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RUSSIAN ECONOMY:

GOALS, CHALLENGES AND ACHIEVEMENTS

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«RUSSIAN ECONOMY: GOALS, CHALLENGES AND ACHIEVEMENTS»:
Сборник научных статей студентов бакалавриата и магистратуры Финуниверситета. Вып.3 / *Отв. ред. проф. М.В. Мельничук; доц. А.С. Комаров.* – М.: Научные технологии, 2018. – 291с.

В сборнике рассматриваются проблемы и правовые аспекты ведения бизнеса, борьбы с коррупцией в цивилизованном обществе, особенности экономической деятельности, основанной на цифровых технологиях, перспективы развития экономического сотрудничества России с другими странами, роль межкультурной коммуникации в развитии экономических связей.

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DIGITAL TECHNOLOGIES IN KEEPING NATIONAL IDENTITY

Agamalov S. S., Lobin I. A., Matrosov A. A.
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Abstract: *The article describes the development of digital technologies and the way they affect national identity. The article considers the significance of digital technologies in preserving and defining national identity in today's world of globalization.*

Key words: *globalization; information age; digital technologies; identity; nationalities.*

With the development of technology in a variety of different areas, we are able to communicate with more speed, more power and with more people than ever before. This power to communicate is dramatically reshaping how we understand boundaries between people and places. It is reducing once a vast and isolated world into the global world. We live in an exciting time because we have unlimited potential to communicate with people around the world. We also live in a traumatic time because this new power creates enormous questions about our different identities, cultures and preferences in communication. National identity is a special feature of a community that distinguishes that community from other communities. Lately there have been a lot of debates over digital technologies and their role in keeping national identity. National identity includes national traditions, customs, rituals, language, folk art, clothing, national cuisine. National identity is best seen in the culture and psychology of people [4].

Some experts consider digital technologies harmful, meaning that they can even destroy national identity by importing a similar way of life across the world, by promoting an international language and neglecting minority languages while other experts consider them indispensable in preserving national identity [1]. This has serious implications regarding the transformation of culture. Globalization and informatization provide a context that ultimately can be at odds with traditional cultural forms. There are certain inherent challenges that globalization and digital technologies, in particular, make upon our understanding of culture. One of these is a tendency to equate "culture" with "nation." Scholars and teachers speak of Russian culture, Chinese culture, or Japanese culture, for example, with little reference to the distinctions between very different groupings within a national boundary. And here we can observe the effectiveness of information technologies as a persuasion device in preserving national identity [3].

We all know that the British islands are small enough, but there are really many nationalities and also languages. And Cornish is one of them. Cornish is the native language of Cornwall, a region in the south-west of Britain. It is a direct descendant of Brythonic, the original native language of Britain. Cornish died out as a spoken language sometime around the 18th century, but it has recently been revived. Today, around 300 people speak Cornish fluently, the language is taught in some schools and BBC Radio Cornwall has a regular Cornish news broadcast. Nowadays digital technologies are taking an important part in the revival of Cornish. Since the revival of the language, some Cornish textbooks and works of literature have been published and an increasing number of people are studying the language. Recent developments include Cornish music and independent films. In 1983 BBC Radio Cornwall started broadcasting around two minutes of Cornish every week. In 1987, however, they gave over 15 minutes of airtime on Sunday mornings for a programme called “Kroeder Kroghen” ("Holdall"). Cornish television shows have included a 1982 series by Westward Television each episode containing a three-minute lesson in Cornish. In 2016 Kelly's Ice Cream of Bodmin introduced a light hearted television commercial in the Cornish language and this has been repeated in 2017 [2].

As has been shown, digital technologies help to keep national originality and Cornish language is an excellent example of this. This is a solid argument in favor of digital technologies. Nevertheless, examples can be given where digital technologies stimulated destruction of national identity. One of them is Dubai. The role of the media in strengthening or weakening the UAE's sense of national identity has come under the spotlight as the debate over the preservation of the Emirati national identity continues. Specialists say the media in the UAE often play a negative role by emphasizing alien "imported" values instead of the indigenous culture. The wide use of English in most private education institutions has also weakened the Arabic language, they said. The media, especially the visual media, tops the list of negative factors. It plays a crucial role in shaping public opinion and cultivating patriotic feelings. Yet, the problem is that UAE media itself suffers from an identity crisis, which negatively reflects on the community. Regretfully, the use of Arabic, which is an important mechanism in safeguarding national and cultural identity, is declining in the UAE, which houses a diversity of ethnical, cultural and religious communities. This has made the Arabic language lose its importance and status - and eventually its role in defining identity. The strong connection between the

job market, and technology and foreign languages, is among other reasons that have contributed to the decline of Arabic [5].

To sum up, we can argue that digital technologies can affect national identity. It must be born in mind that national identity plays an important role in the self-determination of each country separately, because this identity, each culture of the country develops us, develops the entire world system of culture, the system of personal qualities of a person, forms certain values and a certain view of the world in which we live. National identity is a demonstration to the world of the fact that each country, regardless of various factors, has its own striking characteristics that emphasize it. Mass media, television, cinema, magazines and newspapers are a powerful factor in shaping national identity. Technologies should not in any way overshadow the very features that have formed over the centuries but should distinguish a single country from the whole world.

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MASS MEDIA ROLE IN PRESERVING RUSSIA'S CULTURAL IDENTITY

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Abstract: *This article deals with such actual problems of modern society as youth immaturity, disappearance of traditions and culture replacement with mass media. The authors consider mass media to be one of the key instruments for preserving Russia's uniqueness.*

Key words: *mass media; culture; globalization; westernization.*

Nowadays the globalization processes play an important role in all public spheres. Today it is impossible to imagine day-to-day life without such products of globalization as world cinema industry, Internet, social networks and others. Territorial borders become more and more permeable, cultural borders are practically washed away and, as a result, they do not exist for mass media [1, p. 183]. However, in the process of globalization, or to be exact 'westernization', in many countries we can observe replacing national traditions and behavior models with western ones. In fact, Russia was the first to face the problem of mixing peculiar features of own traditions with the borrowed western cultural samples, that led to the fierce debate between 'Westerners' and 'Slavophiles' [1]. Forming in the public consciousness of the Russian people the status of the USA as a single world leader and ideas of Europe uniqueness caused a problem of identity and ambivalence of the national culture.

It would be to the point to mention that culture is the basis uniting a huge number of people constituting the nation. If the basis is ruined, the state will collapse [2]. Today we can observe the decline of social and cultural influence of traditions. So, as the religion stops being a backbone link of society, communications of an individual with the family, culture space and social origin are weakened [4, c. 118]. Traditions have become not the basis, but only an element of extremely pluralistic information space. Therefore, the old mechanisms of social regulation are lost, and the new ones are not ready yet.

As mentioned in some scientific articles [1; 2; 5], western mass media, American movies and 'liberal' Russian media have caused purposeful, methodical destruction of Russia's cultural space of society. We need to recognize that the disseminating of the ideas of nihilism, anarchism, extremism and maximalism among youth prevails. Besides, broadcasting TV series with the propagandized asociality, not filtered news flow, and enchanting talk-shows disable the ability to critical thinking. It is considered to be the reason of not stable ideological principles of Russians [1]. Moreover, it has to be said that in the modern era of the liberal globalization with its absolute recognition of freedom and the right to immoral behavior today, such bad habits as smoking, drugs, alcoholism and others are widespread among youth. And as a result, the actual problem nowadays is an infantilism of young people, indifference to their own destiny, and to the fate of our Motherland.

The Social target program "Culture of Russia" (2012-2018) has become an important step in maintaining the Russian cultural identity; its main purposes are identification, salvation and popularization of cultural heritage of the people

of the Russian Federation. However, at present it is not easy to estimate the results of this program [5]. Moreover, the only target program for maintaining cultural identity of Russia is not enough, the package of measures for ‘policy of memory’ is necessary. Active development of mass media allows introducing the new strategy of promoting national cultural values and dialogue formats of historical education in the global network space. There have already appeared historical movies on television today, for example, the movie "Romanovs: crowned family" or project "Mysteries of Palace Revolutions". Besides, social networks play an important role as well. So, in the social network VKontakte such a community as "History of the Russian state" exists and a lot of people take part in the activities of this community and of many others. Indeed, supporters of ‘eurasianism’ really believe in uniqueness of Russia and according to their ideas, the mission of Russia should be proved by an example of its own specific way, that is the possibility of synthesis of the western and eastern values, the nation and civilization reconciliation [2].

In conclusion it should be noted that globalization has both negative and positive consequences for domestic cultural identity. The Russian society can expect a formation of specific culture only under conditions of reasonable updating last experience, recognition of the historical heritage importance. And in this context, mass media have to become the key instrument of national traditions popularization. As it has been historically developed, Russia is proved to be the ‘idiocrasy’; we need a new idea of reviving the principles of freedom, healthy nation, patriotism, great power statehood and social progress not only for the Russian Federation, but also for the whole world.

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LA FUGA DE CEREBROS EN MÉXICO: LAS CAUSAS Y CONSECUENCIAS

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Abstract: *The article reviews the problem of brain drain in Mexico and its influence on economic system of this country. The authors analyze causes and consequences of the economic phenomenon and suggest possible measures that could resolve this issue.*

Key words: *brain drain, Mexico, immigration, highly qualified specialists, insecurity, education, innovation, science.*

La inmigración mexicana ha sido un objeto de atención de cada campaña presidencial en los Estados Unidos en las dos últimas décadas porque decenas de miles de inmigrantes ilegales mexicanos cruzan las fronteras de los Estados Unidos cada año. Sin embargo, una gran parte de los inmigrantes mexicanos no se ajusta a este estereotipo y son ricos, bien educados y entran al país legalmente.

La fuga de cerebros es un problema grave en muchas partes del mundo ya que los especialistas calificados que buscan y encuentran trabajo en el extranjero no vuelven a trabajar a su país natal. Muchos de ellos tienen que abandonar su patria debido a un alto nivel de desempleo, la opresión política, la falta de libertad religiosa o simplemente la incapacidad de ganar un gran sueldo. Pero México es un país extraordinario y por eso tiene otras razones.

Curiosamente la principal causa de la fuga de cerebros en México, a diferencia de otros países, no es el desempleo. Según la Encuesta Nacional de Ocupación y Empleo (ENOE) sólo el 3.2 por ciento de la población económicamente activa no tenía trabajo en enero de 2018 [1]. Los problemas de tipo económico que determinan la fuga de cerebros en México son la diferencia

en los salarios, el sector privado que no contrata a los alumnos de universidades públicas y el pillaje de los ingenios por empresas extranjeras.

Otro factor muy importante es el clima de inseguridad en el país. México es conocido por sus cárteles, narcotraficantes y secuestros frecuentes de personas ricas. De acuerdo con Mexico Crime Report, informes mensuales que recogen las cifras en México de asesinatos, robos, secuestros, etc., México está clasificada como una región de riesgo extremo. Por desgracia, después de analizar los datos se puede entender que la situación no va a cambiar. En comparación con el promedio de 2017, en enero de 2018 cada aspecto se ha agravado excepto los secuestros [2].

En nuestra opinión, el problema principal se oculta en la educación. La fuga de cerebros se agrava cuando un país tiene un porcentaje bajo de personas con estudios superiores y alto de emigración al extranjero. México cumple, desafortunadamente, con ambas condiciones. México tiene una cobertura en educación superior del 30 por ciento, muy por debajo de países como Chile (el 50%), Argentina (el 60%) y Estados Unidos (82%) [3].

Según el Índice Global de Innovación (GII), la innovación es el factor central que fortalece y conduce el desarrollo de una nación. La ciencia y la tecnología son actores implícitos en el proceso innovador. También son esenciales en el crecimiento económico de cualquier país. Pero los gastos en investigación y desarrollo de México no son suficientes – solo 0,55% del PIB. Los líderes en este indicador son Israel y Corea del Sur con más que 4% del PIB [4].

Cabe destacar que la ciencia no puede desarrollarse sin científicos ni ideas innovadoras. Por eso la primera consecuencia de la fuga de cerebros es el estancamiento del desarrollo. Otra consecuencia es la pérdida de inversión estatal en educación. El gobierno invierte dinero en educación, no mucho, pero invierte y al final no obtiene nada porque los estudiantes abandonan el país y trabajan en el extranjero. Y por supuesto, la pérdida de ingresos fiscales. En Estados Unidos, el número de mexicanos calificados creció 2.9 veces de 2000 a 2015. Si estos mexicanos permanecieran y trabajaran en México, aportarían 900 millones de pesos al año a la economía nacional, que equivale a casi 50 millones de dólares.

Pero los estudios de Mountford (2011) muestran que la emigración tiene algunos beneficios. Cuando las personas se trasladan de los países en desarrollo a los países desarrollados, aprenden nuevas habilidades y conocimientos, que pueden ser de utilidad para la economía de sus patrias una vez que regresen.

Pero en el caso de México es poco útil porque el 70% de los trabajadores calificados no vuelven a “casa”.

¿Después de todo que tenemos? Los problemas de tipo económico basados en la diferencia en los salarios entre México y, por ejemplo, EE.UU. y que el sector privado no contrata a los alumnos de universidades; un alto nivel de inseguridad en el país y el bajo nivel de inversiones en educación y ciencia. Creemos que el gobierno mexicano debe aumentar la financiación de la educación y la ciencia y, por supuesto, luchar más eficazmente contra el crimen para marcar una diferencia. Por su parte, los mexicanos, especialmente los jóvenes, tienen que ser más patrióticos, no abandonar el país y dar lo mejor para cambiar la situación económica y política en México.

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TACKLING CORRUPTION IN THE PRESERVATION OF CULTURAL HERITAGE

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Abstract: *The article deals with the problem of corruption in preserving cultural heritage in Russia and provides the examples of such practices. It outlines the main points of the national anti-corruption policy and identifies the flaws that hinder the policy. Based on the research, some improvements to the national policy are proposed.*

Key words*: cultural heritage, corruption, anti-corruption, civil servant.*

The question of researching and preserving the world’s cultural heritage is particularly acute today. States have recently been allocating significant financial resources for the preservation of cultural heritage. This trend is particularly traced in the national policy of the Russian Federation. It is

important to note that the state is interested in using all the funds efficiently for the purpose. In view of this it is necessary to assess the risk of corruption in the allocation of funds.

According to the Russian Federal Anti-Corruption Law, corruption is the abuse of power by an individual and any illegal use of authority, contrary to the legitimate interests of society and the state and aimed at gaining personal benefit in the form of money, valuables, property rights for themselves or for the third parties [4]. In a broader sense, the concept includes bribery, fraud, embezzlement, extortion and money laundering.

The corruption level in Russia has been especially high for many years, according to the research conducted by Transparency International annually. The Corruption Perception Index of 2017 shows high corruption burden in the Russian Federation which is rated 135th (out of 180) [5].

In this regard, there is an increased corruption risk in financing the national program for the preservation of cultural heritage. It can take place at the bureaucratic stage. The illegal re-registration of the Borodino Field Museum-Reserve territory by the ex-official M. Sklueva is an example. Independent auditing found violations in making 10 resolutions on changing the status of the land from "conservation area" to "cottages construction site". Almost 40 hectares of the protected land, including the Rayevsky redoubt, which are a part of the cultural heritage of the country, were sold in 2011 by the ex-official.

As a result, the historical landscape of the Borodino Field which has high historical and cultural value was distorted by construction with the damage estimated at 2,500,000 rubles to the local budget. According to Article 159 Part 4 and Article 286 Part 2 of the Criminal Code of the Russian Federation, for fraudulent actions and abuse of power, M. Sklueva was sentenced to 7 years of imprisonment and a fine of 150,000 rubles [2].

The risk can also take place at the stage of tendering for restoration of an object of cultural heritage. For example, in 2015 the Ministry of Culture of the Russian Federation allocated 610,000,000 rubles for the restoration of the Naryn Kala Fortress in Derbent, a cultural monument of international importance and under the protection of UNESCO. However, the tendering procedure conducted by the Ministry of Culture under the supervision of the Deputy Minister G. Pirumov did not meet the requirements of the law. To begin with, the procedure lasted for about a month, although according to the standards the minimum period is not less than six months. Most importantly, the official's friends were

appointed as restorers, which resulted in embezzlement and poor-quality restoration.

In fact, the restoration work in Derbent was later called "vandal". Take for instance the break in the northern fortress wall of Derbent. The reason for damaging the wall was boosting profit from two marketplaces on both sides of the wall. The officials approved merging of the two nearby markets by breaking the historic wall violating its preservation status and doing so for their personal benefit. The official in charge of these restoration works G. Pirumov was sentenced to 1.5 year imprisonment and a fine of 300,000 rubles. However, he was released from the courtroom in view of the period of his imprisonment during the time of investigation. Other suspects were released, too [1].

It should be noted that Article 159 Part 4 of the Criminal Code of the Russian Federation prescribes punishment in the form of imprisonment for up to 10 years with a fine of up to 1,000,000 rubles, and Article 286 Part 2 – a fine of up to 300,000 rubles, or compulsory labour for up to 5 years, or imprisonment for up to 7 years, with deprivation of the right for certain posts or engagement in certain activities for up to 3 years or without such [3]. Having compared the punishments in the two cases above with those prescribed by the law, we can conclude that the sentences did not reflect the degree of the damage caused. Unfortunately, these examples are not unique, which therefore should be the grounds for reviewing the state policy on preventing corruption.

The main legislative acts in the area of anti-corruption activities are the Federal Law No. 273 "On Corruption Counteraction" and the Presidential decree "On the National Anti-Corruption Plan". Anti-corruption activities mean the activities of public authorities, legal entities and individuals within their empowerment: 1) to prevent corruption; 2) to combat corruption; 3) to minimize the consequences of crimes.

The concept of the state anti-corruption policy is as follows: 1) the development of toolkits on effective anti-corruption policies and programmes at the level of creating environments, where the staff of state and municipal bodies carry out their duties; 2) the adoption of anti-corruption standards according to the specific sphere of social activity; 3) the guaranteed availability of justice.

However, there are a number of flaws that hinder the national policy.

1) Ambiguity of interpretations and formulations in regulatory acts. The existence of vague formulations in the Federal Law No. 273 leads to its selective application in practice. It, in turn, allows the judiciary to showcase the

anti-corruption policy in some high-profile cases and trials, which, however, is not similarly implemented on a daily basis.

2) Inefficiency in revealing illegal income of civil servants. According to Article 8 of the Federal Law No. 273 civil servants are obliged to provide data on income and property. However, this practice hasn't brought the expected effect, as it proved to be inefficient in revealing illegal income and offenders.

3) Lack of practice in preventing and resolving the conflicts of interest. According to Articles 10 and 11 of the Federal Law No. 273, the conflict of interests in the public and municipal service has to be prevented and resolved. However, the commissions on settlement of such cases work ineffectively due to the lack of practice in comparison with foreign experience [4].

The conducted research lets the group of authors propose a number of improvements to the national anti-corruption policy. They are: 1) control over officials' expensive purchases and illegal benefits through greater transparency; 2) changing the penalty system in accordance with the severity of crimes; 3) modernization of public opinion on corruption including promotion of the necessity to inform the police about the cases of corruption.

To conclude, it is important to emphasize that corruption results in damage or even destruction of our cultural heritage. That is why to preserve the cultural component of the society for the future generations it is necessary to modernize the national policy and take drastic measures to tackle corruption.

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IS ETHNO TOURISM REALLY A BRIDGE ACROSS CULTURAL AND NATIONAL BOUNDARIES?

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Abstract: *The article describes a new and popular form of tourism – ethno tourism. It analyzes the influence of ethno tourism on visitors and tribal communities and compares the positive and negative sides of this new phenomenon.*

Key words: *ethno tourism; cultural heritage; globalization; cultural dialogue.*

Global tourism is now generally recognized as one of the largest industries in the world and one of the most significant sources of employment and Gross Domestic Product (GDP). Tourism always unites people of all ages, races and cultures through the types of tourism; however, the one that has been gaining popularity lately is ethno tourism. But it has a controversial future.

When talking about the future of ethno tourism, we need to take a look at the history of tourism in general (ethno tourism in particular) and analyze some current trends. Africa was selected as a sample group for research. Since 1970s through to the 1990s the amount of tourists arriving in Africa has increased by more than 800% [1].

Putting this into perspective, this is a continent with numerous constraining factors, financial, in particular. Taking into consideration the fact that promoting African tourist attractions and sites abroad is rather problematic, these numbers are more than impressive. The quality of infrastructure and hosting facilities are also mediocre. These restraining factors prove that there is some foundation that can be built upon in the form of a new, progressive type of tourism – ethno tourism.

Whilst analyzing Africa we came across one observation concerning the future of ethno tourism – with the majority of tourists being westerners, who have the largest amount of GDP per capita, Europeans shall continue to dominate the tourist market, meaning that their need for “non-western” and exotic experiences will take over; creating a sharp increase in the demand for and popularity of exotic and non-western sites.

Another factor that played a key role in the appearance and further development of ethno tourism was globalization. Countries coming together and people moving from place to place so freely is something that was unimaginable 100 years ago. Globalization is, in fact, a dialogue. This implies that there are at least 2 sides to this dialogue. In the case of ethno tourism these sides are the visitors and local communities [2].

Ethno tourism wouldn't have been able to develop had it not been at least partly a positive phenomenon. The benefits for both sides are vast.

Obviously, one of the benefits of visiting different places and different people around the world is to expand a person's perspective, to see something different and to gain new insights on different people from different parts of the world. As a person's perspectives are expanded, travellers will be able to see things from multiple angles. Gaining a better understanding of one group's culture will indirectly enhance the awareness of one's own culture. As people have a better understanding of each other, and how different people may adopt a different culture, they may become more tolerant, and conflicts in society can be avoided.

The benefits for the tribal communities are numerous. Firstly, ethno tourism provides extra employment opportunities for locals and a chance to gain income. A well-balanced tourist programme also strengthens traditional values and cultural heritage [1].

However, nothing is without a dark side, unfortunately. Ethno tourism has birthed and continued to develop several terrible negative sides, the most severe of which is the commercialized nature of the phenomenon. Several sizeable tourists conglomerates can and do take control of the tourist industry, exploiting indigenous tribes into slavelike conditions, tricking and taking advantage of them. What's worse – this being a rather profitable business, however, the locals themselves receive only a minute fraction of what is earned. The rest is leaked abroad to foreign countries, where these companies are based [1].

Another problem that arises has to do with the cultural heritage of indigenous groups. Since cultural traditions and rituals essentially become a tourist attractions, to stay in the business you need to provide entertaining "shows" that can compete on the tourist market. Of course, not all rituals, frankly speaking, may seem interesting or exciting at first sight. This means that these "boring" traditions and rituals will eventually be moved aside and, with time, forgotten. Locals may also be asked to exaggerate some rituals so they

seem more appealing. This has a great negative toll on the cultural heritage of these groups, as a serious portion of their cultural identity is merely lost [1].

Taking all of this into consideration, the answer to the question "Is ethno tourism really a bridge across cultural and national boundaries?" is yes. Definitely, ethno tourism promotes cultural dialogue and interaction. However, this is a very fragile and tender thing. The slightest misbalance may lead to irreparable and dire consequences.

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BITCOINIZACIÓN EN VENEZUELA: ¿VÍA DE ENRIQUECER O COLAPSAR LA ECONOMÍA?

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Abstract: *The article is devoted to the development of such a phenomenon as bitcoinization of the economy. In this article, the author examines the Venezuelan economy and how it tries to overcome the crisis with the help of a crypto currency such as bitcoin.*

Key words: *bitcoin, bitcoinization, crisis, crypto currency, investments, Venezuela.*

En septiembre de 2017, Venezuela estuvo a borde de un default provocado por la deuda pública. Venezuela fue uno de los países más ricos en términos de PIB per cápita, pero hoy día la economía del país se caracteriza por altas tasas de hiperinflación. En Venezuela no circula el dolar norteamericano, porque los hay muy pocos. A pesar de estos factores en Venezuela se registra el proceso de bitcoinización, es el primer ejemplo en la historia de la bitcoinización en un estado soberano [1].

Entre 2014 y 2016, el número de usuarios del mercado de bitcoines venezolano ha aumentado de un centenar a más de 85.000 personas[1]. Al mismo tiempo, la electricidad barata y subsidiada y la devaluación de la moneda venezolana impulsaron a varios empresarios jóvenes a construir una granja minera.

El Bitcoin viene cobrando la popularidad en Venezuela a grandes pasos. Cada vez más personas en el país lo ven como una alternativa a la depreciación

diaria de la moneda nacional, el Bolívar. La popularidad de la criptomoneda entre los ciudadanos de Venezuela se apoya en las tasas récord de las transacciones en las bolsas locales.

No es de extrañar que muchos venezolanos vean los beneficios obvios de bitcoinización en términos de inversiones y una protección contra una mayor depreciación de los fondos disponibles a largo plazo. Según el DiarioBitcoin en la última semana de julio de 2017, las transacciones de la criptomoneda en Venezuela en la plataforma LocalBitcoin vencieron el récord de 117,1 millones de bolívares (11,7 millones de dolares) y en la primera semana de agosto - 141,7 millones de bolívares (14,1 millones de dolares) [2]. Sin embargo, gran número de operaciones se efectúan a través de SurBitcoin ya que la plataforma tiene gran capacidad operativa.

Dado el auge que de Bitcoin, durante los últimos 6 meses del 2017, el precio de la criptomoneda se multiplico por tres. Segun los datos de Bolsa Yobit en el período entre mayo y agosto de 2017, el valor del Bitcoin fue de 1.800 dólares, mientras que en noviembre de 2017 el valor de Bitcoin superó 7000 dólares [3]. El volumen de transacciones del Bitcoin (en dólares estadounidenses), de acuerdo con la misma fuente, creció casi 38 veces: desde mayo de 2017 el número de transacciones ascendió a 390 000 mil millones de dólares, y en el mes de noviembre del mismo año, la cifra aumentó hasta 1 460 000 mil millones de dólares, pero es muy difícil pronosticar el desarrollo de bitcoin, porque es una moneda inestable [3].

Uno de los aspectos importantes de la economía venezolana, es la estricta regulación estatal de los precios. El nivel de vida en el país es, de hecho, uno de los más bajos del mundo, pero los venezolanos al menos pueden presumir de unas facturas de electricidad muy económicas. El precio medio de 320 kWh de electricidad en Venezuela es de 0,06 dólares, lo que permite ganar con bitcoines sin salir de casa. Aun con un hardware anticuado se puede ganar mucho más de lo que gana un ingeniero con 160 horas mensuales [4].

Sin embargo, con la minería de bitcoin en Venezuela, no todo es tan fácil. A pesar de la falta de medidas regulatorias contra las criptomonedas, los medios de comunicación progubernamentales citan al Bitcoin como una amenaza al sistema monetario nacional y una moneda de ciberdelincuentes [5].

A pesar de que las condiciones para el desarrollo del mercado de las criptomonedas en Venezuela pueden haber sido satisfactorias, el futuro se presenta muy incierto. Una catástrofe financiera que se desancadenó en Venezuela en el año 2017 es un ejemplo de inviabilidad de la ideología

socialista y la aspiración de los bancos centrales hacia un control total sobre la situación en el mercado financiero.

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THE OECD GUIDELINES AS SOURCE OF RUSSIAN LEGISLATION IMPROVEMENT

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Abstract: *The article describes some aspects of using OECD Guidelines in different countries. The main emphasis refes to link between Russian tax legislation and OECD regulations. Some problems of counry-by-country reporting are raised.*

Key words: OECD Guidelines; Tax Code of Russia; country-by-country reporting; transfer pricing.

The international tax system of Russia has been reformed since 2015. And from 1 January 2018 the international automatic exchange of country-by-country reports for international groups of companies came into force. This innovation appeared in the framework of the implementation of the BEPS Plan.

In view of the recent changes in the MNE legislation, it is necessary to understand how the data exchange will work and what difficulties we may face with.

Although most countries agree on the application of the OECD Guidelines, some of its aspects are criticized even in countries - members of the Organization. In particular, the use of classical methods is difficult for companies that that are engaged in e-Commerce.

It is worth noting that the Guide is adopted as a recommendation of an international organization, it means that it cannot be described as a legal act. It is not legally binding, regardless of whether the country is a member of the OECD or not [4].

Courts in different countries use the Guide on different grounds. Some countries use the OECD Guidelines as a law on the basis of which the court can make a decision, others – only as a document that allows to understand the terminology [5].

The Ministry of Finance in a number of its clarifications refers to the OECD provisions, but it is not indicated on what legal grounds they are used [3]. At the same time, the Ministry's letters say that there is no agreement between Russia and the OECD, so the Russian Federation has no obligations on the application of the TP Guidelines. This means that it can only be used if it does not conflict the provisions of Russian tax law.

However, it seems difficult to identify a legal link between the OECD Guidelines and the Tax Code of Russia on controlling prices in transactions between related parties.

On the one hand, the possibility of using the OECD provisions in the application of national TP rules is legally limited and raises a number of questions. On the other hand, the similarity of national rules and regulations in the Guide is evident.

The OECD Guide can be used to fill gaps in national legislation. Tax control rules are based on economic laws that affect the price on the market. They are used to calculate the price at the arm's length principal. Therefore, the logic and purpose of the transfer pricing methods of the tax code and the OECD have much in common. And when the Russian Tax Code has a more general rule than the Guidelines, the OECD recommendations can be used as filling gaps in Russian legislation [1].

There are a couple of other main issues that may be faced by the Russian taxpayer – a member of the MNE.

First of all, the international automatic exchange of country-by-country reports does not fully work. It happens because not all countries have signed the Multilateral agreement of the competent authorities on the automatic exchange of country reports or signed it later than others.

In addition, the law №340-FZ introduced such terms as "associated organizations", "significant contracts" and "significant transactions"in the Tax Code. At the same time, the criteria of association and esseniallity for the

Russian taxpayer are not established, and in accordance with IFRS, their determination requires the use of an appraisal judgment, which may also generate disputes with the Tax authorities in the future.

Based on the analyzed practice of applying the OECD Regulations, it can be concluded that, despite the difference in the approaches of different countries, at the moment they play an important role in the development of transfer pricing around the world, as well in Russia [2].

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IMPROVING THE BUSINESS PROCESS OF BUYING OUT CARS WITH MILEAGE

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Abstract: *In this article opportunities for improving the process of used car assessment are presented. A lot of auto dealers sustain financial losses due to incorrect used car assessment. Existing car valuation models are imperfect because they don't have enough data sources to analyze situation at the used-car market. Moreover, these models often have inexact valuation criteria, because they're depending only on expert's qualification. The article presents a new approach that includes using Internet resources to increase analytical base and neural networks for increase accuracy of valuation model.*

Key words: *car valuation model, neural networks, used car assessment, improving the business process, valuation criteria.*

In "AUTOSTAT" analytic agency opinion in 2017 only one in five of sold cars is new. Indeed, in Russia the share of used cars sales has been

increasing since 2015 [2]. At the same time, a lot of auto dealers sustain financial losses due to incorrect used car assessment. Often the actual price of the car is more than selling price. The problem is that a valuation model of the car with mileage has a limited number of evaluation criteria and data sources to analyze a situation around the used-car market [1]. The term "car valuation model" means the set of rules and criteria for estimating the cost of the car. It is important to find a way of improving the processes of car assessment in order to reduce financial risks of auto dealers. The appearance of new ways of selling cars and the development of expert systems opens up potential opportunities for changing the valuation model.

A limited amount of data sources for analysis is one of the most significant valuation issues that can be solved by using data from internet marketplaces. An amount of data can have direct relation to successful result [4]. Usually an appraiser of used cars analyzes a lot of information about previous sales and an average current price of similar cars. However, data that is collected by an auto dealer during its existence can't provide sufficient quantity of information for a car valuation model.

According to the research of the agency "AUTOSTAT" only 18.6% of car owners apply to dealerships for sale of used cars [1]. So at best an auto dealer will have less than 20% of data about sales of cars. Nowadays more and more people use internet marketplaces for selling cars with mileage. The survey conducted by the agency "AUTOSTAT" in March 2017 had almost 1600 people who answered the question: “What web sites do you prefer to sale your car?”

Figure 1 illustrates the poll results. Such sites as Avito.ru, Auto.ru and Drom.ru gained a majority of votes. Other websites collected too little percent of votes. And 9.4% of respondent use other resources for selling used cars; they are auto dealers, social networks or less known web sites [5]. Involving databases of even one of the three most popular websites will increase an analytic base and improve the accuracy of the car assessment.

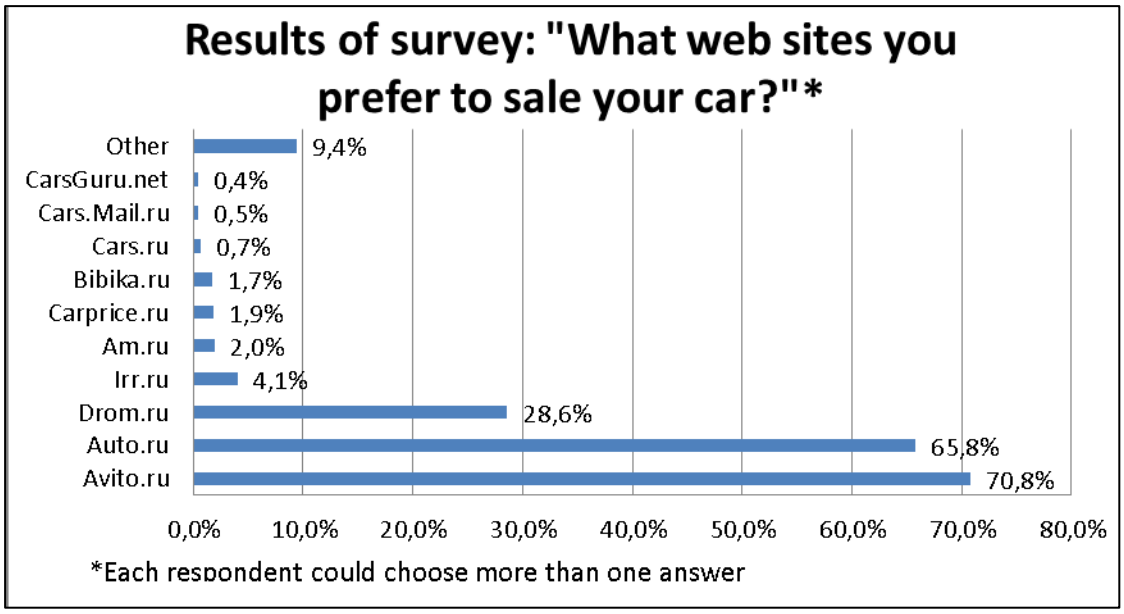

Figure 1: Results of survey: “What web sites you prefer to sale your car?”

Source: Online survey of visitors to a website “Zr.ru”, March 2017

Neural network also could improve a used car valuation model. The used car valuation model is a multi-criteria model built on expert assessments [3]. It means that the accuracy of model setting depends on the competence of experts. Moreover, this model becomes out-of-date too fast, because paying for services of specialists who can review the model even every week is unprofitable. Neural network could help to correct drawbacks of the current model. Firstly, it could dynamically update criteria's significance, when the market conditions are changed. In addition, such systems can predict the time of the sale of cars and adjust the price, considering market trend and storage expenses of the car.

This article reveals opportunities for improving the process of used car assessment. The main problem of current process is poor accuracy of valuation model because of lack of data about previous sales and inexact evaluation criteria. To solve these problems two ways are presented. The first one is using data from popular internet marketplaces which can help to increase analytic base for car assessment. The second one - transition from expert estimate of criteria to neural networks could increase accuracy of the model and make it more flexible. However, this approach has several limitations. First of all, it's an expensive solution and only large companies can afford it. In addition, there is a risk that some web sites won't provide access to their database. Such a web site as Auto.ru has open application programming interface (API) that allows getting different information about advertisement for a used car, however it can change its format of data exchange, which means necessity for reworking module of

integration. So, this approach requires technical support. Despite these limitations the total cost of ownership is no more than a future profit.

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LA RUSSIE ET LA FRANCE. LA PERSPECTIVE DE LA COOPÉRATION BILATERALE DANS LE TOURISME

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L'article présente les principaux domaines de la coopération de la Russie et de la France dans le domaine du Tourisme, fournit également des statistiques sur la fréquentation par les touristes des deux pays.

***Les mots clés**: la coopération bilatérale, la Russie et la France, la statistique de touristes.*

Historiquement, la Russie et la France sont liés depuis longtemps. Les empereurs russes et l'aristocratie ont constamment visité la côte d'Azur, puis Paris, et aussi Alexandre II a passé beaucoup de temps à Paris. De nombreux écrivains et poètes russes aussi sont partis en son temps en France. Quelles sont les perspectives de coopération dans le secteur du Tourisme entre ces deux pays?

La France est intéressée par le développement de la coopération avec la Russie dans le domaine du Tourisme, a déclaré l'ambassadeur de la France en Russie Stanislas de Labule à l'ouverture de la conférence internationale sur le développement des liens touristiques entre les régions des deux pays [1].

Selon le chef adjoint de l'Agence Eugène Pisarevski, l'expérience de la France dans le secteur du tourisme peut être très utile pour la Russie.

Maintenant, en France, 26 régions, et chaque région est tout à fait indépendamment détermine la politique de l'investissement dans le Tourisme, le développement de l'infrastructure touristique et les événements qui devraient être développer en premier lieu pour attirer les touristes.

2017 a été l'année du Tourisme culturel entre la Russie et la France. Moscou et Paris "expriment l'espoir que cette initiative contribuera à la croissance des flux touristiques dans les deux sens, servira à renforcer davantage les liens bilatéraux et la coopération entre les peuples de la Russie et de la France".

Le directeur général de la mondialisation, de la culture de la France, Anne-Marie Decot a déclaré que les parties ont notamment discuté des possibilités d'échanges universitaires et d'étudiants entre les pays et la simplification de la délivrance de visas à cet égard [2].

Le représentant spécial du président de la fédération de Russie sur la coopération culturelle internationale, Mikhaïl Chvydkoï, à son tour, a noté que les relations de la Russie et de la France ont un caractère stable et en développement. Selon lui, "la sphère de la coopération humanitaire va se développer indépendamment de la situation politique".

Les touristes russes sont attirés par les voyages à Paris, à la Côte d'Azur. En hiver, la direction principale est les Alpes. Selon les représentants de l'ambassade, la croissance du Tourisme est due à la découverte de touristes russes d'autres régions de France-la Bretagne, l'Alsace, la vallée de la Loire et les autres.

En 2015, 600 mille de touristes russes ont visité la France, d'après les données du chef de la mission d'Atout France en Russie et de la CEI (Communauté des États indépendants), Inessa de Korotkoff. Le nombre de touristes a diminué par rapport à 2014 année de 11%. Il faut noter que c'est beaucoup moins que le taux moyen de la chute de la flux sortant de la Russie, qui, selon le Service fédéral des statistiques de l'Etat (Rosstat), était de 31,5% l'année dernière. Plus de 65% des visas délivrés sont multiples valable pour un à

cinq ans. En 2017 le nombre de touristes russes qui visitent la France, est tombé à 500 mille personnes.

Quelle est la situation avec les touristes français en Russie? En 2016, il y avait deux fois plus de touristes français en Russie. «Pour les français, la Russie est maintenant devenu un pays à la mode et rentable pour le voyage, beaucoup plus rentable que les pays baltes, la République tchèque. La même qualité des services qu'ils reçoivent en Europe, il est devenu 2-3 fois moins cher, donc la demande a fortement augmenté», – a dit Alexey Krylov, le président de la société «UTS».

Selon les experts, les touristes de la France préfèrent le Tourisme cognitif plus que la station balnéaire.

Il a noté qu'il y a le troisième aspect: après les attentats en Europe, il est nécessaire pour les français de créer un flux régulier de touristes et une image positive, et la délivrance de multiples visas aux touristes est un outil très efficace.

En conclusion, il est intéressant de noter que l'assouplissement du régime des visas pour les deux pays n'aura que des conséquences positives. Cette décision augmentera le flux de touristes. On peut aussi ajouter, que les deux pays devraient développer et élaborer des programmes spéciaux pour attirer les touristes. Cette coopération sera mutuellement bénéfique pour l'économie de la Russie et de la France. En outre, le tourisme peut contribuer au développement du dialogue culturel entre les deux pays.

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SMART CITY AND HERITAGE PRESERVATION WITH THE HELP OF MODERN TECHNOLOGIES

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Abstract: *This article discusses the concept of "smart city" as a general vector of further socio-economic development of cities, which can lead to the creation of a qualitatively new standard of living of the population, provided that the preservation and organization of proper management of cultural heritage.*

Key words: *"smart" city; intellectual potential, directions of development, cultural heritage, environment.*

The problem of preserving cultural heritage in recent decades has become one of the main cultural policies of many countries in the world. Attention to this sphere is conditioned by the tendencies of the unification of the world under the influence of globalization processes and the transition to an information society that negatively affects the formation and maintenance of national and cultural identity. Market economy leads to processes of commercialization of culture and intensive formation of consumer consciousness, oriented to universal standards.

At the same time, the quality of cultural reproduction does not provide sufficient stability, so necessary for a society at the stage of social and economic reform. In this situation, the society grows the understanding that ensuring the country's security, adequate and timely response to external and internal challenges, creating conditions for intensive economic development is interconnected with the spiritual development of society, the development of the sphere of culture, and the level of its state support. The cultural heritage includes social memory, natural objects of Russia, cultural objects. People are interested in knowing their origin and their ancestors, their way of life, and they are also interested in creating a culture for future generations. Here, there is a need to use modern technologies to create a "Smart City". "Smart cities" can be defined as systems that integrate the following directions (axes) of activity within a single city space [1]: ***smart economy; smart mobility; smart environment; smart people.***

These four axes are based on theories of regional competitiveness, efficient use of natural resources, transport mobility and ICT of the urban economy, the priority formation of human and social capital, improving the quality of life, and citizen participation in city management.

Smart economy - is the products of high-tech sectors (microelectronics, personal computers and all kinds of gadgets), information technology and services unfamiliar until recently, primarily financial ones. At the same time, one of the priorities is the widest possible introduction of new institutions and "progressive" management technologies at both corporate and state and interstate levels.

Water saving faucet. Smart economy consists in rational distribution of the budget and resources. The essence of such a crane is that water passes through 2 pipes and is split at the end. This saves water resource by 15-20%.

Lanterns on solar batteries. Replacing city lights with solar-powered lights will reduce electricity costs many times and give the city a futuristic look.

Smart mobility - is based on an intelligent transport system. This means the integration of operational management of all modes of transport and the ability to respond to events in real time. It is important that the transport system is an integral part of the entire "smart city" system and therefore should have a user-friendly interface.

Smart environment. In modern conditions, there is a need to use network infrastructure in order to improve economic and political efficiency and ensure social, cultural and urban development [2]. The infrastructure of the "smart city" helps the communal sector, enterprises and households to increase economic efficiency; reduce the burden on the environment; ensure the comfort and safety of residents and visitors of the city. This is achieved through a system of links between modules of transport and engineering systems, the creation of ergonomic control loops, as well as increasing the level of awareness and efficiency of city services. With the transition from petrol to electric cars, it will be possible to purify air from various chemicals. This is an eco-friendly version of the car, which will create a favorable environment for people's lives.

Smart people. Neither individual cultural institutions, nor individual states, nor transnational companies, nor citizens, nor the world community as a whole can cope with the challenges associated with digital heritage. To our help, the design and creation of a "smart museum" can help, in which the capabilities of modern information technologies are integrated, allowing visitors to enter into an interested, interactive, contact with smart exhibits**.**

3D-museums. This idea is to create 3D models of cultural objects to create an innovative museum. Exhibits can be seen from all sides, to present it as it was many years ago. Museums will acquire a modern look, and exhibits will remain for many centuries.

Thus, "smart city" is a place in which conditions for life and activity of people, preservation, creation and transfer of culture to future generations are created.

It is a city where people are interested in preserving and transferring cultural heritage through standardization of information, its digital and other processing with the help of modern technologies. Transformation of industrial

cities into "smart" is a global trend, as well as a real achievable prospect for Russian cities.

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DIGITAL HERITAGE AND ADVANCED TECHNOLOGIES IN THE TOURISM INDUSTRY

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Abstract: *This article focuses on the synergy between tourism and culture, highlighting such modern trends as virtual and augmented reality. In the conclusion, authors share their thoughts on the future of cultural heritage implying its digitalization.*

Key words: *culture; tourism; digital heritage; virtual reality.*

Since prehistoric times, man has been traveling for centuries in search of food, and, more recently, for business reasons [4]. At the same time, a critical component for the tourism sector is the global diversity of cultures and the unique experiences they can provide [2]. For this reason, these concepts have a mutually beneficial relationship which can both strengthen the attractiveness of a destination and preserve its heritage for future generations.

At the beginning of the 21st century, cultural tourism is becoming extremely popular: famous buildings, art galleries and cathedrals are recording high numbers of visitors. According to the recent UNWTO study, around 40% of international tourists undertake some form of cultural activities during their travel, making at least one museum visit [3]. In order to improve potential visitor’s interpretation and travel planning, digitization of museums, collections, and archives has become a good practice of cultural tourism development [6].

To start with, modern technologies are being used in museums worldwide for day to day activities and provide information on exhibitions, museum products, events, opening hours, ticket prices. What’s happening now is museums go online: they use social media tools such as blogs, Facebook, YouTube to interact with their audiences. Social media tools help museum

professionals to provide efficient service to their customers and attract more visitors [5]. In brief, more tourists are drawn into the heritage sites as never before due to the rapid change in museums in this electronic era.

Although most museums do not allow physical contact with the associated artifacts, there are some that are interactive and encourage a more open approach. Modern trends have broadened the range of the subject matter and introduced many interactive exhibits, which give the public the opportunity to make choices and engage in activities that may vary the experiences from person to person. With the advent of the internet, there are growing numbers of virtual exhibitions, i.e. web versions of exhibits showing 360-degree images and playing recorded sound.

In addition, one of the most important and essential components of cultural tourism development is virtual tourism. This type is based on the VR or virtual reality – a simulation of the real world or sometimes an imaginary world [7]. Such 360-degree immersive experience is very important in tourism, where a lot of things depend on visual stimulation. It can be also used in tourism organizations for management and marketing purposes, entertainment, accessibility, education or heritage preservation. To experience the virtual reality, a special headset is required. Some of these devices already have a built-in display, but it is a more advanced and costly equipment.

Though, several businesses in tourism have already picked up the VR aspect and have implemented virtual tours. This "try-before-you-buy" business model will be standard in the travel industry, and VR is going to be a standard feature of the in-flight entertainment system in 2030 [1]. As well, one of the most valuable services in VR will be for travelers to recreate their trips when they return: the "re-experience" market will be one of the largest new travel markets.

Recent trend to mention is the augmented reality – an integration of digital information with the user’s environment in real time. Unlike the virtual reality, which creates a totally artificial environment, augmented reality uses the existing environment and overlays new information on top of it. The launch of AR on smartphones means users will have access to up-to-date information according to their needs and preferences. Using AR apps, tourists can get real time directions, translate city navigation signs, trace the evolution of monuments, obtain interactive guides, take part in travel games and city tours. This will soon dictate the future of industries, and travel industry should get started already.

In conclusion, we would like to emphasize that modern technologies have gone a long way to influence growth and development of the tourism sector in very many ways. Tangible heritage is becoming digital and more accessible. Such applications of innovative technologies can also be important in terms of reducing language barriers. We believe that tourism, which brings tourists and local communities into contact, has a vital role to play in facilitating dialogue between cultures. In the modern context, cultural heritage is opening new horizons, utilizing technology advances.

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REINICIO DE LAS RELACIONES ENTRE RUSIA Y CUBA EN EL ÁMBITO ENERGÉTICO

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Abstract: *The article describes some aspects of relationship between Russia and Cuba during last 60 years. There will be described which event served as the beginning of the commonwealth and how the relations were developed during that period.*

Key words: *political relations, energy field, Russia, Cuba, Zarubezhneft, Gazprom.*

Las relaciones diplomáticas entre Rusia y Cuba empezaron en los años 60 y duran ya más de 55 años. Después de la disolución de la URSS las relaciones empeoraron, pero ahora podemos hablar de una etapa nueva en la esfera política,

económica y cultural con nuevos contratos mutuamente ventajosos en la esfera del comercio y energética, los vínculos culturales fuertes, la salvaguardia de los intereses recíprocos en la arena política.

Una parte de la cooperación está en el ámbito de suministro de petroleo. Cuba abrió la posibilidad de inversión extranjera en su sector energético en 1991 y, desde entonces, se estima que las compañías internacionales han invertido más de 2.800 millones de dólares en la exploración y producción de petróleo [4].

Hasta 1990, el suministro soviético para la industria petrolera de Cuba era uno de los más grandes de América Latina. Cuba era el único importador importante de petróleo crudo soviético en esta región [2]. En la segunda mitad de los años 80 la URSS ayudaba a Cuba en el desarrollo de yacimientos. Pero desde 1990 la cooperación se suspendió. En este período las dificultades en vías de la interacción se asociaron con cambios en la política y economía cubana. Desde la mitad de los años 90 unas compañías energéticas rusas intentan volver a cooperar, una tendencia que se intensifica en los años 2000.

En los últimos años las entregas de petróleo de Rusia a Cuba no han tenido un carácter sistemático. Servicio Federal de Aduanas informó que había entregado 17,1 mil toneladas de productos derivados del petróleo a $ 11.3 millones de dólares de 2010 a 2015 [3].

En 2011 Gazprom Neft firmó un contrato de extracción de petroleo en el Golfo de México e invirtió 12 millones de dólares en un proyecto de prospección de petróleo de la zona económica de Cuba, en el Golfo de México, cerca de EE.UU [1]. Desde 2011 “Zarubezhneft” y la compañía cubana Cuba Petróleo (Cupet) firmaron ya cuatro acuerdos para la exporación geológica y explotación de yacimientos petroleros. El gigante petrolero ruso Rosneft también anunció en 2014 la firma de un contrato con esta compañía para mejorar la explotación de un yacimiento cubano. Según el documento, las dos empresas “estudiarán juntas el desarrollo y las condiciones de explotación del bloque centro-este del yacimiento Varadero para identificar los medios que permitan mejorar la eficacia de la producción y aplicarlos.

En marzo de 2017 Cuba y Rusia firmaron en La Habana tres contratos de asociación económica para la exploración y explotación de petróleo.

El presidente Raúl Castro e Igor Sechin, jefe del gigante petrolero ruso Rosneft, se reunieron en La Habana el sábado 16 de diciembre 2017, informó la agencia de noticias Reuters, al describir la reunión como “la más reciente señal de que los dos países están preparando un importante acuerdo energético”.

Rosneft “comenzó a enviar algo de combustible en mayo 2017 a Cuba, al tiempo que Estados Unidos, bajo el mandato de Donald Trump, comenzó a revertir una frágil distensión iniciada por el expresidente Barack Obama”, continuaba Reuters. “Fueron las primeras entregas significativas de combustible ruso desde principios de la década de 1990”.

Según Reuters en octubre 2017, “después de que Sechin se reuniera con el ministro cubano de Energía Alfredo López Valdés en Moscú” Rosneft anunció que “estaba considerando aumentar los envíos de petróleo a Cuba y mejorar la capacidad de refinación de la isla”. Reuters señaló que “Cuba consume 140 000 barriles por día en productos petrolíferos” [5].

En materia nuclear Cuba y Rusia relanzan ahora sus relaciones con un acuerdo para el uso pacífico de la energía atómica firmado en 2016. De acuerdo con el proyecto Cuba y Rusia cooperarán en investigación básica y aplicada en el campo de la energía pacífica nuclear, medicina nuclear, gestión de residuos radiactivos y etc. Pero los proyectos bilaterales se encuentran todavía en la fase inicial, lo que no permite estimar el volumen económico o material de este contrato.

Para concluir vale la pena señalar la importancia de las relacciones energéticas bilaterales, en primer lugar, para Cuba. La participación de las empresas rusas contribuye no solo el desarrollo, sino también el mantenimiento de la economía cubana en los tiempos difíciles por los que está pasando. Teniendo en cuenta que el nuevo presidente de los EEUU realiza una política imprevisible en este ámbito y los miembros de la OPEC se comprometieron a reducir la extracción de petróleo, el apoyo ruso podría ser muy importante y oportuno para la economía cubana.

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PERSPECTIVAS DE LA COOPERACIÓN ENERGÉTICA ENTRE RUSIA Y LOS PAÍSES LATINOAMERICANOS EN EL EJEMPLO DE VENEUELA Y BOLIVIA

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Abstract: *The paper is concerned with the current state of Russia's cooperation with Latin American countries in the energy sector. Attention is given to the major energy projects launched by Russia in Venezuela and Bolivia. Conclusions about the problems and prospects for cooperation are presented.*

Key words: *Russia, Latin America, energy sector, international economic relations, economic cooperation.*

Los países de América Latina se están volviendo cada vez más aficionados a Rusia, sobre todo debido al antiamericanismo que los une. En la actualidad, la política energética de muchos países latinoamericanos, así como los patrones de formación del mercado energético local, y la estrategia de muchas empresas latinoamericanas brindan bases para sacar conclusiones sobre las grandes perspectivas para el desarrollo de la asociación ruso-latinoamericana en materia de energía. Quisiera observar este tema en el ejemplo de proyectos conjuntos entre Rusia, Venezuela y Bolivia.

Rosneft participa como socio en varios proyectos de producción de petróleo en Venezuela en el marco de empresas conjuntas con la compañía estatal Petróleos de Venezuela (PDVSA): PetroVictoria, Petromonagas y Petromiranda, así como Boquerón y Petroperijá, en el estado de Zulia. Dichos proyectos generaron el pasado año 8,4 millones de toneladas de petróleo, de los cuales 2,67 millones de toneladas corresponden a Rosneft. Venezuela, mientras tanto, es la segunda fuente de crudo de Rosneft, después de Rusia. La empresa rusa revende cerca de 225.000 barriles de petróleo venezolano al día, el

equivalente a 13 por ciento de las exportaciones de Venezuela [5]. Esta maniobra es entre otras cosas una respuesta a la estrategia de bloqueo y golpe propalada por ExxonMobil contra Venezuela.

Las transacciones realizadas por Rosneft aportan a Rusia influencia económica y también influencia política, no solo en América Latina. Por ejemplo, la petrolera venezolana cedió el año pasado a Rosneft el 49,9% de acciones de la empresa Citgo. Citgo controla el 4% de todas las refinerías de petróleo en los EE.UU., Así como numerosos oleoductos y gasolineras [6].

Sin embargo, es una estrategia que también pone en riesgo a Rusia, pues presta dinero y hace acuerdos en economías turbulentas y climas políticos inestables. Los yacimientos de Venezuela se encuentran en mal estado. Y las nuevas sanciones de Estados Unidos han prohibido en gran medida las transacciones de préstamos a largo plazo con PDVSA o inversiones en otras nuevas deudas del gobierno chavista.

A principio de otoño de 2017, varios medios informaron que PDVSA estaba cerca del incumplimiento. El incumplimiento cruzado de la compañía puede afectar todas sus obligaciones internacionales, que ascienden a $ 40 mil millones, lo que probablemente conduzca a un incumplimiento de la deuda soberana de Venezuela. Teniendo en cuenta los grandes préstamos y participaciones de Rosneft en los derrames de petróleo locales, la empresa arriesga su efectivo [7]. En este momento, la situación en Venezuela tiene un impacto negativo en la percepción del mercado por acciones de Rosneft.

Rusia y Bolivia también se han centrado en la cooperación en el desarrollo del sector energético. Los buques insignia son Rosatom y Gazprom.

Los dos países firmaron en marzo de 2016 un paquete de acuerdos para impulsar el programa nuclear boliviano con la asistencia técnica de Rosatom. En septiembre de 2017, Bolivia y Rosatom firmaron un contracto para construir un centro de investigacion nuclear que va a ser el único centro de investigación en esta esfera en todo el mundo. Va a ser el más alto del mundo ya que estará ubicado a 4000 metros sobre el nivel del mar [3]. Viacheslav Lijachov, representante de Rosatom, subrayó que "le ofrecemos a Bolivia tecnologías avanzadas que le permitirán convertirse en líder regional en el ámbito de las investigaciones nucleares" [1].

El futuro centro contará con un reactor de investigación de baja potencia, un equipo de ciclotrón-radiofarmacia para la detección de cáncer además de una planta multipropósito de irradiación gama para el tratamiento de productos agrícolas para su exportación.

El presidente boliviano, Evo Morales, explicó que la construcción del Centro costará unos 300 millones de dólares y será edificado en cuatro años a partir de marzo del próximo año en 20 hectáreas del barrio Parcopata del distrito VIII de la ciudad de El Alto. Según Evo Morales "es una gran inversión en la parte científica y tecnológica, y tendremos asesoramiento ruso" [2].

El otro proyecto de colaboración ruso-boliviano muy importante el es proyecto de Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) y la compañía rusa Gazprom, suscribieron un convenio marco para la evaluación del potencial hidrocarburífero de tres áreas reservadas a favor de la estatal petrolera boliviana (áreas Vitiacua, La Ceiba y Madidi).

Gazprom ya participa en proyectos de exploración en el bloque gasífero de Aquío-Incahuasi, en Bolivia, donde produce 8 millones de metros cúbicos diarios, explotando también el pozo de Aquío 3. También, se ha firmado un memorándum sobre la fundación de una empresa mixta para la comercialización de combustible boliviano con sede fuera de Bolivia [4]. El directivo ruso precisó que se prevé comercializar gas boliviano en los mercados de Argentina y Brasil.

La firma del contrato de construcción del Centro de Investigación fortalece significativamente la presencia de Rusia en el mercado mundial de productos y tecnologías no energéticas. Lo importante aquí es la presencia de una posición política independiente de Rusia, que causa confianza en los clientes latinoamericanos. La exitosa supresión del centro nuclear hará posible que lleguen más pedidos de la región, cada uno de los cuales significa la construcción de relaciones estratégicas a largo plazo. Además, las ventajas de las empresas rusas se pueden aumentar, como en el caso de Gazprom. Bolivia ocupa el tercer lugar en Los Ángeles por las reservas de gas natural (1,5 billones de metros cúbicos), tiene un alto potencial de gas.

La cooperación energética entre Rusia y América Latina se expresa en la implementación de proyectos específicos en los sectores de petróleo, gas y electricidad, no solo en los países mencionados en el presente artículo, sino también en Argentina, Brasil, Colombia, Perú, Paraguay y Uruguay.

Existen condiciones favorables para una expansión seria de la escala de actividad de las empresas rusas en el mercado energético de América Latina. Rusia tiene el potencial científico y productivo técnico necesario para satisfacer las necesidades de América Latina.

Sin embargo, el caso de Venezuela demostró que Rusia debe ser más cuidadosa. América Latina sigue siendo una región bastante volátil, tanto política como económicamente.

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SIX DIRECTIONS IN THE DEVELOPMENT OF DIGITAL ECONOMY IN RUSSIA

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Abstract: *The article deals with different directions of the digital economy development: providing state regulation, elaborating information infrastructure, making*

different kinds of research, training personnel, implementing public administration, and developing smart cities.

Key words: *digital economy, technologies, infrastructure, smart city.*

Digital economy is a rapidly developing sphere of life, which, according to experts, is completely reforming the usual economic ties and business models. Digital economy is developing at a very rapid pace all over the world. According to financiers, in the nearest future, all participants in this sector are waiting for considerable 'digital dividends'; the decline in unemployment, lower costs in the production of goods are among them [7]. The tools offered by the digital economy are considered to meet customer needs and, moreover, to increase productivity. E-commerce seems to be able to mitigate crises through the accelerated implementation of services and products: virtual payment systems accelerate the exchange of goods and Internet advertising is more effective than the all previously known methods of the new type notification of goods and services.

The program for the development of digital economy in Russia was adopted on July 6, 2017. The main postulate of this document is the full integration of the Russian virtual economy with this sphere of the Eurasian Economic Union. The state undertakes measures to create technical and financial conditions for the speedy progress of the new financial industry. Special attention is paid to the development of computer and telecommunication equipment in Russia. Promotion of domestic software includes installation of anti-virus programs on each imported unit of the computer equipment. This global program is compared with the general electrification of the country in the early 20th century. A public project unprecedented in its impact on economic progress can be realized through the enormous intellectual potential that has been accumulated.

It should be noted that a lot of researchers, financiers and different kinds of experts are involved in the investigation of this new type of economy all over the world. They are looking for effective directions of the digital economy development. Э.Бриньолфсон, Э.Макафи, scientists from Massachusetts technological institute, consider one of the main conditions to develop digital economy is to consolidate the basic concepts and principles of regulating the digital economy and the responsibilities of the main participants of economic activities at the legislative level [3]. The scientists in our country have already made lots of exploration in this field as well. O.Y. Bestuzsheva and O.N.Vershinskaya in their article 'Some features of digital economy development' dwell on the information infrastructure; they predict a significant

increase in the number of patents for inventions in the field of information technologies in our country and, as a result, in the nearest future they consider the high-tech enterprises to be able to enter the global market [1]. It is obvious that a great deal of research and development should be done in this new sphere of economy. The key term of the new economy is the ‘digital platform’ – a high-tech business model that generates profit through the exchange between independent groups of participants. The simplest examples of such a platform have already been made, such as Uber taxi or Airbnb service [4]. By 2019, digitized workflow is expected to be placed on cloud servers. The launch of a pilot project on the analysis of ‘large data’ and decision-making in the field of municipal management is expected in 2022 [2]. Reconstruction of large Russian cities with the introduction of digital technologies for the management of energy and water resources in them is expected to start in 2018. There are plans to launch projects for automated parking space and unmanned public transport [5].

No doubt that for manipulating different digital platforms and projects, our economy needs to have educated personnel. The Prime Minister of our country stated that beginning from 2019, Russian students will be taught the basics of information technologies by specialists from the real sector of the economy and the older generation will have the opportunity of professional retraining in the IT field [6].

In conclusion, it seems to be possible to give a summary of all facts mentioned above: the digital economy development is inevitable and six directions of the digital economy development would be possible in the nearest future: providing state regulation, elaborating the information infrastructure, making different kinds of research, training personnel, implementing public administration, and developing smart cities. All these directions of digital economy development seem rather vivid and realistic.

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INVESTMENT LAW, TAXES AND INSURANCE INDUSTRY IN THE RUSSIAN FEDERATION

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Abstract*: The current state and prospects of the domestic law reform in the sphere of insurers' activity regulation from the time the commercial insurance was revived in the post-Soviet Russia until today are provoking heated discussions both among practical insurance experts and the scientific community. It should be admitted that one of the key reasons the subject attracts so much attention to is that this law segment lacks a set of theoretically grounded and practically applicable concepts and categories correlating with a number of contractual, economic, and other law fields, and consistent with modern requirements for putting the insurance market into a needed regulatory framework.*
Key words: *national economy; insurance; taxation; investments.*

The development of the insurance fund concept as a theoretical category dates back to the 19th century. One of the prominent economic scientists of that time who studied it was Karl Marx. According to a concept put forward by him, the insurance fund cannot be referred *a priory* to either the accumulation fund or the consumption fund, and whether it actually serves as the accumulation fund or just fills in reproduction gaps depends on circumstances. In a co-work of K.A. Grave and L.A. Lunts, domestic civil law experts of the 20th century who shared the ideas of the insurance fund theory, it is stated that "a complex of measures aimed at creation of material and (or) cash resources with a purpose to repair damage, recover losses incurred by the social economy as a result of natural calamities or accidents is referred to as insurance in a broad sense of the word

[3]. It is easy to notice that the provided approach, when it comes to the description of the insurance business, focuses on the process of creation of independent material resources aimed at insurance coverage of risks. The insurance fund theory was also strongly supported by the Soviet economic science. For instance, M.K. Shermenev, when giving a definition of the insurance, described it as "an economic relationship arising in connection with formation (at the expense of the assets owner) and utilization of an insurance fund created by a special organization (the insurer) to indemnify the parties to the insurance fund (the insurees) against losses caused by natural calamities and other contingencies" [6].

In the domestic economic and law sciences there still exists a school supporting the insurance fund theory. Sometimes in the literature one can come across an assertion that "the essence of the insurance is formation of a certain cash (insurance) fund…" [1]. Addressing this subject, A.A. Gvozdenko writes: "An economic category of insurance protection is embodied in the insurance fund … In the insurance fund collective and personal interests of society members are implemented, various economic and social aspects of their life activities are defined" [4].

The foregoing theory has, obviously, a significant disadvantage since its supporters focus exclusively on the insurance fund as the basic category and the very essence of the insurance, and at the same time derate the meaning of insurance goals: compensation, social and alike. Along with that, from the above views it is expressly understood that both the domestic and foreign science recognize the significance of the insurance fund as an inherent component of legal relations in the modern insurance business. However, as was mentioned above, the notion of the insurance fund is not employed in its original meaning in the current domestic legislation.

The current understanding of the insurance fund by the civil lawyer community is not unanimous. According to I.T. Balabanov and A.I. Balabanov, the insurance fund of the insurer is a reserve of cash or real assets formed by contributions of insurees and subject to operational and organizational management of the insurer [2]. N.G. Kabantseva defines the insurance fund as a special form of the cash and real assets reserve intended for coverage of contingent damage inflicted on society by natural calamities, technogenic catastrophes and various accidents. M.B. Smirnova points out that the insurance fund is a term to define its two meanings: for the first thing, it is a complex of natural resources and financial reserves of society intended for prevention,

localization and indemnification of damage inflicted by acts of elements or other contingencies; in the second thing, it means aggregated financial reserves created by way of insurance, formed by fixed premium collections and used only for payment of indemnities and insured sums, it also includes a system of backup and reserve funds [8]. All the foregoing definitions as well as a number of other insurance fund descriptions studied by the author, undoubtedly, - to this or that extent - reflect the meaning of this concept, but, in the author's opinion, they do not seem complete. Viewed from this point, after having identified the basic features of the insurance fund, we are going to discuss its sources and applications in more detail so as to gain a better insight into this phenomenon.

The main source of the insurance fund establishment is contributions in cash made by third parties in pursuance of obligations under insurance contracts. But along with this, the insurance fund may be replenished through the authorized capital of the insurance company comprised of contributions of its members (shareholders), profits derived from the investment activity of the insurer, other profits from the insurer's operations permitted by the law [5].

In the economic, scientific literature investigations on such issues as the economic nature of the insurance fund, the extent of its participation in the financial mechanism and the structure of financial relations determining the internal content of this category do not have a single point of view. In the author's opinion, to clarify the purposes of the insurance fund spending, it would be correct to view it as a complex of assets employed in the insurance company finances. The latter, according to M.G. Zhigas, are a combination of economic monetary relations arising in the process of: first, overtaking risks from economic agents (risk transfer), which results in a cash inflow in the form of insurance premiums filling thereby the insurance fund; second, risk retention including accumulation of reserves adequate to the risk to ensure timely and complete performance of liabilities incurred; third, indemnification of losses (damage compensation); and fourth, operations of the insurer [9].

The insurance reserves of the insurer are actually the basic element in the finance system of an insurance company that determines the essence of insurance [7]. The insurer's own assets determine an amount of property of an insurance company that was contributed by the company members or earned by the company but not distributed among it members. Meanwhile, the insurance fund serves as a filling for the insurance reserves and the insurer's own assets and at the same time makes possible the whole complex of operations performed by the insurer in the insurance framework.

Therefore, the author understands the insurance fund as a complex of assets having a special legal regime and owned by the insurer; the fund is formed by insurance premiums (contributions) paid to the insurer, contributions made by members (shareholders) of the insurer, the insurer's investment activities, other insurer's earnings, and used for insurance operations.

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THE BASICS OF RUSSIAN DIGITAL ECONOMY: LEGAL REGULATION

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Abstract: *The author considers some main aspects of economy and legislation interaction based on the usage of modern digital technologies. The author tries to prove the necessity of development modern legislation taking into account current situation in the area of country economy, that is the influence of digitalization on society as a whole.*

Key words: legislation, economy, digitalization, legal regulation.

The world is on the cusp of a new digital era. With dramatically reduced costs of collecting, storing and processing data, and greatly enhanced computing power, digitalization is transforming economic activities around the world. It is

expected to affect value chains, skill requirements, production and trade, and will require adaptations of existing legal and regulatory frameworks in various areas.

Digitization is the conversion of an analogue signal conveying information (e.g. sound, image, printed text) to binary bits. Although still costly to digitize or collect, information can be represented in a universal manner, and it can be stored as data. Digital data can be used – processed, stored, filtered, tracked, identified, duplicated and transmitted – infinitely by digital devices without degradation, at very high speeds and at negligible marginal cost. The Internet has led to growing interconnections that allow this to occur globally. In contrast, processing and disseminating analogue information is slow and the variety of formats (e.g. paper, film reel, magnetic tapes, etc.) severely limits links, combinations and replication. In short, digitization reduces physical constraints to information sharing and exploitation [2].

Digital economy is a system of economic relations, where the data in digital form becomes the main factor of production. The world economy is increasingly affected by digital technologies, with potentially profound disruptions to industrial organization, skills development, production and trade, and will thus require appropriate regulatory frameworks.

Nowadays there are many questions in Russia which arise in the framework of using information and telecommunication technologies that are to be regulated by legal rules. However there are some disadvantages regarding law area. Some legal rules create barriers to the development of digital economy institutions. So it’s necessary to consider the basics of the digital economy legal regulation in Russia by analyzing the government program «Digital economy of Russian Federation».

To start it’s important to explain the necessity of signing the program. Social and economic conditions of Russian Federation, Russia's position within the global digital market influenced on the government`s decision to make this program. First of all there were determined three levels of digital economy: markets and industries; platforms and technologies; the environment creating conditions for development two before mentioned levels. All five basic directions should be significantly developed, but the most important among them is legal regulation. Government prepared the «Road map» with the aim of managing the digital economy development. This map defines the purposes of each direction, the methods of solving problems and periods of each direction implementation.

So it is stipulated that each direction should be legally regulated that requires some new regulatory environment providing a favorable legal mode for formation and development of modern technologies. It is necessary to take into account the time of some projects realization. In this case the starting and development stages of legal environment for digital economy should be written in details. Nowadays some government departments have already had the results of this activity that are competent enough for following legal environment in development.

Increased digitalization and automation is leading to new types of jobs and employment, changing the nature and conditions of work and altering skills requirements, as well as affecting the functioning of labour markets and the international division of labour. The ability of countries and enterprises to exploit new digital resources will become a key determinant of competitiveness. The overall effects of digitalization remain uncertain; they will be context-specific, differing greatly among countries and sectors. This makes it increasingly important for countries to ensure they have an adequate supply of skilled workers with strong cognitive, adaptive and creative skills necessary for "working with the machines" [1].

According to the today's situation it's necessary to mention the current state and prospects for improving the legal regulation of public administration in the sphere of stimulating the development of information technologies, including formation of a digital economy in the Russian Federation. Based on the analysis of the Russian legislation, key elements of the legal mechanism of public administration in the sphere of stimulating the development and introduction of technologies in various fields that can be used to stimulate the development of information technologies are identified. The analysis of the documents of strategic planning and information legislation made it possible to substantiate a number of proposals for improving the legal regulation in the sphere under consideration, including legislative provisions for stimulating IT development, identifying and eliminating legal and organizational barriers to their development, and measures to stimulate it [4].

To sum up, it should be specified that proper legal environment is the necessary condition for development digital economy. The success of Russian`s digital economy depends of this factor.

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OBSTACLES TO THE INTRODUCTION OF DIGITAL ECHNOLOGIES FOR INDIVIDUAL TAXPAYERS

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Abstract*: The article deals with some aspects concerning obstacles to the introduction of digital technologies for individual taxpayers. Taxes are significantly important for governments as they help to create the financial base for a country so the system of taxation is also under the digital economy influence. The author states that establishing new tools for taxpayers, governments develop them by researching related problems and a "personal account of the taxpayer" is not an exception.*

Key words*: individual taxpayers; personal account of the taxpayer for an individual; taxation.*

We often hear the phrase «digital economy». What does really lie behind these words? Nicholas Negroponte, an American computer scientist, first used the term in 1995. However, there is still no clear definition of this concept. Generally, the digital economy covers anything that can be transformed into logical schemes, and taxation of individuals is not an exception [5].

Moreover, taxes are a crucial factor in the creation of the state financial base. Taxation plays an integral role in the market economy regulation. Now there is an active process of modernization in the Russian tax system, so the taxation of individuals has also undergone some changes [4].

Since the beginning of 2014, individuals have the opportunity to register in the service «personal account of the taxpayer for an individual». This Internet service allows the taxpayer to receive information about property, the amount of accrued and paid tax payments, the debt to the budget or the presence of overpayments. The service also lets pay tax debts and make tax payments through partner banks of the Federal Tax Service (FTS) of Russia, as well as many other things.

On the one hand, this tool is a significant breakthrough in the field of taxation and the usage of information technology. However, what can be an obstacle to the development of the digital economy for individual taxpayers?

First of all, the Russian Federation has the biggest territory in the world and advanced information technologies have not reached all its remote corners yet (e.g. some small indigenous people, who live in the Far North of Russia, still do not use any computers or mobile phones).

Secondly, you must have an access to the Internet in order to use the service. Despite the fact that information technology is rapidly breaking into our lives, there are some families that can not afford to have electronic devices at home or even the Internet, and not every region of Russia has such opportunity.

Thirdly, the vast majority of pensioners do not have the slightest idea of how to use the computer and work online.

Fourthly, making tax payments through your account, you can select an available bank, but if you do not find the right one in the list, you can use the service «Yandex.Taxes» [2]. If individuals usually withdraw money from cards, they will have to abandon this habit to be able to pay taxes.

Finally, since 2016 the distribution of tax notices has taken place in electronic form for taxpayers who have a registered personal account on the FTS website, so these individuals no longer receive tax notices in their mailbox. An individual, probably, may not know that fact, and forgets to make payments, which will also entail the application of sanctions by the tax authority [3].

It is clear that surfing the Internet, we can encounter the reviews and complaints of some taxpayers about the work of the service:

1. Some users claim that the site sometimes is poorly loaded;

2. Many people complain that the debts in the account appear after the deadline for tax payments;

3. Not the whole range of services of the FTS is available in the account (e.g. if you need to prove your preferences, you have to go to the tax office with documents personally).

To sum up, like any other field of people's activity, taxation of individuals also faces a number of problems in its process of transformation: taxpayers may encounter a lack of an access to the Internet, and people must be ready to study the tax legislation and fees including the terms of tax payments.

All these troubles arising in the process of digital economy development can be overcome, but it is not easy. Therefore, the Russian FTS continues to improve its services to enable taxpayers to pay taxes on time and fully.

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ANÁLISIS DEL MODELO DE LA "CIUDAD INTELIGENTE" EN LOS PAÍSES DE AMÉRICA LATINA

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Abstract: *This article is devoted to development issues of smart cities in Latin America. It provides relevant information on government projects and growth performance of smart cities. In conclusion, the authors suggest an appropriate model which can be applied specifically to the region.*

Key words: *Latin America; smart city; digital technologies; urbanization.*

El crecimiento global del número de habitantes en la Tierra es un problema grave, del cual hay señales alarmantes en la distribución de alimentos,

el consumo de electricidad, el abastecimiento de agua y la contaminación ambiental [4]. Por esta razón, están surgiendo las "smart cities" o "ciudades inteligentes" que deben buscar como objetivo final mejorar la calidad de vida de sus ciudadanos, siendo cada vez más eficaces y brindando nuevos servicios de calidad, mientras que se respetan al máximo los aspectos ambientales.

Esto es especialmente importante para América Latina como el área en desarrollo con mayor tasa de urbanización del planeta, donde se espera que en 2050 el 90% de la población habite en las megaciudades – áreas metropolitanas de más de 10 millones de personas. De cómo se desarrollen las ciudades inteligentes en esta región dependerá la evolución de la innovación, concentración de la mano de obra especializada, el desarrollo de economías dinámicas y la prestación de servicios de educación, cultura y ocio.

En realidad, ciudades inteligentes surgieron en América Latina relativamente hace poco. En México esa idea nació en julio de 2014, cuando el gobierno estatal consideró Ciudad Maderas la primera ciudad inteligente de México [2]. Además, hay un proyecto "Smart City Gran Concepción", que comenzó en enero de 2014 y sirvió de piloto para un modelo de Smart City en Chile. La transformacion de ciudades brasileñas se inició también en 2014, junto con el Campeonato Mundial de Fútbol.

Es muy importante evaluar el estado de una ciudad a la hora de proponer, diseñar e implementar políticas, planes, programas y proyectos que busquen convertir una ciudad en Ciudad Inteligente. Pero ¿cómo se puede medir la inteligencia de la ciudad? Nos encanta la idea de utilizar el índice "Cities in Motion" (Ciudades en Movimiento) propuesto por IESE Business School. El estudio analiza 180 ciudades en 80 países, con base en 79 indicadores que cubren 10 dimensiones de la vida urbana. Los datos se obtienen de organismos y dependencias como la UNESCO, el Banco Mundial y Euromonitor [1].

Según el último ranking, cinco ciudades latinoamericanas se encuentran entre las primeras 100 ciudades inteligentes del mundo (Buenos Aires, Santiago de Chile, Ciudad de México, Medellín y Montevideo respectivamente), pero la mayoría de las ciudades de la región se sitúa en posiciones superiores [3]. Así por ejemplo, Buenos Aires implementó una extensa red pública de Wi-Fi. Santiago cuenta con más de 2 000 bicicletas públicas. Algunos edificios en Ciudad de México usan tecnología que absorbe la contaminación. Medellín es reconocida por su transformación milagrosa, dejando atrás el estigma de la narcoviolencia y es un centro de atracción para la inversión extranjera y para el

turismo. En cualquier caso, todas estas ciudades están evolucionando rápidamente y están volviéndose más inteligentes cada día.

Para concluir, ¿qué futuro espera a las ciudades inteligentes? Mejorar la calidad de vida de los ciudadanos, por un lado, y la calidad ambiental, por otro, seguirán siendo los principales objetivos en todas las etapas del desarrollo. Los gobiernos del mundo tienen diversos fines y planes. Tienen que poner especial interés en objetos internos (los edificios y aeropuertos) o externos de una ciudad (la contaminación y economía). Al mismo tiempo, los países han ampliado gradualmente el número de ciudades inteligentes aparte de las capitales.

Nuestro estudio muestra que las "smart cities" es una buena solución de los numerosos problemas socioeconómicos en América Latina. Además sirve para poner de manifiesto las ventajas de las ciudades inteligentes para los países latinoamericanos y analizar su modelo del desarrollo común que se basa en la digitalización, la difusión de tecnología y el crecimiento convergente.

En otras palabras, el mundo está urbanizándose más rápidamente que nunca y, al mismo tiempo, las tecnologías digitales nos ayudan a encontrar soluciones cada vez más creativas: gestionar la basura y el tráfico y mucho más. Muchos países de América Latina están en vías de desarrollo y retroceden en implementar las tecnologías, pero aprovechando los modelos de las ciudades inteligentes de otras partes del mundo están creando su modelo único.

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RUSSIAN LITERATURE AS A WAY OF INTERACTION OF CULTURES

Derevyanko B.A., Chistilin A.M., Varekhina D.S.
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Abstract: *The article examines the impact of Russian literature on foreign writers and readers. Special attention is paid to the role that the greatest Russian writes Tolstoy, Pushkin and Gogol had in the development of foreign literature as a whole and European in particular.*

Key words: *Russian literature; culture; writers; influence.*

Russian literature is well known all over the world. Such names as Pushkin, Tolstoy, Bulgakov and many other Russian writers are our national pride. They had a huge impact on the cultures of other countries. Genuine Russian literature differs in absolute originality, uniqueness, folklore. The Russian literature of the past was never nationally closed. The best Russian writers had highly developed feeling of the homeland and they opened for themselves the richest historical and spiritual experience accumulated by literature of different times and people. The whole world of art gave them material for creative reflections. However, there is an opinion that foreigners consider our literature gloomy and even a little depressive. This may be linked to the fact that our authors touch deep and eternal problems that heroes face [2]. They try to survive some of the highlights based on Russian mentality which can be confusing for other countries.

Let's turn to history. Foreign readers opened for themselves Russian literature in 1879 when the first French translation of “War and Peace” by Leo Tolstoy was published. This masterpiece combines both romance and phycology, drama and action. And since its first publication it has still been attracting more and more new readers from all over the world. This work of art does not lose its relevance in the modern world. The novel has been adopted into films and series several times, not only in Russia but in Britain and France with the latest TV series produced by BBC in 2016.There is no mystery of its popularity with new generations of viewers: "War and peace" is a novel in which life wins death, and the world wins the war. Tolstoy’s epic forced foreign readers to look at works of other Russian writers closer.

Among the Russian writers well-known to foreign readers is another great writer - Alexander S. Pushkin, the founder of Russian realism. His novel in verse "Eugene Onegin", which Belinsky called the encyclopedia of Russian life, was the highest expression of realism in the works of the great poet. Global

significance of Pushkin stems from the universal significance of traditions which he created.

The works of Nokilay V Gogol are great examples of critical realism where the author depicted a ‘little man’ with his difficulties, problems, goals and aspirations. No doubt that Russian literature is so popular with foreign readers because it is full of ideas, critical view on life, and believes is the future. This fact helped Russian literature win hearts of readers in many countries all over the world.

Another incredible fact is that Russian literature has had a great impact on the development of the Western European Literature of the 19-20th century [3]. That historical period is characterized by the decline of revolutionary movements, the development of the capitalist world. Many foreign writers became puzzled, they lost faith in the individual, in justice and the good. That is why they turned to Russian literature for a refreshing source of light and positivism.

It should be noted that even foreign scientists are interested in Russian literature because its role in spiritual life of mankind is constantly increasing. Hundreds of literary scholars-Slavists from different countries study the history of Russian classical literature, collect archives of Russian writers to preserve their works and ideas for future generations [1].

Russian literature has always been well-known and appreciated all over the world. It is loved for its thoughts, ideas, reflections and beliefs. Many famous people say that Russian literature has had great influence on them. For example, a young but already famous British actor Daniel Radcliffe, known for his role in the famous franchise "Harry Potter", has repeatedly stated that his favorite writer is Mikhail Bulgakov, and the novel "Master and Margarita".

In reality, Russia has all the rights to be proud of its writers and poets. Russian literature has its unique folklore and attitude to life that make it even more interesting and attractive for readers from foreign countries. Its eternal subjects will always concern people at all times.

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THE MAIN PROBLEM OF PREPARING QUALIFIED PERSONNEL FOR THE DIGITAL ECONOMY

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Abstract: *The article describes some aspects of the possible problems concerned with preparing qualified personnel for the digital economy. It will be considered through explaining the difference between old and new educational approaches.*

Key words: *education; educational approach; digital economy; skills.*

Training of the qualified personnel is a necessary condition for the development of the digital economy, therefore the tasks of the Digital Economy of the Russian Federation program put the emphasis on increasing the digital literacy of the population and increasing the proportion of graduates in the IT specialization. These goals are supposed to be achieved through completing the following tasks [3]:

- Develop and test competency models which ensure effective interaction between society, business, labor market and education in digital economy;
- Create a format of individual profiles of citizens' competencies and trajectories of their development, determine the rules for access to this information by individuals and legal entities.

However, the preparation of students in the basic and professional digital competencies seems to be impossible without changing the approach to teaching and skills.

Nowadays in the Russian schools and universities, students are taught according to the programs for a certain period, where the hours and competencies of the future professionals are established. They do not take into account that at best some competencies may become obsolete.

Also the role of teacher has been lessened in recent years as teachers have to do a lot of useless paperwork to stay accountable. This is one of the main obstacles according to the results of the poll by VTsIOM which shows that low salaries (29%), great workload and a lot of reports (12%) and poor personal attitude to work (11%) hinder properly teaching [2].

What is more important is the old management approach to skill-building of a person. This approach divides skills into ‘hard’ (specific context of using)

and ‘soft’ (not limited to context for application). Such division ignores some basics about individual like personal behavior and way of thinking [1].

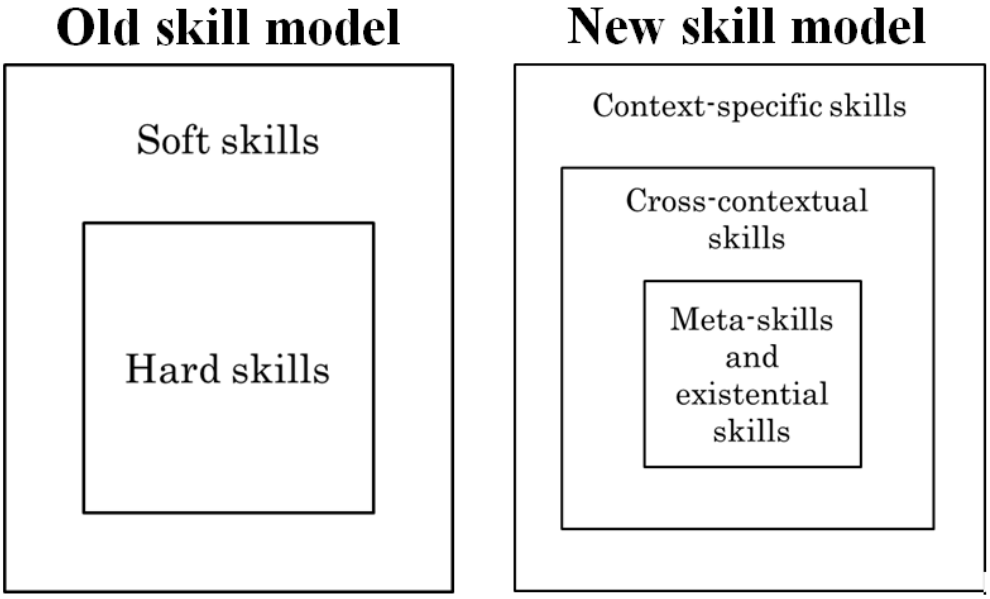

Figure 1. Old and new skill models

In order to prepare a student for the modern labor market, it is necessary to switch on to a new skill model consisting of [1]:

- Context-specific skills (including, but not limited to, hard skills) are skills that are developed and applied in a specific context;
- Cross-contextual skills are those that can be applied in a larger domain of social or personal activities;
- Meta-skills are primarily different modes of operating objects in our mind or in the physical world ranging from logical-mathematical to bodily-kinesthetic and interpersonal;
- Existential skills that can be universally applied throughout the lifetime and in different living contexts of an individual.

Moreover, there should be more autonomy for students, so they learn how to work individually and collectively in the digital or real life.

The main point of the new approach is to develop skills during the lifetime, because even the diploma cannot guarantee that the acquired skills will be needed as the labor market is changing rapidly. That is why people should also learn new skills not for 4-6 years but for 4-6 months or even weeks.

If the educational approach is changed, our country will succeed in educating qualified personnel for the digital economy.

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LA VITESSE - NOUVELLE MONNAIE DU BUSINESS

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***Résumé**: Ces dernières années, on met l'accent sur les problèmes globaux de l'humanité, comme le réchauffement climatique, la pollution de l'environnement et d' autres. Dans cet article l'auteur tâche d'analyser les innovations d'importance mondiale dont l'objectif est de résoudre les problèmes actuels de l'humanité.*

***Mots-clés**: progrès technologique, innovation, développement, économie, problèmes globaux.*

Depuis les années 50 du dernier siècle, le progrès technologique commence à déterminer le niveau scientifique et technique, la stratégie et la dynamique du développement, de la compétitivité des entreprises nationales et transnationales. La plupart des savants sont convaincus que l'innovation est le principal moteur du développement économique et social.

L'innovation a conduit la communauté internationale à un niveau plus élevé du développement. Il existe de nombreux points de vue sur la définition du terme «innovation». Certains pensent que l'innovation est présentée sous la forme d'un nouveau produit, d'autres que c'est toute une nouvelle technologie applicable dans la vie réelle.

En général l'innovation désigne le fait d'introduire quelque nouveauté dans le gouvernement, les moeurs, une science, ou un autre domaine ... [1].

- **Voitures avec des émissions non toxiques.** Les véhicules sont la plus grande source d'émissions nocives. Leur prévalence dans le monde et leur forte dépendance aux combustibles fossiles constituent une combinaison mortelle.

Les inventeurs comme Ylon Musk sont en tête dans ce domaine, et *la Tesla Model S* est une voiture qui fonctionne sans émissions de gaz d'échappement. Aujourd'hui peu de gens peuvent malheureusement se permettre Tesla. De ce point de vue il est encourageant que d'autres constructeurs

d'automobiles chez Toyota et Honda mettent l'accent sur un aspect écologique des modèles plus accessibles pour les consommateurs [3].

➢ **Falcon 9.** Le Falcon 9 est un lanceur moyen développé par la société SpaceX dont la dernière version peut placer une charge utile de 22,8 tonnes en orbite basse ou de 8,3 tonnes en orbite de transfert géostationnaire. L'objectif de SpaceX est de fournir un lanceur permettant de baisser sensiblement le prix des lancements sur une orbite grâce à des coûts de fabrication modérés et la récupération des étages.

Comment tout se passe. Quelques minutes après le lancement, la partie inférieure de Falcon 9 se détache en vol et atterrit sur un lieu spécial. La partie supérieure continue à voler et atteint l'orbite.

En raison du fait que la partie inférieure est retournée en toute sécurité sur la Terre, sa réutilisation devient possible. Ainsi, le transport spatial futur sera moins cher [2].

Cela suggère que la dégradation de l'environnement, causée des éléments de la construction des parties détachables des fusées porteuses, est complètement éliminée.

➢ **L'agriculture verticale.** À mesure que la population augmente et que l'espace diminue, de nouvelles méthodes d'élevage sont nécessaires. Les fermes verticales qui impliquent des «mouvements ascendants» offrent plus de perspectives dans ce domaine.

Vertical Harvest Farm à Jackson, est une serre hydroponique à trois étages qui peut produire annuellement 16 tonnes de légumes, 2 tonnes de légumes verts et 19 tonnes de tomates. Il vaut la peine de comparer ce niveau de production avec les fermes ordinaires, qui exigent une centaine d'acres pour produire une culture similaire [4].

En conclusion il est important de noter que les innovations changent notre monde actuel. Ce sont des technologies très importantes et nécessaires pour aujourd'hui, sans lesquelles l'humanité est condamnée à périr. Il faut élaborer plutôt les véhicules, les avions ou les bateaux qui fonctionneraient à la base du combustible sûr et écologique. Le plus gros problème sera le coût de production, dont le résultat est de produire des modèles abordables pour les pays en développement.

Je crois que chacun devrait investir dans l'éducation et accorder une attention particulière aux spécialités liées aux technologies des informations et aux innovations.

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ASYMMETRY OF INFORMATION IN THE FORMATION OF DIGITAL ECONOMY: PROBLEMS AND SOLUTIONS

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Abstract: *The article provides advantages and disadvantages of the digital economy. It considers the influence of information asymmetry in the markets under the conditions of the digital economy development. Measures to reduce asymmetry of information are presented in the article.*

Key words: *digital economy, information asymmetry, market development.*

Digital economy is a system of relations in which digital technologies are actively used. No doubt that it is a step forward in the economic development of any country but still digital economy has both positive and negative features. So, among the advantages of this type of economy the following can be identified: (1) it is the basis for discovery of the new sources of income; (2) it has a low price level because of immediacy of supply; (3) there is availability of goods and services, that is you can order goods even from another country; (4) there is a wide range of goods and services which gives the consumer a choice. However, it should be noted that there are also disadvantages, such as (1) complexity of the choice of goods (among various goods you can find similar products, and as a result it entails the problem of choice); (2) a wide range of

goods and services does not guarantee their quality; (3) quality of purchased goods can often be learned only after purchase. All above mentioned shortcomings point to the problem of the asymmetry of information.

As the investigation shows, there is no unified approach to determining the asymmetry of information; it has not been fully developed yet. The term ‘asymmetric information’ was first used in the theory of uncertainty and risk in the works of W. Vickrey, and began to be used and spread in economics in the 70s thanks to the works of George Akerlof, Michael Spence and Joseph Stiglitz et al. [3]. Nowadays, the most common interpretations of information asymmetry are, first, incomplete, unevenly distributed, poor-quality information; second, uneven distribution of information about the goods between the parties of a transaction. Despite the wide prevalence of the term ‘information’, its content is controversial. It should be underlined that in the framework of this article, information is understood as data, knowledge that can be stored, transmitted and transformed.

It must be confessed that violation of information flows, their unreliability and other problems of this kind can negatively affect the process of making managerial decisions. The essence of information asymmetry lies in the fact that market participants and even different levels of one organization have different volume and access to information. In this case, the one, who has in stock a lot of information channels and different processing capabilities, can monitor both the market situation and provoke certain dysfunctions (for example, speculation).

As it has become clear, in financial markets a very important role is given to different kinds of information; besides, the access to information must be available and reliable because the decision in a certain part of cases should be made in the minimum period of time. Y.G. Gureeva provides some points which prevents the rapid analysis of information: (1) information in some cases is unreliable, and verification requires additional resources; (2) the information possesses the urgency property, that is the information, acquired today, tomorrow may lose relevance and cannot be used in the future to make a decision; (3) not all economic entities have sufficient knowledge for careful selection, systematization, analysis of information, as well as competent assessment of the importance of incoming information [1, c.21].

Obviously, a number of measures of reducing asymmetry of information should be taken. Sh.I. Yenikeev and A.V. Dida in their article highlighted some ways to reduce the asymmetry of information [2]. First of all, they tell about the reputation of the producers. Because of the problem of unfavorable selection,

producers should be able to interest consumers precisely with their products, so that they are not expelled from the market. To do this, manufacturers must provide all the necessary information to consumers, only in such a way they can earn a reputation in the society as reliable and honest producers. Then the authors of the article pay attention to standardization. In case where the organization is unable to create a reputation, another option would be the development of standards. Thus, the consumer, coming into the organization or using its products, already knows what he will get. One more point which is observed in the article concerning the reduction of information asymmetry is a market signal that is the manufacturer gives the certificates, diplomas or something similar for a gain of the consumer attention. Moreover, the researchers consider guarantees and obligations to be one of the ways of reducing information asymmetry because it is a sign of good quality of the goods, as they speak about the manufacturer's willingness to take responsibility for the quality of the goods.

To summarize the all above mentioned facts, it is possible to make a conclusion. Though digital economy is a step forward in economic development, it possesses not only advantages but disadvantages as well. As a result of disadvantages there is a problem of information asymmetry which may be reduced by means of the producer’s reputation, products standardization, different market signals and manufacturer’s guarantees and obligations.

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RUSSIAN APPROACH TO THE MONETARY SYSTEM

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Abstract: *The article describes some controversial aspects of the current monetary system theory and compares it with a new Russian one. There are weak points of the current theory identified, the advantages commented and the vantage of the Russian one revealed.*
Key words: monetary system, money, central bank, refinancing, inflation.

Money and monetary system have a significant impact on our life. The aim of this research is to find out whether the problems in the sphere of money circulation arise due to inadequate current monetary theory or due to inappropriate policy of central banks (CBs). To answer the question, there were investigated and compared the current dominated Western theory and its fresh Russian alternative.

Today's global monetary system is essentially a fiat system with fiat money, which is defined as a legal tender to buy goods and which is backed by the CB assets [2]. A few researches about a new vision of the essence of money and monetary system have been published recently. In proceedings by professor U.A. Kropin, for instance, the current theory is criticized and a new alternative one is proposed instead.

The most significant differences between the above mentioned theories are aggregated in Table 1.[2; 3]

Key Concepts	**Western school of economics**	**Russian school of economics**
National currency	Representation of the central bank’s assets	Representation of market content
The cause of money increase	Increase of the central bank’s assets or through the mechanism of bank multiple	Gross national income
Issuing new cash	Refinancing commercial banks with the refinancing rate or exchange the foreign currency profits of the country’s exporters	Exchanging the part of the GNI to keep the balance between cash and non-cash
Inflation	Sustained increase in the general price level of goods and services in an economy over a period	Violation of the relationship between the money in circulation and what it represents

Table 1. Differences in the monetary system's theories

The foundation of the monetary system is definitely money. Thus, the understanding of the concept "money" should be clear. However, current notion arises more questions than answers: one of the Russian CB's assets is foreign currencies reserves, then if the value of the foreign currency changes, the Russian currency should change correspondingly. At the same time, the western scientists insist that the law of supply and demand is a mechanism of the exchange rate setting. So, the assets of the CB can increase when the value of national currency drops. It is an obvious contradiction, inducing such questions as whether the today's level of CBs impact on the economy is appropriate and why the economy should be dependent on dubious actions of its national and foreign CBs.

All types of CB's assets are limited while markets grow continuously and need more money. The former monetary system – gold standard – failed, having not met the market needs. The current system simply expanded the types of assets but did not solve the problems of the former stage, that will evoke another great change.

Another weak point is presented by the bank multiple. U.A. Kropin claims that the process of lending deposited money by commercial banks does not increase the money in circulation. In fact, it is only a distribution of one sum, returned to the depositor with premium. However, where does this interest arise?

Refinancing, that is lending money to the commercial banks, should be regarded as one more relevant problem. In fact, CBs will receive more money than they issue but the CB's assets remain the same, that conflicts with the money content [5].

The final problem seems to be the understanding of inflation. Nowadays monetary policy focuses on an inflation rate target [1]. CBs must understand the essence of the inflation clear. Today inflation is equal to the sustained increase in the general price level. The first difficulty is how to measure this increase if prices can differ from shop to shop and there are so many goods. The second difficulty is the nature of inflation: the reason for the prices rising is the surplus of the money in circulation (it means that quantity of money is bigger than quantity of goods, which can be bought). Therefore, we can see that money should not exist without market content, but according to the theory, they can appear due to the increase of CB's assets. Now we should again refer to the money essence.

Nowadays central banks, continuing the national currency issue under its assets, provoke contradictions in the different aspects of the monetary policy, that complicates appropriate supportive measure taking.

So as money is needed to make trade-offs, the Russian theory proposes the idea that its essence corresponds the market content [4]. This vision solves the problem of limited assets, as the money increases through the Gross National Income in the form of non-cash. This approach explains the reason for interests from lending: the borrowed money is used to make profits of the organizations, so interests is a part of GNI.

As the money appears in the form of non-cash, there is no shortage of it. But economic entities need cash, so CBs are to produce it. Not to introduce the unsupported money into circulation, the CB should exchange the non-cash. Therefore, this theory not only discloses the nature of inflation but also shows how to avoid it.

The Russian theory highlights central banks should not be the issuers of the national currency. Their main aim is maintaining the balance between the cash and non-cash to prevent the inflation.

Though the Russian theory looks very consistent, it has some weak points: How to calculate the market content and the Gross National Income? It is yet unclear how new non-cash appeared in the monetary system? How should the currency exchange rate be formed?

The current vision of the money and monetary system is already obsolete and may be the main reason for the inefficient monetary policy that prevents the stable economic growth, so if the new Russian theory is developed, it can become a strong opponent to the current western one.

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SMALL TALK IN DIFFERENT CULTURES

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***Abstract**: The article highlights some crucial aspects of one of the controversial issues in establishing international relations – small talk and the way it is interpreted in different cultures.*

***Key words**: small talk; peach cultures; coconut cultures; intercultural communication.*

The perception of the concept "small talk" is different in various cultures. For many Russians who are not used to small talk, it is an informal conversation about matters that are not important, meaningless chitchat, chatter, wasting precious time [1]. However, the absence of small talk for other nations, for example, Americans, makes them feel very uncomfortable. To avoid misunderstanding when conversing with representatives of other cultures it is absolutely necessary to be aware how important this notion is for intercultural communication.

In fact, the purpose of small talk is to build relationships, it is not time for arguing or disagreement, it is an attempt "to break the ice", fill silence and make things less uncomfortable. Small talk is a good communication skill and people who realize and master the art of small talk understand that to small talk is not an opportune time to talk business, with small talk you are advancing the conversation in an extremely restrained way. It is a valuable opportunity to enhance relationships and build rapport. How you approach small talk is an immediate indicator of your cultural knowledge. The first few sentences you exchange may set the tone for the rest of your conversation or meeting [4].

Across cultures people build professional relationships in different ways, with the art of small talk being extremely important in building trust and connection with different people. Professionals in the modern business community argue cultures can be classified along the "Peach-Coconut" continuum. The USA and Japan are good examples of "peach" cultures, they are "soft" on the outside, very friendly to people they meet. They smile at strangers, share information, and are very nice and helpful. However, once you get past the initial friendliness, you see their real private self is protected by a hard shell of the pit. You often hear complaints that they are nice only on the outside, it is impossible to become real friends with an American or Japanese [2].

On the other hand, Russia and Germany are good examples of "coconut" cultures. They are "hard" on the outside. They rarely smile at strangers, do not easily engage in conversations, and may look unfriendly or even aggressive first. However, if you manage to break through their hard outer shell, they tend to become close loyal friends who will accept you as family [2].

Russians and Germans may think that the Japanese and Americans are shallow, have a fake smile, manipulative and egoistic while Americans and Japanese might believe that Russians and Germans are rude, aggressive, humorless, cold, angry and nepotistic. In reality, one is just soft outside and hard inside like a peach, and the other is hard on the outside and soft on the inside like a coconut [2].

Small talk is perfunctory in many of the cultures. The topics of small talk conversations are generally less important than their social function [4]. Asking a series of questions about one's health, family, work, and so on is ritual, as are the practically scripted responses that would indicate that everything is just fine. Weather is a common topic in regions where the climate has great variation. In China and Japan small talk between new acquaintances may feature questions that enable social categorization of each other. In general, the topic usually depends on the relationship established before, and the circumstances of the conversation [3].

To summarise, to live together and build business relations people with different ethnic, cultural and linguistic backgrounds should acquire communicative and intercultural competences, with special emphasis being put to the skill of using small talk.

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LA COMPÉTITIVITÈ DE L'ENTREPRISE SUR LE MARCHÉ DE L'ÉLECTRONIQUE PORTABLE. LES AVANTAGES ET LES INCOVÉNIENTS DES STRATÉGIES DES LEADERS DU DOMAINE

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Résumé: *L'article décrit des aspects de l'électronique portable ainsi que les stratégies des leaders ce segment du marché. L'auteur tâche d'analyser les avantages et les incovénients des stratégies, surtout le marketing.*

Mots clés: *électronique portable; stratégies; entreprise.*

Aujourd'hui, il y a beaucoup d'entreprises qui produisent l'électronique portable, l'un des plus rapides domaines en développement. Les entreprises Apple, Xiaomi, FitBit sont les leaders dans ce segment.

Apple a pris le leadership sur le marché dans le premier trimestre de 2017. Les analystes estiment que cela est dû au fait que les gens choisissent aujourd'hui les montres intelligentes au lieu des trucs sportifs [2].

Il est à noter que le développement de « Apple » est bien effectué grâce à la stratégie marketing. Cette entreprise est jeune sur ce marché, dont le label et la marque sont reconnus et appréciés dans le monde. De surcroît elle a une énorme «armée» des adeptes qui stimulent la commercialisation de ses gadgets. Apple a investi beaucoup dans la publicité en ligne sur les plus grands sites de l'Internet, la télévision et des affiches publicitaires.

Il faut dire que cette stratégie dans le monde d'aujourd'hui est très compétitive. De nos jours, l'utilisateur ne réfléchit pas beaucoup sur les solutions techniques, puisque l'émergence d'une nouvelle technologie est une question de temps pour les différentes entreprises qui les produisent à la base des top gadgets similaires. Mais cette stratégie n'est pas idéale. Son principal risque est le manque d'innovation à un prix assez élevé qui justifie sa marque.

La stratégie de l'entreprise « Xiaomi » est tout à fait différente. C'est une entreprise chinoise bien développée qui malgré l'absence de marchés européens et américains occupe la deuxième place dans le monde. Elle est presque prête à entrer sur le marché mondial.

Comment est-ce que « Xiaomi » a atteint ce résultat ? ? La réponse se cache dans sa stratégie. Ses appareils restent compétitifs en raison de ses prix modérés avec les mêmes caractéristiques techniques que ceux de ses concurrents les plus connus.

En raison du fait que la plupart des entreprises du monde produisent leurs appareils en Chine, « Xiaomi » a une excellente occasion de « plagier » une nouvelle technologie dans les plus brefs délais. Il convient d'ajouter que chacune d'elles est dans le domaine public et les droits de l'auteur ne sont pas violés. En conséquence, les chinois les intégrent dans leurs appareils.

Cette stratégie garantit une grande compétitivité sur le marché de l'électronique portable, puisque les coûts sont incroyablement bas, et le public cible est énorme. Mais dans un tel système, une énorme production puis des ventes de marchandises provoquent la défectuosité considérable. Ce n'est pas un secret que la qualité des produits chinois est assez basse, ce qui aggrave leur compétitivité. Mais « Xiaomi » lutte activement contre cette «maladie» et ont certains progrès dans la qualité de ses gadgets.

On examine l'entreprise américaine « FitBit ». Il est à noter que c'est la seule des trois entreprises dont l'activité est limitée seulement à la sphère de l'électronique portable. En plus « FitBit » est un pionnier sur ce marché, dont l'activité a commencé en 2007. Son principal débouché c'est le marché américain où on vend environ 70 % des produits [1].

L'auteur estime que la stratégie de « FitBit » est la plus efficace parmi les cas présentés. FitBit développe activement le marketing et la R&D, en plus le prix de ses gadgets est assez attractif, entre Apple et Xiaomi. Son public cible sont des personnes qui pratiquent le sport. En théorie, ses coûts et ses prix pour les gadgets, devraient être les plus élevés, parce que l'entreprise investit dans la publicité et dans les technologies innovantes. Mais en réalité on voit une image différente. Alors, comment le FitBit ont pu atteindre de tels résultats?

Fitbit accorde plus d'importance à la motivation sociale qui est un facteur clé dans l'engagement des utilisateurs et des rumeurs sur la marque. Chaque Tracker Fitbit télécharge automatiquement les progrès de l'utilisateur dans n'importe quel réseau social où il peut être fier de ses succès et concourir avec ses amis [3].

Néanmoins « FitBit » est très prudent dans ses actions, ils pensent beaucoup avent de faire un pas sur le marché et le lancement de chaque modèle est le fruit de très longues réflexions sur sa création.

On peut dire que cette stratégie est la plus pratique et la plus compétitive. Parmi les inconvénients, on peut noter l'impossibilité de la progression immédiate sur le marché puisqu'elle est probable à cause des méthodes artificielles provoquée par des investissements énormes dans le marketing.

Nous avons examiné trois stratèges complètement différentes de trois entreprises, leaders du marché. « FitBit » est la société la plus expérimentée dans ce domaine et, en conséquence sa stratégie a moins de défauts. Son seul inconvénient est l'impossibilité de progresser dans le plus bref délais. D'autre part cela ne peut pas entraver son développement et réduire la compétitivité, parce que ce qui a fortement grimpé, peut très rapidement tomber. Malheureusement, c'est ce qui peut arriver avec « Apple » puisque sa stratégie est la plus risquée et la chance de sa faillite est grande. Aujourd'hui l'entreprise maintient à flot grâce à sa marque, son renommé et un grand nombre de fans de ses produits. Mais si elle continue à à produire la même production, mais dans un packaging différent, le consommateur va commencer à le comprendre et avec le temps, il s'intéresse à la production de ses concurrents plus réussis. La seule raison pour laquelle on préfére « FitBit », c'est que ses produits sont de meilleure qualité et ils sont mieux réalisés et apportent plus de bénéfices pour l'organisation (on se souvient que « Xiaomi » vend ses produits à un prix proche du coût de production).

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LAS PECULIARIDADES Y PERSPECTIVAS DEL DESARROLLO DE LA ECONOMÍA DIGITAL EN CHILE

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Abstract: The article analyzes the success of digital economy in Chile from the perspective of the development of high-tech startups created in the accelerator Start-Up Chile.

The accelerator is a part of the deliberate strategy of the Chilean Government that will help to turn the country into a world hub of technological innovation.
Key words: digital economy; high technology; high-tech startups; startup accelerator.

El bienestar de la economía digital de un país y su competitividad en la economía mundial en gran medida depende de la productividad de compañías privadas especializadas en productos de alta tecnología.

Según el Foro Económico Mundial, de todos los países de América Latina, Chile tiene el mercado de la comunicación digital más prometedor y ocupa una posición de liderazgo (38 puesto) en el Índice de disposición a la conectividad 2016 (Networked Readiness Index – NRI) [2] que representa el uso eficaz de las tecnologías de la información y la comunicación en el país. El estudio de la compañía bancaria grande BBVA "Contexto Digital en Chile" 2016 basado en los resultados del Índice de Digitalización Estructural (construido por BBVA) también confirma que el escenario digital de Chile se aproxima al de países más desarrollados como Irlanda, Bélgica y Austria) [1].

El éxito de Chile en el ámbito de la economía digital se debe a la política deliberada del gobierno que crea las condiciones necesarias para el desarrollo de startups de alta tecnología. En 2010, la organización gubernamental CARGO (Corporación de Fomento de la Producción de Chile) lanzó la aceleradora de negocios Start-Up Chile cuyo objetivo principal es la creación de la cultura local de emprendimiento y la transformación de Chile en el centro principal de innovación de América Latina [5]. El acelerador atrae los jóvenes y emprendedores talentosos de todo el mundo y les ofrece tres tipos de programas con diferentes niveles de apoyo material:

1) "The S Factory" para mujeres-emprendedores cuyo producto esta todavía en los primeros etapos de desarollo. Con la ayuda de esta programa de pre-aceleración mujeres líderes de proyectos con orientación tecnológica reciben 10 millones de peso de subsidio sin comisión y 4 meses de experiencia [6]. Es el tiempo ideal para convertir una idea en realidad y crear un negocio viable.

2) "Seed" para startups innovadores con producto funcional y validado. La aceleradora da a la compañía 25 millones de pesos que es equivalente al 90% del subsidio, 10% debe ser proveido por el fundador [6]. Durante siete meses en Chile emprendedores tendrá la oportunidad de intercambiar experiencias con las personas de todo el mundo y recibir una visa de trabajo por 1 año

3) “Seguimiento” para las compañías incorporadas en Chile que planean expandirse al mercado mundial. (40 millones de pesos) [6] .

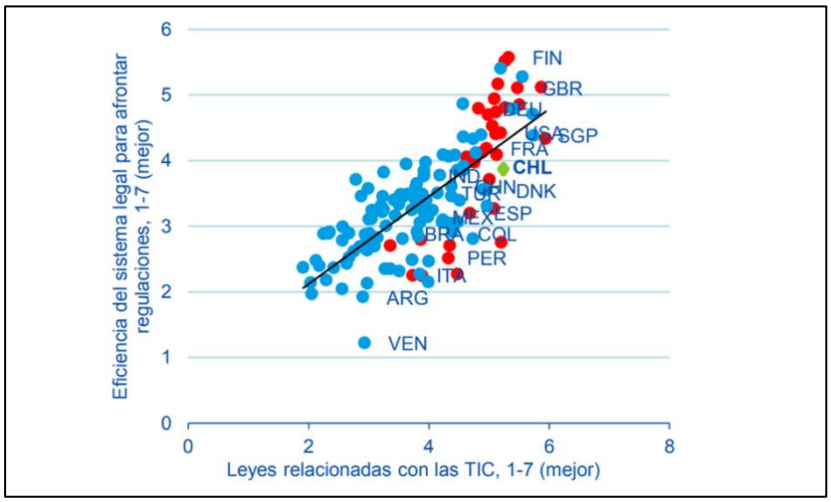
En 2016, gracias a Start-Up Chile, a menudo llamado "Chilecon Valley"[10], debido a la asociación con el éxito de Silicon Valley de Estados Unidos, fueron lanzados más de 1400 startups de 79 países que operan en una amplia gama de industrias: comercio electrónico, Internet de las cosas, tecnologías de la información y la comunicación, datos abiertos; 5162 puestos de trabajo fueron generados, 420 millones de dólares fueron captados "[9]. Las compañías digitales principiantes reciben en Chile no sólo financiación, sino también el apoyo moral de mentores dispuestos a comparte sus experiencias y conocimientos sobre el desarrollo del proyecto.

El ejemplo de la compañía digital desarollada en Start-Up Chile es “Digital Fluid” que provee el sistema electrónico de la medición de agua de manera precisa e inteligente. El sistema hay varios beneficios: 1) es capaz de ahorrar hasta un 30% de Gas mensualmente [3], 2) muestra con gráficos el consumo actual e histórico, 3) es capaz de detectar fugas de agua en departamentos, 4) mensualmente los administradores pueden bajar la información de todo el edificio mediante una planilla Excel por correo electrónico.

Otro ejemplo de un startup creado en la aceleradora de negocios es “Talk Travel” – una voz aplicación móvil que permite a los viajeros a hablar en cualquier idioma con expertos de otros países y encontrar rápidamente respuestas a las preguntas sobre el viaje futuro [7]. Eso reduce el tiempo y esfuerzo necesario para el plan de viaje.

Además de la concesión de beneficios y recursos financieros a startups de alta tecnología el gobierno de Chile se lleva a cabo medidas para mejorar y complementar la legislación relativa a la esfera de tecnologías de la información y la comunicación (TIC). Las leyes relacionadas con las TIC abarcan temas, tales como la protección del consumidor digital, comercio electrónico y garantía de seguridad digital (las firmas electrónicas) [1]. La Ilustración 1 muestra que medida que aumenta la regulación relacionada con las TIC, el nivel de eficiencia del sistema legal aumenta. En este sentido, Chile se encuentra a la cabeza de los países latinoamericanos, con una calificación de en torno a 5 sobre 7 en cuanto a leyes relacionadas con las TIC, y una puntuación de 4 sobre 7 en lo referente a eficiencia del sistema legal.

Ilustración 1. Relación entre la regulación de TIC y la eficiencia del sistema legal [1]



La estrategia de innovación eficaz de Chile ayudó al país ocupar el 7 puesto en Global Accelerator Report 2016 [8] entre los países líderes en términos de desarrollo de Start-ups y el primer lugar entre los países de América Latina por clima de negocios según la clasificación de Forbes "Los mejores paises por negocio" de 2017 [4].

Chile es un país perfecto para las compañías digitales y tiene muchas ventajas para el desarrollo de las empresas: el régimen fiscal favorable, bajo costo de vida (en comparación con otros centros de emprendedores), una gran oportunidad para pruebas de productos, la estabilidad política y económica, con el apoyo activo de las mujeres empresarias.

Por lo tanto , Start-Up Chile ha permitido a Chile mejorar la reputación del país en el mercado internacional de las tecnologías digitales y tiene el potencial de contribuir al crecimiento económico en el país en futuro. El único conjunto de medidas adoptadas por el gobierno de Chile en la esfera de desarrollo de las tecnologías digitales, ha demostrado su eficacia.

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"PUNTO MÉXICO CONECTADO": UN SALTO DIGITAL HACIA EL FUTURO

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Abstract: *This article is devoted to the project "Punto México Conectado" – a government initiative of the Mexican Republic. The major goal of this program is to create digital society within the country. The analysis of the current level of the ICT development index, features and functions of the PMC is given in this article. The conclusions about the current results of the program are provided.*

Key words: national network, ICT development Index, digital skills, digital education, digital society, the knowledge-based society.

México se encuentra en un momento único con condiciones favorables para avanzar en la digitalización del país. El hecho de que México ocupa el 87 lugar (entre 176 países) en el índice del desarrollo de las Tecnologías de la Información y la Comunicación, el indicador que sirve para medir el nivel del desarrollo de la sociedad de la información, hizo que el gobierno mexicano admitiera la necesidad de evolucionar en esta esfera [1].

"Punto México Conectado" es una iniciativa del Gobierno de la República (dentro del Programa de Conectividad Digital) que permite a cualquier persona de cualquier edad, sexo, religión o clase social desarrollar habilidades digitales y emprender proyectos innovadores de empresarios. La red nacional se encuentra en operación desde marzo de 2015 y cuenta con 32 centros, ubicados en veinte capitales estatales y doce ciudades principales con más de 40,000 habitantes. En cada uno de estos puntos se organizan cursos de habilidades digitales (uso de la computadora, el Internet, robótica y programación), juegos, exposiciones y reuniones de personas interesadas en temas relacionados con la tecnología; así como sesiones de orientación dirigidas a los emprendedores para el desarrollo de sus proyectos. Estas actividades se dividen en cuatro grandes pilares, cada uno con un objetivo particular: Miscelánea Digital; ABC Digital; Cultura Digital; Innovación tecnológica. Todos los cursos son absolutamente gratuitos y no exigen el uso de dispositivos personales [4].

El proyecto "Punto México Conectado" ayuda a impulsar la innovación y el emprendimiento, mejorar la calidad de vida de la gente. Su objetivo principal es establecer una red nacional de centros comunitarios de capacitación y educación digital. Entre las metas para el año 2018 destacan las siguientes: atraer por lo menos 100,000 nuevos usuarios; reducir la brecha digital; generar una oferta educativa complementaria para niños; iniciar proyectos de innovación tecnológica [3].

El programa "Punto México Conectado" ha mostrado grandes avances y ha recibido una respuesta entusiasta por parte de la población:

1) México se ha trasladado del 95 lugar al 87 en el índice de desarrollo de las TIC.

2) Este programa ha atraído 250 mil nuevos usuarios en dos años.
3) También Punto México Conectado ha aumentado la contribución de las TIC en PIB del 3,1% (2015) al 3,6% (2017) [2].

El interés por los programas como "Punto México Conectado", así como la nueva dinámica de competencia en el mercado digital, ha generado nuevas inversiones, que se traducen en mayor acceso a las tecnologías, mejores servicios, precios más competitivos y más empleos para los mexicanos. Todos esos esfuerzos contribuyen a que cada vez más mexicanos formen parte de la sociedad del futuro – la sociedad del conocimiento.

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MODERN TECHNOLOGIES AT THE SERVICE OF ARCHEOLOGY AND CULTURAL HERTAGE

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Abstract: *The article focuses on the use of digital technologies for the preservation, representation, enjoyment and promotion of cultural heritage. The article considers the implications of digital technologies and its benefits applied to archeology as part of cultural heritage.*

Key words: culture, cultural heritage, archeology, antiquity, preservation, the information age, digital technologies, revolutionizing, exploration, detection.

New technologies have changed the way we live. The information age has pervaded every aspect of our lives, and archaeology as a part of cultural heritage is no exception. Forming a now-essential part of the field, computers and sophisticated programs are used to write reports, analyze data, virtually model sites, and much more. In this article we are taking a look at some of the modern technologies that are revolutionizing the field in this new age of exploration.

Very often when archaeological sites are in remote and hard-reaching areas, robots replace old tools for less destructive uses. Robots defuse bombs in war zones, and help detect illnesses. Beyond their many roles in modern society, we can add one more: archaeological heavyweights. Whether photographing shipwrecks far beneath the surface of the sea or capturing topographical data from high in the sky, robots are playing an increasingly big part in the archaeology scene where humans can't. For example, robotic snakes are used to explore pyramids where crawl spaces are too tight for even the lithest human explorers [4].

Drones, frequently used for military purposes in inaccessible territories, are increasingly used for civilian purposes. They're not just for spying, warfare, or Silicon Valley CEOs anymore. Drones are becoming more mainstream and less expensive, allowing archaeologists to do everything from discovering new sites, monitoring looting and environmental threats. Dr. Luis Castillo, the vice minister of cultural heritage in Peru, uses his fleet of helicopter drones to "map, monitor and safeguard his country's ancient treasures," according to the New York Times. It's a need made palpable by the encroachment of land developers, looters, and other malefactors all over the world [1].

Peruvian archaeologists use mini remote control helicopters with high definition cameras to study and protect archaeological sites in Peru. Through a partnership between the Catholic University of Peru and Harvard University, prototypes are now in use in San Jose de Moro where the new technology is being used to compile a complete and detailed record of the many archaeological sites in the region.

The technology replaces countless hours spent by researchers on top of ladders taking photographs and guarding the precious ruins. One of the key roles of the helicopters will be to increase the security and protect the invaluable ruins which are under threat from the growth of agriculture, land trafficking, as well as criminal activity. In a recent example, a 5,000-year-old pyramid was decimated in Peru by two private building companies who claimed to own the

state-run archaeological site at El Paraiso. It is hoped that the new remote control helicopters would prevent such irreversibly damaging acts from taking place and, at the very least, to catch those responsible.

More and more museums are fighting tech with tech to win our eyes. According to The Telegraph, "The British Museum is to introduce virtual reality headsets for teenagers, because the traditional way of looking at objects in display cabinets no longer holds sufficient appeal for the young." To create a fully immersive experience, the museum is setting up a physical reconstruction of a Bronze Age-era roundhouse filled with representative artifacts from the period. They're hoping that this new type of experience will draw in not only teenagers, but also future generations that will be dependent on smart technology [3].

The technology behind space archaeology, known as LIDAR, works by tracking the surface density of specific areas by bombarding specific areas with millions of laser pulses. The resulting images combine data from multiple spectrums of light, with individual colors representing the density of different layers of sediment. LIDAR is used for mapping long-lost cities and is also useful for mapping areas too dangerous or remote to access with traditional techniques.

Australian archaeologists used cutting edge remote-sensing technology to make the remarkable discovery in Cambodia of a 1,200-year-old lost city that predates the Angkor Wat temple complex. The sensing technology, called LIDAR, has opened up new and exciting possibilities for archaeological exploration by replacing the need for explorers and researchers to aimlessly hack their way through dense jungles. Instead they are led directly to sites of significance through the aerial mapping technology [4].

Dramatic progress has also been made in nuclear physics and x-ray technology where new technology involving transportable instruments enables archaeological finds to be analyzed in situ rather than having to remove them from the site and study them in a laboratory. According to nuclear physicist, Professor Claudio Tuniz, advanced scientific technology in nuclear physics and x-rays have revealed more about palaeoanthropology in the last few years than in the hundred years prior [2]. Earlier, people often did not hesitate to destroy the cultural heritage. For example, in Troy, the amateurish excavations of the German explorer Heinrich Schliemann unalterably damaged the delicate layers of civilization entombed beneath the ground. In Athens, the most beautiful friezes of the Parthenon were hacked off and absconded with to Britain. Thankfully, methods of preservation of cultural heritage have improved [5].

In conclusion, we can say that people are increasingly turning to high-tech technologies to explore the old and discover new things, and archeology is just one of the areas of research where it is used. Archaeology has reached an exciting and fast progressing period in which mysteries of our past are rapidly emerging and new knowledge about our ancient origins is finally getting pieced together.

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THE ROLE OF INTEREST RATES AND INTEREST RATE MODELS IN A MODERN COMPANY: A REVIEW OF THE LITERATURE

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Abstract: *This paper reviews the literature on the interest rate models, based on a model formulated by Vasicek for a production economy, and compares interest rate models derived for different purposes. A number of authors have improved and developed Vasicek model further, others have analyzed factors which affect interest rates and derived interest rate models, which can be applied in decision-making of a company. To date, the problem of interest rate models application has become more relevant that ever due to instability of the economic system and financial crises. Here we analyze variables affecting interest rates, the effect of dynamics of interest rates and the use of interest rate models in hedging, risk management and investment decisions. We conclude that the interest rate models need further development in order to be relevant in current economic situation.*

Key words*: Interest rate models, hedging, risk management, investment.*

Since the 1970s interest rate models have started to gain popularity and soon obtained a central role in both financial research and practice. The models are implemented by companies to correctly price financial securities and maintain efficient performance. However, the pricing is mathematically demanding, because the term structure of interest rates and its historical dynamics are necessary. This paper aims to discuss variables that influence interest rates and review recent developments and most important applications of interest rate models. The main focus of this paper is to analyze the research results, rationale of the problem: Effect of interest rates on the economy and application of interest rate models in hedging, risk management and investment.

The central issue that requires attention in interest rates model is that of arbitrage. Different securities pricing imply the same market risk, so the model should be arbitrage free. The fundamental ideas are advanced by Oldrich Alfons Vasicek [5, p. 293-307]. He studies the term structure of interest rates in a production economy which consists of participants with non-uniform preferences. A number of different models of interest rates have been proposed, derived from the principle of no arbitrage, however, author uses one-factor interest rate model in his research. He derives conditions for the equilibrium economy and uses numerical examples to show that an equilibrium economy in which interest rates are controlled by a specific model exists and thus proves that one-factor model is sufficient if there is only one source of risk.

However, Vasicek model allows interest rates to be negative. This problem is covered by Alex Paseka, Theodoro Koulis, Aerambamoorthy Thavaneswaran [4, p. 141-158]. They assess recent innovations in interest rate models and attempt to provide a unified approach to financial problems. The authors raise a problem of discontinuity in fluctuations of interest rates and reveal that they commonly originate due to central bank's policy. This statement is supported by both theory and practice: if the economy is growing strongly, central bank raises interest rates in order to prevent inflation from increasing; if the economy is in state of recession, central bank decrease interest rates in order to stimulate the economy. Thus, central bank's policy may cause interest rates to fluctuate. The authors also point to quadratic-Gaussian specification, which does not suffer from negative interest rates problem. Moreover, the results of the study look convincing because empirical evidence suggests that interest rates display skewness and kurtosis, thus jump-diffusion models are more suitable in the circumstances. Therefore, the article presents a substantial comparative

analysis of interest rate models and important results concerning the appropriate model application supported by a number of examples.

Accurate specification of interest rate model is required in pricing stocks and the corresponding derivatives for a number of reasons. First of all, Mengmeng Guo, Wolfgang Karl Härdle [1] implicate the dynamics of interest rates for hedging purposes. They discovered that fluctuations in the interest rates are stronger during crises periods. These findings are supported by considerable statistical evidence, in addition to economic reasons. If the macroeconomy is unstable, for instance, it is facing a financial shock, interest rates will be equally more volatile. For example, in 2007, the financial world suffered a great volatility of indicators due to the financial crisis. In general, changes in business cycle conditions or macroeconomic shocks affect the dynamics of interest rates in terms of mean and volatility, which is supported by tests in the paper. The findings also show that the coefficients in the models, especially in the one-factor models, such as Vasicek model, are time-varying and thus they provide a further development of that model which can be applied in hedging. Based on these studies, it can be stated that a short-rate model with constant parameters may not be valid for long periods. Thus, the paper is an important contribution to improvement of a company's hedging strategies.

Secondly, proper understanding of the dynamics of interest rates is crucial in credit risk management. Since first appearance of credit default swaps, they soon become one of the most popular derivative instruments used in credit risk management. Ruili Hao, Yonghui Liu, Shoubai Wang [2, p. 10-20] discuss the problems of pricing the credit default swaps. The necessity of the study is based on the fact that these derivative instruments not only are convenient to use, but also bear risk within themselves. That is why pricing of credit default swaps requires the use of more effective models, which reflect the real market. The article presents pricing these credit derivatives by using the reduced-form models, because the reduced-form approach is more flexible in the real market, in contrast to the structural approach. Under assumption that the fractional Vasicek interest rate model reflects the interest rate risk, the authors specified the model of the firm's default intensity, and present methods of pricing of risky bonds and credit default swaps. Therefore, the article is a useful backdrop to those interested in credit default swap pricing with consideration of fluctuating interest rates.

In addition to risk management, the influence of interest rate fluctuations on the investment strategy is one of the major issues, as stressed by Adeline

Peter Mtunya, Philip Ngare, Yaw Nkansah-Gyekye [3]. The authors outline the problem of a company that needs optimizing the revenue usage during the investment in the environment of fluctuating interest rates. Consideration of the uncertainty of interest rate movements is relevant because cost of borrowing increases with the growth of interest rates, therefore, investment should have larger return to remain profitable. The authors have specified a model describing optimal strategy of investment, which shows that the necessary condition for investment is low interest rate and the high profit level. The study also reveals the existence of a threshold interest rate level, which can be used in investment decision-making. So the authors point out that the value function exists and it is unique and concave in both the profit and interest rate variables, and thus can be considered a solution. Numerical tests for the sensitivity of the derived function and a plot that gives the general overview of the value function over the interest rates and the profit levels supports their findings. The authors conclude that finding the optimal moment in time for loan assessment for investment purposes is also possible.

Knowledge of the variables that can affect interest rate to fluctuate and application of interest rate models is important for optimal managerial and investment decisions. One should consider not only the effect of central bank's actions on interest rates, but also be able to estimate the volatility of interest rates due to macroeconomic changes, such as financial crises. In decision-making of a company, it is crucial to use optimal interest rate model to fulfill its aims. Nowadays as the financial instruments are becoming more and more sophisticated, accurate estimation of the effect of interest rate fluctuations becomes even more relevant, because of interdependence of various financial institutions. Thus, a further development of interest rate models, which will be able to optimally reflect current trends, is required. These models should take into account instability of the economic situation, main aims of the company implementing it, provide protection from interest rate risk and credit risk and adequately respond to the new challenges of the global financial world.

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KEY ASPECTS OF INTERNET-BANKING IN RUSSIA

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Abstract: *The author considers some main aspects and prospects of Internet-banking in Russia. Today it is a progressive direction concerning with bank activity, which provides a number of remote services for customers. In recent years the use of Internet-banking in Russia is gradually increasing.*

Key words: *bank, Internet-banking, remote customer services.*

Nowadays almost all spheres of our life are connected with Internet. The economy of Russia is not an exception. Today different economy institutions interact with Internet. Therefore, Internet banking is a very perspective direction of banks activity, which gives a lot of opportunities for banks to broaden the range of their clients.

Firstly, it`s important to define the Internet-banking activity. Internet banking is a way of remote customer service, carried out by a credit organization via Internet including informational and operational collaboration with them. The development of computer devices and information technology, as well as the creation in 1990-s the world wide web "the Internet" gave a powerful impetus to create the system for providing remote customer service such as Internet banking. “This has contributed to "reducing the distance" between producers and consumers of banking services, and significantly increased the efficiency of banking transactions” [1].

Key aspects of Internet-banking are the following: decreasing cash money use and increasing the Internet-banking use. What does it mean? If we look at the money supply structure, we can see that the part of cash money is less than the non-cash money one. This fact is connected with increasing popularity of Internet banking. More and more clients of banks prefer to use Internet-banking

services and more banks are ready to provide these services due to the advantages of the Internet-banking.

As for banks the advantages of Internet-banking are following: work efficiency, the wide range of clients, the opportunity to work around a clock, the lack of queues. As for banks clients there are following advantages of Internet-banking, they are: the speed of carrying out money operations, free access to the number of bank services, the low prices of Internet service.

Services provided with remote Internet-banking systems are the following: authentication process, bills and taxes payment, receiving notifications to the actions performed, confirmation by the user of the operations performed and the use of electronic signatures. All these functions are important, and they make customer`s life more convenient.

Let`s look to the most popular Internet-banking platform in Russia. According to research of e-Finance User Index 2017 almost 35,5 millions of Russian citizens use at least one Internet bank, or 64,5% of all Internet users in Russia. Top-5 of Internet-banks with the large number of users includes: Sberbank-Online, VTB 24, Alfa-bank, Tinkoff bank, Russian Standard [2].
Almost 82% of all Internet-banking users in Russia have an account in the Sberbank-Online system. All Internet-banking systems of above mentioned banks have been developed since 2010-s and now they provide a wide range of different online-services for their customers. Moreover, call-centers of these banks are always ready to help clients with all problems.

It should be pointed out, that all Russian remote banking services are governed with Russian legislation. The activity of systems is regulated with resolutions of the Russia Federation Central bank and different internal banks regulations. Moreover, the Bank of the Russia Federation issued regulatory letters as regards to managing with risks, connected with using Internet-banking.
But there are some problems connected with Russian Internet-banking systems. The main things here are the increasing of hacking attacks, undeveloped interface of some online-banking platforms, poor competence of using Internet services by office workers and lack of client`s awareness of Internet-banking possibilities.

To conclude with, Internet-banking is one of successfully developed directions in the area of Russian economy, and there are a lot of perspectives because of fast IT development. So, in the nearest future banks will expand the number of Internet-banking services and programs that will improve safety-systems of Internet banks.

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ARBEITSMARKT IN RUSSLAND UNTER DER BEDINGUNGEN DER DIGITALISIERUNG: PROBLEME UND PERSPEKTIVEN

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Annotation: *der Artikel wird dem Problem der Digitalisierung in Russland gewidmet. Die Autorinnen betrachten die Ursachen der Veränderung der Nachfragestruktur auf dem Arbeitsmarkt. Insbesondere wurde strukturelle Transformationen in der Beschäftigung und Ausbildung unter der Bedingungen der Digitalisierung in Russland betonnt. Auf Grund der Studien des Russischen Arbeitsmarkts werden Probleme und Entwicklungstendenzen des russischen Arbeitsmarkts analysiert.*

Schlüsselwörter: *Digitalisierung, Arbeitsmarkt, hochqualifizierte Arbeitskräfte.*

Die fortschreitende Digitalisierung von Prozessen und Arbeitsabläufen beeinflusst bereits heute unsere tägliche Handeln – die Art unserer Kommunikation und unseres sozialen Umgangs, insbesondere aber auch die Funktionsweise unserer Wirtschaft und Arbeit. Man spekuliert und diskutiert in diesem Zusammenhang über zahlreiche mögliche, kurz- wie langfristige Folgen. Ein zentraler Aspekt dieses Artikels ist die strukturelle Transformation des Arbeitsmarkts [4]. Darum ist es, unserer Meinung nach, wichtig die Folgen der Digitalisierung für den Arbeitsmarkt in Russland zu bestimmen, Faktoren, die am meistens den Arbeitsmarkt beeinflussen zu untersuchen und die Entwicklungsperspektiven festzustellen.

Im Juli 2017 wurde das Programm "Digitalisierung in der Russischen Föderation" beschlossen, die auf die Implementierung der digitalen

Technologien in allen Bereichen der Gesellschaft gerichtet ist [2]. In diesem Artikel gehen wir davon aus, dass viele Arbeitsplätze im Prozess der Digitalisierung verändert werden. Die Forschungsagentur von Russischen Arbeitsamt hat die Forschung von den 22 Arbeitsbereichen durchgeführt, die insgesamt 3,5 Millionen Menschen umfasste. Das Ergebnis ist nicht optimistisch: 80% der arbeitsfähigen Bevölkerung Russlands hat keine Fähigkeiten und Kompetenzen, die auf dem digitalen Arbeitsmarkt gefragt sind. Deshalb könnte man, mehr oder weniger, über die Probleme und sogar über die Stagnation des Arbeitsmarkts in Russland sprechen.

In dieser Situation ist es notwendig, die Veränderungen der Nachfrage nach Arbeitskräften in der Russischen Föderation grundsätzlich zu untersuchen. In diesem Artikel wurden die statistischen Angaben von drei Wirtschaftsbereichen analysiert: Industrie, Landwirtschaft und Transport.

Laut der Forschungsergebnisse ist es festgestellt, dass der Arbeitsplatzabbau bis zum Jahr 2027 wesentlich reduziert werden muss [6]. Die möglichen, strukturellen Transformationen des Arbeitsmarkts stellt man auf dem nachfolgenden Diagramm dar (Abbildung 1).

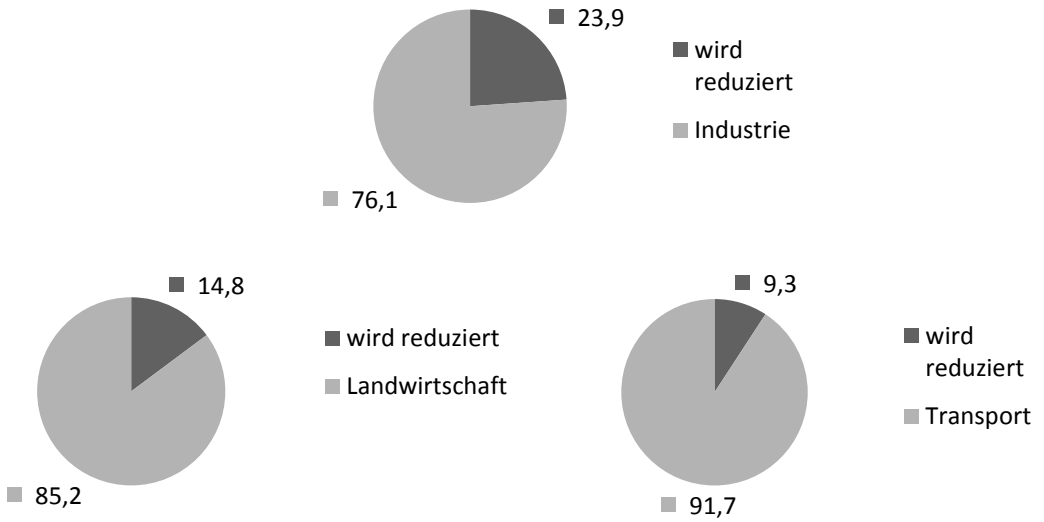
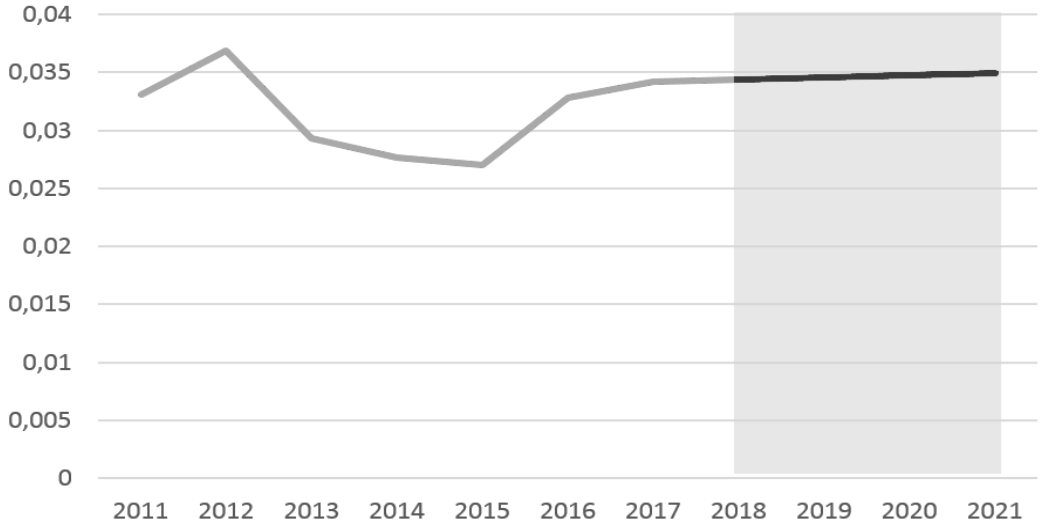


Abbildung 1: Transformation des Arbeitsmarkts in Russland

Wie man auf diesem Diagramm sehen könnte, wird der Arbeitsabbau in den verarbeitenden Industrien um 23,9 Prozent gesunken. In solchen Wirtschaftsbereichen wie Landwirtschaft und Transportzweig wird der Arbeitsabbau, entsprechend, um 14,8 und um 9,3 Prozent reduziert.

In diesem Artikel wäre es auch für uns wichtig die Situation auf dem Moskauer Arbeitsmarkt zu betrachten. Die Autorinnen haben die statistischen Angaben vom Rosstat analysiert und festgestellt, dass die Implementierung der

Digitalisierung auch den Arbeitsmarkt von Moskau beeinflusst, den im Jahre 2015 mehr als um 670 Tausenden Arbeitsplätze reduziert wird [1]. Diese Tendenz kann man wir auf der nächsten Grafik betrachten (Abbildung 2).



Quelle: Rosstat: Zeitraum 2011-2017 «Extrapolation bis zum 2021»

Abbildung 2: Arbeitslosigkeit in der Moskau Region

Der Grafik nach ist es klar, dass die Arbeitslosigkeit ab 2015 gestiegen ist. Die Extrapolation von Rosstat bis zum 2021 hat eindeutig gezeigt, dass die Arbeitslosigkeit wegen der Digitalisierung in der Moskau Region steigen wird [3]. Das Moskauer Arbeitsamt hat herausgefunden, dass der Arbeitsmarkt in Moskau sehr stark, unter dem Einfluss der Digitalisierung transformiert wird. Insgesamt sollen in Russland in 10 Jahren etwa 6,7 Millionen Arbeitsplätze automatisiert werden.

Einige Experten meinen, dass die Digitalisierung keine Arbeitslosigkeit schafft, aber sie ruft strukturelle Probleme in der Beschäftigung und Ausbildung hervor [5]. Die Studien von Russischen Arbeitsamt beweisen, dass heutige Beschäftigungsstruktur des Arbeitsmarkts in Russland, im Vergleich mit der UdSSR Zeit, nicht besonderes verändert ist: mehr als ein Drittel der Bevölkerung ist mit der niedrig-qualifizierten Arbeit beschäftigt, zum Beispiel, die Fahrern, die Verkäufern und die Wächtern [1].

Nur 17% der Bevölkerung arbeiten in hochqualifizierter Arbeit, die der Kategorie "Wissen" angehört. Der Mangel des qualifizierten Personals ist 10 Millionen Menschen heutzutage [1]. Was die Ausbildung anbetrifft: 91% der Russischen Arbeitgeber meinen, dass die Absolventen nicht genug praktische Fähigkeiten haben. 83% Arbeitsgeber meinen, dass das Niveau der Ausbildung in Hochschulen durchschnittlich oder niedrig für modernen Arbeitsmarkt ist [7].

Zusammenfassend, muss man sagen, dass der Arbeitsmarkt unter der Bedingungen der Digitalisierung wesentlich transformiert wird. Dieser Prozess ruft wie positive, als auch negative Folgen hervor. Die Digitalisierung ist, aber, unabhängig von den Nachteilen, ein Schlüsselfaktor, der die Produktivität des Arbeitsmarkts und, im weiteren Sinne, des russischen Wirtschaftssystems erhöhen könnte. Dank dem Programm «Digitalisierung in der Russischen Föderation» könnte die Arbeitsproduktivität in 10 Jahren um 8-14 Prozent steigen und damit das Bruttoinlandsprodukt des Landes erhöhen. Nach der Meinung der Autorinnen des Artikels, die Digitalisierungsstrategie einen richtigen Weg ist, um sozial-wirtschaftliche Lage von dem Arbeitsmarkt Russlands qualitativ zu verbessern.

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DIE MÖGLICHKEITEN UND DIE RISIKEN DER PERSPEKTIVISCHEN TECHNOLOGIE BLOCKCHAIN IN RUSSLAND UND DEUTSCHLAND

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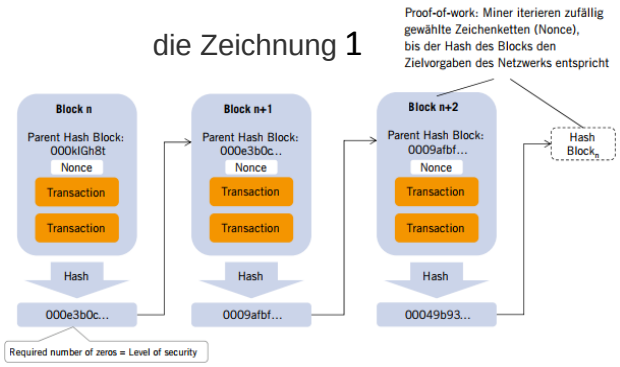
***Die Inhaltsangabe**: Im Artikel wird das Prinzip der Arbeit der Technologie-Blockchain beschrieben. Es werden die Beispiele der Anwendung der vorliegenden Technologie in anderen Ländern, sowie die ersten Versuche der Anwendung in Russland und Deutschland betrachtet.*

***Die Schlüsselwörter:** die digitale Wirtschaft, Bitcoin, Blockchein, die Innovation, die Smart-Verträge, der Technologie, die Energie, die Verteilung der Energie.*

«Blockchain ist eine verteilte, dezentrale Datenbasis, die jemals vorgenommenen Transaktionen unveränderlich dokumentiert» [3]. Die Datenbank wird chronologisch linear ausgedehnt, vergleichbar einer Kette, der am unteren Ausgang ständig neue Elemente hinzugefügt werden.

Ist der Block voll, wird der nächste produziert. Jeder Block enthält eine Kontrollsumme des vorhergehenden Blocks. Alle Transaktionen werden innen eines Blocks verschlüsselt und die Blöcke auf einer Menge von Computern abgelegt. Dies stammt ohne «dritte Person» oder andere zwischengeschaltete Einrichtungen. Dadurch werden Informationen fälschungssicher abgespeichert.

die Zeichnung 1



Berühmt wurde Blockchain als Technologie hinter Bitcoin. Aber es befindet sich viel mehr dahinter, sodass Blockchain unabhängig von Kryptowährungen als die grundlegende Technologie für einen sicheren „Austausch von Werten“ betrachtet werden kann.

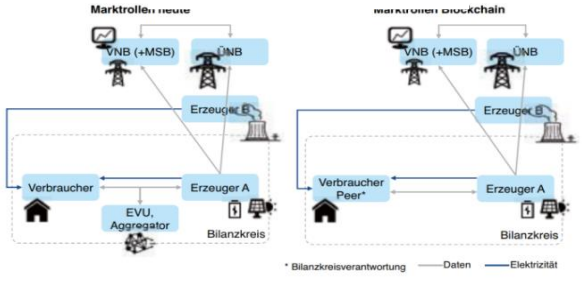
In unserer Zeit existieren viele Unternehmen, die sich auf dieser Technologie-Blockchain basieren. Wir betrachten die interessantesten Unternehmen. Bitnation ist ein Unternehmen, das sich selbst als den ersten "elektronischen Staat" der Welt bezeichnet, der auf Blockchain-Technologie basiert. Er bietet Kunden eine Reihe von Dienstleistungen, die typisch für traditionelle Länder sind, wie: Personalausweis, Bestätigung wichtiger Ereignisse (Notar). Unter anderem gibt es Kredit-Geschichte, Versicherung,

usw. Das Projekt hat auch ein Grundbuch für Ghana entwickelt und getestet, wo 70% des Grundstücks nicht ordnungsgemäß registriert sind, dass Investitionen in Immobilien und Kreditvergabe verhindert. Im November 2015 entwickelte Bitnation in der Zusammenarbeit mit der Estnischen Regierung notarielle Blockchain-Service für Residenten Estland. Außerdem testiert Sberbank das System des Dokumentendurchlaufes aufgrund Blockchain. Experten schätzen, dass die Blockchain-Technologien die Kosten der Banken um 80% reduziert werden können. Smart Contracts machen Transaktionen schneller und billiger. Mit Blockchain wurden – wie bereits beschrieben – Smart Contracts ermöglicht. Wenn eine schnelle und transparente Ausführung von Transaktionen in hoher zeitlicher Auflösung, zu einem geringen Risiko für einen Kontrahenten wichtig wird – wie in der neuen Energiewelt – sind Smart Contracts interessant. Fixe und mobile Aufbauen, z.B. «kleine dezentrale Kraftwerke, Speicher oder E-Vehikel können technisch gesehen diese Funktionalität nutzen, um mit eingebauter e-Wallet Transaktionen untereinander M-2-M (die Maschine -zu-die Maschine) zu ermöglichen» [2].

Die Vorteile von Blockchain: Spart Zeit (Verkürzung von Transaktions- und Synchronisationszeiten von bisher Tagen auf nahezu Echtzeit); Eliminiert Kosten (Wegfall von Overhead und Vermittlerkosten); Reduziert Risiko (Geringeres Potential der Drohung in Bezug auf Manipulation, Betrug und Internetkriminalität); Steigert Vertrauen (Hohe Zuverlässigkeit durch gemeinsame Prozesse und Notiz).

Es gibt eine innovative Entwicklung der Anwendung der Technologien in Deutschland: «die Blockchain-Technologie

die Zeichnung 2



ist eine dieser neuen „digitalen Treiber für die Energiewende» [1]. Als vorliegender Hoffnungsträger für ein zukünftiges „Internet der Energie“ lassen sich dabei Angebot und Nachfrage in Echtzeit vorstellen. Der Handel mit der Elektrizität zum Beispiel wäre damit direkt zwischen Produzenten und Konsumenten möglich, ohne vermittelnden Dritten. Die Vorteile befinden sich in der Hand: die Kosten der Transaktion werden drastisch gesenkt, der Handel wird schneller, aber auch sicherer, da die großen Umfänge der Daten bei jedem einzelnen Teilnehmer liegt.

So kann man die Schlussfolgerung ziehen, dass die betrachtete Technologie perspektivisch ist und hat die breite Sphäre der Anwendung.

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ELECNTRONIC PAYMENTS AS ONE OF GLOBALISATION ASPECTS

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Abstract: *The article deals with the history, essence and means of electronic payments. Their influence on the process of globalization as well as the problems of cashless economies and payments security are also analyzed.*

Key words: *electronic payment means, globalization, payment security.*

An electronic payment system is a way of making transactions or payments for goods and services with the help of information technologies instead of using cash money. It is also called online payment system.

Electronic transactions themselves originate in the first half of the 1990s. The first financial institution, which offered its members a number of online Internet banking services, was created in 1994. It was called Stanford Federal Credit Union [1].

However, this system was not comfortable enough for daily use. Nowadays the number of ways for shoppers to pay by electronic money has significantly increased. They are: credit cards, digital wallets, electronic cash, mobile payment etc. Their significance in our lives cannot be overestimated. The electronic payment system has grown increasingly over the last decades due to the growing spread of internet-based banking and shopping.

Globalization is a complex web of social processes that intensify and

expand worldwide economic, cultural, human, and technological exchanges and connections between different countries and regions. The flow of money and capital is one of its key aspects. In its turn, electronic payments constitute a major part of this flow. Previously, international trade was fully based on cash money and some specific goods which were used as a medium of exchange. With the creation and evolution of e-money transactions costs were greatly reduced and thereby the volume of trade in the countries affected by this phenomenon has risen. Obviously, electronic payments removed plenty of obstacles to worldwide money movement and thus can be considered as a factor promoting globalization. Now we would like to tell more about the link between e-money and globalization process [2].

The role that mobile devices play in relationships between customers and sellers is crucial as for many customers mobile banking might be the only way of interaction with the seller. Against a backdrop of economic difficulties, electronic payments represent a strong revenue generator and valuable tool for customer retention. If electronic payments have not been created the chance to develop world market would have been insignificant.

Electronic payments are now used practically in all counties but there are core and periphery countries. The core countries are industrialized capitalist countries which periphery countries and semi-periphery countries depend on. Core countries control and benefit from the global market [3].

In spite of the global shift to China and India, this core still owns, produces and consumes over 80% of global goods and services. Therefore, core economic processes are characterized by relatively high-technology, high-pay activities, high capital investment while periphery processes are at the other end of the scale. These countries are already the half of the way to development of “cashless” economy [4].

These statistics show that the interest in electronic transactions is currently increasing in periphery countries which are engaged in this process and may become a part of a world trading system: all regions of the world will become interconnected.

What is the advance of electronic transactions? The answer is obvious. They will continue to develop and expand the world market. The reason of it is that digital money is much cheaper for the government as currency notes and coins are expensive to produce, maintain, and replace.

The whole world is moving towards cashless economy, private and government organizations are working together to achieve that goal as they see

the benefits. A lot of developed countries want to be 100% cashless economies this year with Belgium, France and Canada leading the way. Other countries like the US and the UK have kept a healthy goal of achieving 75% transactions until 2025 [5]. There are concerns regarding adaptations and security, primarily among people who are not a part of the millennial generation but only gradual exposure and education can solve this problem as eventual digitization of all money is inevitable.

Of course, these processes caused different changes in consumers' culture. It goes without saying that consumer behavior has changed dramatically in a short period of time, which is explained by the development of e-commerce. Now goods can be purchased all over the world without changing the localization of the customer.

Consumer behavior in this or that market is a very interesting subject to study. The motivation and consumer intentions have been analyzed in the scientific literature on economics and sociology. Famous classics in their works tried to sum up all the rules of consumer behavior. But nowadays, at the age of electronic marketing and communications, it becomes more difficult to study all the new aspects of customers' culture.

Some irrational motives for buying through modern electronic systems always arise in consumers' minds. Therefore, it is not surprising that a person has a need for self-affirmation, which can be realized by making purchases. Thus, we can notice that a person while purchasing goods or services (which are not so important for him at that moment), tries to join a social group that attracts him, or vice versa, be separated.

However, in most cases a person has a desire to spend his resources rationally and minimize his expenses. Here the mass media influence the broad strata of society, offering unsustainable consumption in the format of "life on credit" with the slogan "Consume now - you will pay later."

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THE PROBLEM OF CROSS-CULTURAL INTERACTION VIA LANGUAGE

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Abstract: *This article describes the special role of English as the international language in globalization and in the historical development of other countries. Some native varieties of English caused by national peculiarities are mentioned.*

Key words: *international language, national peculiarities, globalization.*

One can hardly believe that before Shakespeare's time English was only one of regional languages in the North of Europe. However, in the course of history it has become the international language spoken by more than 2 billion people all over the world.

England had a great impact on the development of the world. The British Empire, at its peak, covered almost a quarter of the globe (23, 84%) [1], with such countries as Ireland, Canada, the USA, India, Australia, New Zealand being parts of the empire. The colonization had many positive effects on the colonies and many of the benefits can be witnessed today. The majority of the former colonies are currently well-developed countries, and it is Britain that ensured this level, helped them build up their economy, and brought progress to these countries.

The first country which is worth considering is Canada. The natives of Canada fared better than other colonies, mostly because their communities did not stand in the way of the settlers' desire for land. They accepted the English language and culture. Thus, according to statistics 57.8% of the population speaks English, only 22.1% French, and 20.1% other languages [4].

India is another English-speaking country. It is the state in the South of Asia where Britain built an extensive railway system, established a postal and telegraph network, organized the basics of industry, constructed canals for irrigation, started a lot of schools, introduced modern health care and through relief work saved millions of lives from famine [3]. English has become the state language alongside with Hindi giving incentive to international cooperation in India.

In Australia the hunting and gathering culture of the Aborigines was in conflict with the settlers' desire for land and had to give way. The settlers' cruelty provoked resistance which was crushed and Britain's power as well as their language were established [5].

As for New Zealand, much the same grim fate awaited the Maoris in New Zealand, although they received better treatment in the land settlements that were finally made [2]. All countries listed were colonies of England and this played a decisive role in the aspect of their language component, English having acquired the status of the official language. This facilitated the integration of the country into international community.

It goes without saying that the English language has a great importance for the process of globalization being the universal means of communication and millions of people learn and speak English to be successful in business, travelling, to studying. English is needed in vast parts of our lives such as watching films, listening to music, working in social networks, etc.

However, it is necessary to take into account that native languages impose some changes on English according to national linguistic, cultural, religious or ethical peculiarities. These changes may be found in different aspects: pronunciation vocabulary, grammar. Hence, alongside with familiar American English, Australian English there appeared Spanish English (Spanglish), Russian English (Ruslish), etc.

Thus, global interconnections in different spheres of modern world show that language interaction is very important both for English as international language and for native languages having their national peculiarities. This should be taken into account while preparing for intercultural communication.

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THE IMPACT OF DIGITAL TECHNOLOGIES ON CULTURAL DIVERSITY

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Abstract: *As the title implies the article gives a detailed analysis of the digital technologies' role in the globalization process and how they affect modern culture and education. The paper expands on trends, objectives and the impact of digital technologies on both cultural diversity and educational process.*

Key words: *digital technologies, culture, access, creativity, education.*

Everybody knows that in the past two decades, digital technologies have changed the world's cultural scene profoundly as well as they have changed the way of getting education. People invented lots of forms of creation, production, distribution, access and participation that have revolutionized all industries. New technologies cannot be said to be either positive or negative in themselves but they provide both opportunities and challenges for the modern world, depending on how they are applied in each context. They can generate a rich and dynamic educational market developing cultural industries or concentrate the supply in the hands of very few players.

Summarizing all the information analyzed in this report, this problem can divided between 3 major themes: access to culture and education, creativity and online-education industries [2].

It is clear that new technologies imply major advantages in terms of access to culture and education. Digital distribution allows people to get not only additional education, but even higher education by the Internet. Internet also allows to share movies, music, books and other cultural subjects to other people worldwide. The market of online-education is developing rapidly. Nowadays lots of web-sites such as Skillshare, Brainly or Coursera provide educational services online. And this market is developing fast. It's about $5 trillion now and it's going to be $7 trillion in 2021. There are different standards of doing business here such as P2P, B2C or B2B. P2P and B2C are most popular today [3]. Of course, due to the large territory, Russia's educational online-market is developing too. There are sites such as Synergy where everybody can get higher education or special courses. Unfortunately, there are a number of barriers that prevent citizens from making full use of these advantages. To begin with, the digital availability to the new technologies differs between different socioeconomic sectors; between urban and rural areas; between the capital and the rest of the territory. In this context, some foundations and large global

platforms have proposed free or very low cost schemes so that people in developing countries may access the Internet. An example of this is Free Basics, which has already taken its first steps to providing mobile technology access in Colombia, Peru and Bolivia, among other countries [1]. Another interesting fact for you is that spaceX founder Elon Musk is planning to launch 4,425 satellites to provide free high-speed internet to the whole world and solve the problem of access.

The digital age has an impact not only on access but also on creativity and on the status of teacher. First, it is clear that local creators in general can gain greater visibility thanks to new technologies. Of course, if you want to share your works, you can do it in SoundCloud, Instagram, Tumblr or any other platform depending on the way of your works. It helps to advertise you and communicate directly with their public. Moreover, you can become a teacher to other people and share your skills. Services we've discussed such as Skillshare gives you such ability. Everyone in online-education can become both teacher and student. Thanks this ability people around the world can share their culture. Unfortunately, the digital landscape is not without risks. Digital tools increase access to the information, paradoxically, the exponential growth in content offerings from around the world may detract attention from local artists.

The next point is online-education industries. The advantages of new technologies in the field of cultural industries such as education are undeniable. It is necessary to understand that the digital age makes it possible to reduce distribution costs by savings, new financing methods or business models and so on. Cultural industries are actively incorporating new technologies to make more profit. For example, P2P-technology in education includes no any servers [2]. That's why expenses and prices here are lower. All in all, the average check in Russia's education industry is going to become higher due to the rising popularity of these services. Popularity is rising due to the reducing number of regional educational and cultural organizations. However, there are some barriers here too. First of all, small and medium-sized enterprises, often lack the necessary digital tools and skills. Moreover, while it is true that in many cases the new environment enables costs to be brought down, migration from analogue to digital is often very expensive: for example, scanning the entire backlist of a publishing house can incur a great expense that small companies find difficult to bear. Furthermore, consumer practices of the new environment break with traditional modes of distribution and require the permanent reorganization of business models.

In conclusion, digital technologies are having a significant impact on the cultural scene of the world, and the landscape of opportunities, barriers and policies associated with the protection and promotion of the diversity of cultural expressions in the digital era. Today, new technologies cannot be said to be either positive or negative in themselves but instead can be regarded as both an advantage and a challenge, depending on how they are applied.

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THE ROLE OF BIG DATA IN CULTURE AND SOCIETY DEVELOPMENT

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***Abstract**: The article describes some aspects of the application of Big Data and its impact on the cultural and social sphere. It also covers such points as information consumption, policies in cultural sector and creating a smart city.*

***Key words**: Big Data, smart city, cultural policies, targeted offer, content filtering.*

We live in the world where every second person is a city dweller. Cities play a leading role in the global economy, and this trend will only increase over time. The main driving force of socioeconomic development is the latest technology. Nowadays, major cities including Moscow are being transformed into “smart cities” which means integration of information technologies into the most important social spheres – healthcare, education, housing and utilities, law

enforcement, traffic and transportation for better interaction between city officials and citizens and the optimization of city operations. No less acute is the question of the potential benefits of innovative technologies in the cultural sector.

One of the most prospective and powerful tools for implementing the strategy is the use of Big Data. There is abundance of information about Big Data in mass media, now and then the term flashes in the news, on social networks, various kinds of educational, business and entertainment websites. However, there is still quite a lot of confusion about what it actually means. The truth is that the concept is continually evolving and being reconsidered. In general terms, Big Data represents the information assets characterized by an enormous volume, velocity and variety requiring specific technology and analytical methods for its transformation into value. Big Data is the driving force behind many ongoing waves of digital transformation, including artificial intelligence, data science and the Internet of Things [4].

We can notice its attributes on the streets of Moscow every day. For instance, electronic scoreboards are installed along roads to inform drivers about the current traffic and parking situation. With the introduction of Moscow Intellectual Traffic System, the number of accidents on the roads of the capital decreased by 50% [3]. Another example is an automated system for accounting for resource consumption, which collects, processes, transfers and stores data on hot water consumption in 13,500 blocks of flats and 4,050 organizations, allows to remotely monitor power consumption and troubleshooting and to identify the difference between the normative and actual values [2].

According to the results of applying Big Data in Moscow, the technology is one of the most productive and relevant ones. It brings about many improvements to the city, including:

- increasing the capacity of the city infrastructure (water supply, electricity, traffic, parking, etc.);
- maintaining safety and preventing crime;
- reducing negative impact on the environment;
- improving the quality of municipal services;
- involving people in city management [1].

Another way through which Big Data analytics may have a positive effect on citizens' lives and the economy is through the cultural sphere. The technology may potentially develop the structure of cultural policies and help to monitor them by providing new opportunities for measuring the economic and

cultural value of activities and using the obtained data to improve the strategies and policies. A parallel may be drawn with tracking individuals' online cultural consumption patterns which have already provided better understanding of individuals' behaviour and informed providers of cultural content in their marketing strategies. Similarly, by collecting and analysing information about cultural activities and services, Big Data analytics may present new tools to achieve such critical purposes as updating the planning of the local cultural offer, integrating and facilitating different cultural consumption patterns and addressing socioeconomic obstacles to the access of cultural activities [5, p.14-15].

However, many people are worried about certain effects of using Big Data on the culture of information consumption. Now all large companies collect data about consumers. Companies analyze a huge flow of information about the communities which an Internet user visits, kinds of content he/she is interested in. Based on this, a digital portrait of the user is formed and if there is a match between your portrait and the portrait of the target audience, the product will be offered to you.

Moreover, based on your previous online activities, your feed on social networks is modified: a prioritized order of seeing news, new recommended communities with a similar theme are manifestations of content auto-selection which a user cannot avoid. The service of personalized recommendations embedded in web browsers is based on the same principle. As this approach develops, each person might find themselves in a kind of an "information shell". It means there is little diversity of information provided to the users while content filters pass an extremely narrow scope of information on to them. This is likely to have a negative impact on users' culture of information consumption, narrowing their horizons and standardizing their mind while targeted advertising might lead to consumerism taking even deeper root.

To summarise, it should be noted that there are two sides of the same coin. Data collection and analysis in many ways help humanity to make living in cities safer and more comfortable, solving many current social issues and helping cultural sphere to improve. However, with regard to content filtering, opinions differ. Targeted information offers are certainly convenient to people in terms of saving time and effort. On the other hand, the system of information auto-selection raises a lot of questions concerning privacy and the individuals' freedom to receive all available information on the global network and to select the information on their own.

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THE IMPACT OF TOURISM ON THE INTERNATIONAL ECONOMIC RELATIONS

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Abstract: *The article describes some aspects of the impact of tourism on economic relations. The article reveals the main concepts, describes the factors affecting tourism, provides budget statistics of countries, as well as reveals the advantages and disadvantages of tourism and touches on the topic of tourism in Russia.*

Key words: *Tourism, impact of tourism, international economic relation, benefits, drawbacks, stereotypes.*

Tourism is associated with rest, new impressions, and pleasure. Also, tourism is distinguished with the purpose of rest, studying of culture, public, sports, economic and political tourism, too.

Tourism is very significant in the development of social economy. Things that people are interested in are income sources that have a great role in the international commerce.

International economic relations are relations between governments and states in the field of economics, transnational corporations and other subjects of the whole world economy. It includes various relations: financial, monetary, labor, trade, industrial [4].

There are some factors that affect the number of tourists. First of all, the climate. Secondly, the development of tourism in the region of the world is facilitated by physical and geographical factors, or by natural conditions. These include natural, recreational and aesthetic resources. This fact is very important for the tourist business that specifically attracts people to their place of destination. If the place of area has a remarkable history, people would like to see it.

Tourism also has a big impact on the structure of the country's economy. For example it concerns Spain. The main locomotives of the Spanish economy are currently export and tourism. 3% brings agriculture, 14% brings industry and almost 83%, are accounted in the service sector. The tourism industry development is directly affected by the transport accessibility and infrastructure [5].

Tourism industry has some advantages and disadvantages. Nowadays tourism industry is one of the largest sectors of the world economy. Tourism can help to get out from the international isolation. The Republic of Cuba, has launched a policy of openness from tourism [3]. Moreover, various political events and conflicts influence on tourism strongly. Tourism influences on economic growth, so it is very important that countries cope with various crises and international conflicts. If the state aspires to be represented on the global arena and to promote a certain system of values, they can export ideas by tourists.

There is a negative impact on the economy, too. One of the disadvantages of tourism is its influence on the national budget. Also, Income requires investment for developing. It concern the protecting of tourists. Also, the seasonality is one of the significant shortcomings of international tourism [2].

Also, there are some stereotypes about Russia. Russians were considered being angry people who always played balalaika and drank vodka and there were bears in the street. After some time, extreme tourists went to the country

and realized that all of these stories were myths. Russia today has formed a stream of the tourists from all over the world [1].

In conclusion, the development of tourism has positive and negative aspects: it ensures the inflow of foreign currency, helps solve local employment problems, stimulates the development of the transport network and infrastructure of the region, recreational potential.

At the same time, the rapid development of this sphere of services exacerbates the contradiction between its scale and the damage caused: there is a certain reduction of food resources, water supplies, and the pollution of the environment for the local population.

Therefore, while optimizing the development of this sphere, it is necessary to take into account the world experience, usage of modern methods of the environmental protection and other measures of economic balance.

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LA TRANSFORMACIÓN DIGITAL EN EL SECTOR BANCARIO DE COLOMBIA

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Abstract: *This article provides insight into the role of digital technologies in the banking sector. More specifically, it analyses the changes in the quantity of bank-application users and gives examples of the ways globalization can affect banks.*
Key words: *digital transformation, online banking, electronic devices, applications.*

En el contexto de la globalización y digitalización en Colombia se han elaborado políticas públicas desde diferentes frentes (como Gobierno Digital, Industria TI y otros). Hoy en día, uno de los destinos más significativos es la transformación digital del sector bancario.

Según numerosos estudios, la banca de Colombia es una de las más sólidas e innovadoras de los sistemas bancarios en Latinoamérica. Este sector se caracteriza por estar a la vanguardia de la tecnología, lo que a su vez permite simplificar los procesos para los clientes mientras intenta mantener altos estándares de seguridad. Y esto lo respaldan las estadísticas: en 2016 aquí nacieron casi 40 innovaciones digitales. En 2017 cerca del 52% de las personas tuvieron acceso a los bancos por medio de dispositivos electrónicos [5]. El resto de 48% visitan las sucursales físicas o los bancos.

Además, los investigadores observaron que durante 6 años el número de usuarios de la banca electrónica aumentó casi al doble: desde 9.1 millones en 2010 hasta 15 millones de personas en 2016. En 2010 el 41% de todos los usuarios de Internet utilizó la banca electrónica, mientras que después de 6 años su número alcanzó 53% [2]. También se notó que la bancarización digital disminuye con la edad, por eso la población entre 16-24 años representó el 39% de todos los usuarios de aplicaciones bancarias en 2016.

Entre los factores que han impulsado la banca online están la reducción de costos, la potenciación de habilidades de los empleados, el combate contra el fraude y la mejora del servicio al cliente. Además, aproximadamente el 30% de los costos operativos de un banco están asociados a la red de oficinas [4] y un proceso de transformación digital debe permitir reducir el número de sucursales al 10% del tamaño actual.

El cliente es móvil y por eso debe ser el foco de atención de los bancos. Es decir, la digitalización es una manera de recuperar la centralidad del cliente.

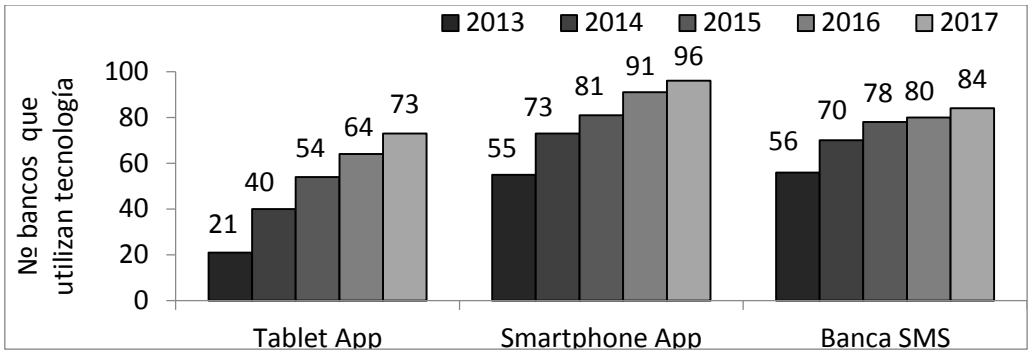
Los ejemplos en esta materia abundan. El Banco de Bogotá ha invertido más de un millón y media de dólares en la renovación de su aplicación de banca móvil. Y hoy cerca de medio millón de sus clientes realizan más de 20% de las transacciones a través de este canal [5].

Otro ejemplo de lo que puede hacer la tecnología de la banca online para los clientes lo tiene Valores Bancolombia, cuyo InvesBot está diseñado para ayudar al cliente a estructurar y ejecutar su portafolio de inversión y también

monitorizar esa inversión. Ello, a su vez, lo hace en base a la información proporcionada, que abarca el capital disponible, el horizonte de inversión y la tolerancia al riesgo [1]. Eso mejora los proyectos de inversión e igualmente facilita la toma de decisiones a los clientes que no son conocedores del mercado.

Según el estudio de Latinia Intelligentia, en 2017 la cantidad de aplicaciones para Smartphone creció un 5,5% (Ver Gráfico 1), sube también la Banca SMS, pero las aplicaciones sobre tabletas y los chatbots son las más utilizadas [3]. La media de servicios financieros en Colombia se duplicó respecto al año pasado.

Gráfico 1. Tecnologías más usadas por la banca



Fuente: Latinia Intelligentia, 2017

En conclusión, debe tenerse en cuenta que las aplicaciones sobre smartphones y tabletas y la Banca SMS van a reinar en este sector. A su vez, se espera un crecimiento muy notable del número de seguidores de la banca online. Sin embargo, una herramienta más avanzada es el Chatbot que es muy popular en Colombia y en el mundo, y podría copar el 30% del negocio bancario en el futuro.

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DIGITAL ECONOMY IN RUSSIA, PROBLEMS AND SOLUTIONS

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Abstract: *The article examines problems and perspectives of the development of digital economy in Russia. Being one of the most important economic issues, digital economy faces a number of difficulties that slow down the process of the development. The author considers the measures that could be taken to help overcome the problems.*

Key words: digital economy; the directions of the development; solutions to the problems.

The term “Digital economy” is becoming more and more popular nowadays. It is used practically by everyone, but the exact notion of the term does not exist. There are two treatments to define digital economy. According to classical approach, digital economy is the economy based on digital technologies and, to put it more correctly, it is only about digital goods and services. According to advanced treatment, digital economy is economic production which uses digital technologies. It includes not only digital goods and services but also real goods and services that are produced with the help of digital technologies.

Digital economy has spread all over the world, and most countries make considerable efforts not to fall behind each other in its development. Russia also attempts to be on a par with other countries and even to become a leader. To achieve the goal our country has worked out the program for the development of digital economy “Digital Economy of the Russian Federation”. It considers such directions as creation of normative regulations for companies, development of education in digital sphere, formation of research competencies and technical

background among Russian citizens, creation of information infrastructure and maintenance of information security [1].

Unfortunately, Russia has a vast number of economic, political and social problems that are the obstacles on the path to the development of digital economy. One of the most important is the fact that most Russian people have a low level of knowledge in computer and the use of the Internet. It is lower than in Europe and, in addition, there is a big gap in digital skills between different social groups like pensioners, teenagers, middle-aged. In our opinion, a possible solution to this problem could be the organization of free courses or on-line lessons that would help people to learn how to use a computer. Also, it would be very effective and challenging to arrange competitions between computer users.

Another difficulty of the development of digital economy is related to education. The problem is that it is hard to find teachers who could provide timely knowledge in digital technologies. One of the main reasons is disadvantageous conditions of teaching such as low salaries, excessive demands and so on, so that almost nobody wants to be a teacher. In addition, our modern world develops so fast that while new specialists are being trained, their knowledge and skills are becoming obsolete, and by their graduation, such professionals turn out to be useless.

One of the solutions to the first part of the problem is raising teachers' salaries. As for the second part of the problem, it could be suggested creating studying conditions that would allow future professionals to apply their knowledge and skills in practice during education. Internship would help them to better learn new material and not to lag behind the evolution of digital technologies [2].

Moreover, it is vital to develop in Russia the production of digital equipment. For digital economy to advance successfully it is necessary to produce not only the means of consumption, but also the means of production which are necessary for the maintenance of reproduction process. It is also very important that these goods are produced inside the country that would make Russian economy more independent. This is also true for digital economy. Of course, we have our own companies making digital equipment, for example, Explay, 3Q and etc., but their production sites are located outside Russia, in countries such as China, Korea and so on. To encourage the companies to return their production on to the Russian territory, Russian government should rationalize fiscal and monetary policy to make the country more attractive for investments and production. This policy would not only make the economy

more independent but also bring more tax revenue and create new work places for IT specialists.

As we can see, Russia has many problems that complicate the development of digital economy and if we don't want to linger behind the leading countries, we must address those issues as soon as possible.

In conclusion we'd like to say that Russia has a lot of work ahead to help develop its digital economy, but we have all good chances to succeed and even overtake the leaders. According to the Digital Evolution Index (2017), Russia is the break-out country that has a potential to develop into a strong agile digital economy. The main thing now is not to miss the chances and move forward overcoming all the difficulties.

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DIGITAL TECHNOLOGIES IN THE BANKING SECTOR

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Abstract: *Without any doubt, modern technologies and innovations play a crucial role in present-day reality. They have become an integral part of our life contributing to introduction of positive changes and improvements. We can't imagine our existence without electronic devices, mobile banking, internet services and other benefits that make our life convenient and pleasant.*

All the factors mentioned above have made the customers and consumers more particular concerning the quality of the service they get. They have become oriented on spending less time on whatever action is implied. They are keen to get new opportunities through implementation of digital technologies in such spheres as banking, ATM services, mobile banking etc.

Key words: *digital technologies, omni-channel, customer satisfaction, Self Service Technology, ATM services, mobile banking.*

Introduction

Digitalization is disrupting banking business models, products, services and customer experiences all over the world. To transition from being digitally disrupted to being redesigned for the digital future, banks need to take a holistic approach to digital, embrace agile innovation.

Moreover, digital transformation is disrupting value chains and transcending the traditional ways of conducting banking. The preference by customers to transact via ATM and online, internet channels over branches or call centers is threatening the status quo of traditional banking business models.

New technologies and the digitization of core banking functions are helping to reduce reliance on brick-andmortar bank access channels. By technologically enabling processes such as check the balance or electronic payment through phone, banks are able to offer access to their products and services regardless of an individual's proximity to a bank branch. Digital transformation targeted at enhancing customer experiences is also increasing the transparency of financial products and services, improving the consumer decision-making process and increasing broader market efficiency.

The Future is Digital Technologies

There has been a great shift from traditional banking to a digital world lately. The concept of digital transformation implies the idea of an Omni-channel approach. That is full integration with the customer from the point of view of its preferences, choices, needs and aspirations. As today's customers are becoming more sophisticated, they expect the same kind of response from banking institutions regarding services they provide.

That is why according to the author of the article, Omni-channel experience has become a key to success. Omni-channel is not the replacement of the previous model, it's a sort of enrichment when customer experience is unified and the services needed are provided at the right time and the right place. This system also implies the idea of a mixture of IT infrastructure and innovative new technologies to drive top as well as bottom lines upwards. An Omni-channel strategy combines all key parameters including online and offline channels, data and technology customer behavior and experience [2, p. 7-8].

It should be mention that providing customer with precise transaction processing ability still remains critical, banks should rethink the way customers are being valued.

Jim Marous believes that new technologies are likely to change the once staid banking industry. The analysis of the data received has changed the way customers are viewed and the introduction of mobile devices has altered the way customers access their banks. A new wave of digital technologies is likely to change the way banking services are delivered to their consumers. These technologies include:

- artificial intelligence;
- the internet of things;
- blockchain;
- open banking platforms;
- robotic process automation.

It is clear that increased efficiency, decreased costs and enhanced customer experience will result in disruption of the way people used to do their banking. Digital technologies open a new perspective for the banks to win the battle of becoming "the bank of the future" [4, p. 2].

Chowdhary shares the same opinion that information technology has changed the existing banking reality. The idea of more flexible payment method and the development of more efficient financial services has become a key issue of the reality.

Due to implementation of new technologies banking has become easier and more customer-friendly. Revolutionary developments in information and communication have had a major impact on individuals and companies. Internet banking as well as mobile banking contributed to customer satisfaction and retention. Total office automation allowed to process large amounts of data and to check targeting operations.

The author gives an example of rapidly developing information technologies and their introduction into the Indian banking sector. It is specially noted that digital technologies affected all products and services of electronic banking in India.

Thanks to the support of the Reserve Bank of India in the development of electronic banking, the Indian banking sector has progressed rapidly. However, due to low awareness of customers about internet technologies, such innovations are often ignored. Therefore, banks need to focus on automating the front office and CRM (customer relationship management) [1, p. 10].

Customer Satisfaction

Much attention is given to the appearance of ATMs and other forms of banking services has accelerated the requirements of banks to ensure quality of

service to meet the needs of customers. The idea of reliability and responsiveness of the ATM services has acquired particular importance in providing efficient and effective banking services of high quality.

Self Service Technology (SST) is an indispensable feature in the retail banking. SST is ready to provide an alternative for banks from the point of view of catering withdrawal and deposit of cash.

The text gives a valuable information on four key elements of service quality including consistency, dependability, timeliness and technology form the point of view of their influence on customer satisfaction. The results obtained will encourage managers to improve the ATM services and to expand the existing system of retail banking services in Malaysia [3, p. 16].

The need for service quality improvement in banking industry is debated issue, which has undergone a serious change lately due to changes in technology and government regulations.

Within the article the author proposes a conceptual framework examining the role of trust in correlation with three main quality factors as information, system and service qualities that effect customer satisfaction in mobile banking.

Mobile banking is used to perform banking services as transferring money, checking account balance and paying bills. Mobile banking has become an integral part of our life. Since it is not related to spatial and temporal constraints, it can be enjoyed at any time and any place [5, p. 713].

To my mind, the convenience of the service is the greatest attraction of mobile banking and it is widely used not only in developed countries but also in the developing world. To adapt mobile banking the customers need to build trust to assuage perceived risk. That is why the idea of building trust between the customer and the bank has received considerable attention as this factor has a great influence on customer satisfaction.

Conclusion

In my opinion, new technologies give us extended possibilities that are widely used by companies in various spheres. Banking services are not an exception. Collectively, these technologies provide opportunities to:

- Better serve customers and increase access
- Provide enhanced insights both from a risk management and customer service perspective
- Increase agility and speed to market
- Strengthen operations and controls
- Transform institutional cost structures

They recognize changing realities of the time and are ready to provide their customers with new services that take into account increasing demand for higher quality, time management and implementation of digital innovations.

To sum up, it is necessary to point out that implementation of new technologies and innovations has changed our life dramatically and given it new understanding. Customers have become more quality-oriented. They are not ready to spend much of their time on everyday routine like payments, banking etc.

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ENTWICKLUNG DES IPO-MARKTES

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Dieser Artikel informiert über Wirksamkeit des IPO-Prozesses in der modernen Welt. Es werden die positiven und negativen Aspekte des Börsengangs, die Risiken, die Perspektiven für die Entwicklung des IPO-Marktes in Russland sowie die Dynamik und Besonderheiten des Eintritts russischer Unternehmen in Börsen betrachtet.

Schlüsselwörter: *IPO-Markt, Börse, Kapitalisierung und Bewertung des Unternehmens, Emission.*

Für die Wettbewerbsfähigkeit des Unternehmens ist es notwendig, ein stabiles Entwicklungstempo beizubehalten, das möglicherweise auf die Kapitalerhöhung und die Ausweitung der Produktion zurückzuführen ist. Um Liquidität und Erneuerung des Anlagevermögens zu unterstützen, sind Unternehmen gezwungen, Kredite aufzunehmen. Die Verbesserung der Marktstruktur bietet jedoch eine Reihe von Alternativen, von denen die häufigste das öffentliche Angebot von Aktien von Unternehmen ist. Mit dieser Strategie erhöht das Unternehmen nicht nur sein Kapital, sondern auch sein Anlage-Rating und wird in den Augen potentieller Investoren attraktiver. Nach der Definition der New Yorker Börse IPO (Initial Public Offerings) - ist die Ausgabe von Aktien, die von Unternehmen durchgeführt wird, um den Status einer Aktiengesellschaft zu erwerben. Insgesamt beinhaltet die IPO drei Parteien - Unternehmen, Investoren und die Emissionsbank.

Ein Börsengang erfordert eine Bewertung des Unternehmens. Es wird hauptsächlich auf zwei Arten durchgeführt: Vergleich und Diskontierung der Cashflows. Letzteres wird verwendet, wenn es unmöglich ist, eine ähnliche Aktiengesellschaft auf dem Markt zu finden.

Eines der häufigsten Probleme des IPO ist Unterschätzung, aufgrund der Asymmetrie des Informationsfeldes sowie das Phänomen der „Black Swan“, mit anderen Worten, Risiko, Unsicherheit, so dass die Anleger Aktien zu einem niedrigen Preis kaufen. Analystenschätzungen und aufgeblasener Optimismus der Anleger sind auch wichtige Faktoren für Aktienkurs des Unternehmens [1].

Vorteile umfassen: langfristige Kapitalbeschaffung und Zugang zu Investoren im Ausland; Erhöhung der Kapitalisierung und Bewertung des Unternehmens; keine Notwendigkeit, Gelder an die Anleger zurückzugeben; Verbesserung der Kreditwürdigkeit und des Status des Unternehmens; Fehlen von kurzfristigen Verbindlichkeiten; Erhöhung der Liquidität der Aktien der Gesellschaft, die als Sicherheiten für die Kreditfinanzierung dienen können. Zu den negativen Seiten des IPO-Prozesses gehören: die Verwässerung des Kapitals aufgrund der Entstehung neuer Aktionäre, keine Garantie für eine erfolgreiche Notierung an der Börse und Unvorhersehbarkeit der Marktreaktion, Pflicht zur regelmäßigen Veröffentlichung von Berichten, die Notwendigkeit, die Handlungen mit den größten Anteilseignern zu koordinieren.

Emission von Wertpapieren und der Börsengang ist bei Unternehmen auf der ganzen Welt sehr gefragt. Zum Beispiel, Financial Times zeigt eine

Zunahme der Zahl der IPO-Transaktionen im Jahr 2017 [2]. Dann registrierten 1.700 Unternehmen die Emission von Primärpapieren, was um 44% mehr ist als im Jahr 2016. Die Einnahmen beliefen sich auf rund 196 Milliarden US-Dollar. Dies ist ein Rekordwert im Zeitraum ab 2014, als die Einnahmen durch die Notierung von Alibaba in Höhe von 25 Milliarden US-Dollar gesteigert wurden.

In den USA verdoppelten die Unternehmen ihre Zahl von 24 auf 49 Milliarden US-Dollar, nach Expertenmeinungen war das Jahr 2016 das unprofitabelste Jahr seit mehr als 10 Jahren. Was die europäischen Angebote betrifft, so sind sie im Durchschnitt um 40% im Vergleich zum Vorjahr gestiegen. In China wird laut Ernst & Young im Jahr 2017 ein Rekord aufgestellt: Über 400 Unternehmen wurden auf den Märkten des Festlandes platziert [3]. Führende Analysten von Banken wie UBS und JPMorgan sagen voraus, dass 2018 möglicherweise für IPO-Geschäfte fruchtbar sein wird und nach verschiedenen Schätzungen mehr als 10 Milliarden Dollar einbringen kann.

Zwischen 1996 und 2018 haben die Unternehmen in Russland aus einer Vielzahl von Branchen, wie Industrie, Transport, Einzelhandel, Pharma usw. IPO gemacht [4]. Doch in der Struktur in den letzten Jahren in der betrachteten Periode gibt es einen deutlichen Anstieg in der Anzahl der Unternehmen im Dienstleistungsbereich, einschließlich Finanzdienstleistungen (Moskauer Börse, Qiwi Plc, Moskau Credit Bank, TCS, FG Zukunft, etc.), sowie Telekommunikation und Medien Technologie (Yandex, Luxoft, EPAM Systems etc.) Der Gesamtbetrag der aus der Erstplatzierung von Unternehmen für den betrachteten Zeitraum abgerufenen Mittel belief sich auf über 83,6 Milliarden Dollar.

Auf der Grundlage der durchgeführten Untersuchungen und der überprüften Daten können wir feststellen, dass der IPO-Prozess für viele Unternehmen sowohl in Russland als auch im Ausland unstreitig attraktiv ist.

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METHODS OF ASSESSING BEST ESTIMATES OF TRANSITION MATRICES FOR CREDIT RISK PURPOSES: A REVIEW OF THE LITERATURE

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Abstract: *This paper reviews the literature on methods of calculating transition matrices based on credit portfolio data. Several authors proposed methods of calculating transition matrices without any corrections, while other employed algorithms which modify initial matrices. To date, the problem of transition matrices has become more relevant due to changes in regulations which require using more accurate estimates of the matrices. Here we analyze evolution of procedures which are used for estimating transition matrices of credit ratings. We conclude that process of transition matrices assessment needs further development in order to enhance accuracy of credit risk assessment.*

Key words: *transition matrices, credit risk, credit portfolio, credit ratings.*

Transition matrices are widely used to explain the dynamics of changes in credit quality. Their estimation requires meticulous data collection about each asset during long period of time. However, regulators and external analysts are usually unable to get the detailed information about such transitions without performing throughout analysis. This raises great technical challenges when sufficient default data are not available, as is the case for low default portfolios. This paper aims to discuss various methods of calculating transition matrices and review recent approaches to enhancing their ability to reflect credit quality. The main focus of this paper is to analyze the research results, rationale of the problem: "Robust estimates of transition matrices under conditions of lack of data".

One of the most popular and comprehensive method of calculating transition matrices when the lack of data is faced is applied by Jones M.T. in the paper "Estimating Markov Transition Matrices Using Proportions Data: An Application to Credit Risk" (2005) [2, p. 1–25]. In his paper he employs generalized least squares method for calculating the matrices using aggregate proportions data. Moreover, the author applies the methodology to the real data for the United States. Apart from that, the author proposes using conditional

transition matrices for predicting future credit quality of economic agents. Although the author states that the performed algorithm of the assessment is perfect, he concludes that gained transition matrices remain unstable during economic cycle. It should be noted that in theory credit-transition matrices should reflect average likelihoods of transitions, so the practical results of his research do not meet the theoretical assumptions.The problem of biased results for asymmetric data is raised by Christodoulakis G.A. in his paper "Markovian Credit Risk Transition Probabilities under Non-Negativity Constraints for the US Portfolio 1984-2004" (2006) [1, p. 1–17], as well. In this paper the same data is analyzed, however the author employs different approach: he uses Bayesian perspective and uses Monte Carlo Integration for the gained probability density. The author states that his approach outperforms the one of Jones (2005). What is more, in-sample forecast evaluation statistics reveals that the resulting estimator has a tendency to overpredict a bit for non-performing loan proportions and underpredict for performing loans. The result of the author's work is preferable for asymmetric loss functions. Apart from that, the author managed to solve larger size problems using the proposed approach.

The issue of unseen factors which affect transition matrices of credit rating is covered by Kim Y. and Sohn S.Y. in their paper "Random Effects for Credit Rating Transitions" (2008) [3, p. 561–573]. The authors apply multinominal-Dirichlet regression model and proposed using random effects model. The transition matrices calculated with a use of random effects model tends to be less diagonal than the ones which are calculated based on fixed effects model. Less diagonal matrices are more conservative and, as a result, may be preferable for regulators. However, the suggested model endures some difficulties. For instance, it is invented for Korean market and, as a result, should be validated for other markets before using.

The question of gaining less diagonal, or smoothed, transition matrices is explored by Zhang J., Avasarala V. and Subbu R. in their paper "Evolutionary Optimization of Transition Probability Matrices for Credit Decision-Making" (2010) [5, p. 557–567], as well. They aim to get structurally stable matrices. In their paper they suggest an approach which poses calculating and smoothing one-year transition matrices as a constrained optimization problem. The authors apply such population-based evolutionary algorithms as differential evolution and particle swarm optimization. The suggested schema of smoothing transition matrices performs quickly and gets more accurate results then the regarded by the authors cohort method. However, the proposed algorithm requires

Markovian and time-homogeneity assumptions, which are rather strict for practical usage.

As a result of technology development, more sophisticated approaches are applied for transition matrices calculations, especially in solving problem of large scale. One of such methods is employed by Lerspipatthananon W. and Charnsethikul P. in their paper "Using Column Generation Technique to Estimate Probability Statistics in Transition Matrix of Large Scale Markov Chain with Least Absolute Deviation Criteria" (2014) [4, p. 331–338]. The authors regard the assessment problem as a Linear Programming Problem (LP) and, consequently, suggest applying Column Generation technique to solve the issue of large scale LP and implementing Least Absolute Deviation method for assessing transition matrix. The proposed method shows acceptable accuracy and maintains computational stability which indicates possibility of its practical implementation. However, the authors use simulation data which does not enable to check its real potential and possible downsides.

Credit risk transition probabilities between aggregate portfolio classes constitute a very useful tool when individual transition data are not available. The Basel II Accord requires to establish rigorous statistical procedures for the estimation and validation of default and ratings transition probabilities. However, under several circumstances analysts and regulators face deficiency of data and, as a result, sophisticated methods of calculating transition matrices should be applied. This paper overviewed the chronological development of transition matrices calculation. Generally reviewed papers strive to get more conservative estimate of the transition matrices which is higher than the real one, but nowadays regulators require to assess unbiased credit risk estimates. As a consequence, it should be noted that the assessment models should be further developed to meet the regulation requirements.

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THE FORMATION OF CULTURAL STEREOTYPES IN THE YOUTH ENVIRONMENT

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Abstract: *The article describes different key aspects of stereotyping in the youth environment. This research points out the main ways of forming ethno-cultural stereotypes, such as news , TV-programs and movies.*

Key words: *culture; stereotyping; youth environment; cross-cultural interaction; ethnic strife.*

In our everyday reality, we are constantly confronted with predetermined ideas about other cultures and ethnic groups, although often we do not even realize it. This phenomenon is called stereotypes.

Receiving information from the outside world and refracting it through the prism of perception, people are more inclined to trust those facts that are confirmed by usual, established views. Ignoring or belittling the significance of these data, which contradicts the views of a person or does not fit into his views is a kind of self-deception, a tool of self-defense against all new and unknown [1]. Nowadays the mass media are one of the sources of formation of stereotypes, including cultural ones. Undoubtedly in modern Russian society there are objective prerequisites for the emergence of intolerance towards other ethno-cultural groups, such as migration and terrorism [4]. At the same time, the mass media often intensify xenophobia, form negative ethno-cultural stereotypes among young people, instead of cultivating tolerance in them. As a result, certain stereotypes and even phobias in relation to natives from the Caucasus, Transcaucasia, from the republics of Central Asia and Ukraine are fixed in the

consciousness of people. Also, there is a tendency of consideration by mass media of social and political problems in an ethnic context [2]. In addition, television programs, articles in magazines contain sweeping generalizations about the features of a national character or about the way of life and behavior of representatives of various ethno-cultural groups. These factors contribute to the development of xenophobia, that is, they form the image of "stranger" and "enemy". It should be noted that the mention of various ethnic groups in an offensive context, for example, in anecdotes about different nationalities and races, adversely affects the dialogue of cultures. Obviously, foreign mass media also form stereotypes about the Russian culture among the population, it also happens on the Internet on popular sites. On the other hand, the positive influence of the media on the interaction of cultures should be noted. For example, such a channel on YouTube as "Italians" by Kuzno Productions destroys stereotypes about Russia, acquaints Italians with genuine Russian traditions, invites them to visit our country and judge by themselves [3]. As we have seen, the mass media can create a stereotypical type of culture, based on the standards of mass culture, which are characterized by efficiency, aggression, anonymity. At the same time, the mass media can also help to overcome national prejudices, propagandizing tolerance.

There is another way of creating cultural stereotypes. It is getting more and more popular to watch films and series in the youth environment. That is why a lot of stereotypes we get from them. For instance, Russians are always shown as gangsters. Moreover, there are many films that picture the majority of Russian people living in poverty and constantly speaking about the war against the USA. Even such a modern film as "Snowden" is full of cultural stereotypes- we can find them even in the flat design of the main character-e.g. the samovar on the table, etc. Nevertheless, Russia gives tit for tat and uses stereotypes in cinematography. In a lot of films American people are very aggressive and, undoubtedly, the most common cliché about the citizens of the USA- they are forever eating fast food. So the top box-office Russian film –"Moving up" creates a reversed image of the Americans- teenagers are very stupid and have a behavior of little children, and members of a basketball team are shown like very crafty person and they use different dishonest tricks.

To summarize, in our modern world of the information society a great role in the ethnic stereotyping is played by the media. Art, education and family have an impact on this process too. Due to a distorted understanding of the nature of ethnicity, the properties of individuals and events are accepted for the

properties of all members of a given ethnic group or of all ethnically marked social situations. Thus, the formed ethnic stereotypes in the youth environment significantly impede intercultural communication. Often they are the cause of the emergence of ethnic strife. Therefore, the core task of mass media and other ways of modern communication is the “fight” against stereotypes and not their imposition.

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BITCOIN UND CO. ALS STABILITÄTSANKER DER WELTWIRTSCHAFT

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Annotation: *Die Unabhängigkeit von politischen und wirtschaftlichen Krisen ist die entscheidende Stärke der digitalen Währungen. Folglich können digitale Währungen dazu beitragen, unser Wirtschaftssystem zu stabilisieren, da insbesondere in Krisenzeiten Bitcoin und Co. als flexible Alternativen dafür sorgen können, um den wirtschaftlichen Austausch sicherzustellen. Digitale Währungen sollen von Staaten nicht bekämpft, sondern als Anker der Stabilität angesehen werden.*

Schlüsselwörter: *digitale Währung; Bitcoin; Notenbanken; Stabilität für Unternehmen und Konsumenten; komplexe globale Interdependenzen.*

Wir beginnen unseren Artikel mit der Frage: was hat zum Erfolg von Bitcoin und Co. entscheidend beigetragen? Das sind weniger Vorteile der digitalen Währungen, sondern vielmehr Probleme der globalen Finanz- und Notenbankpolitik. Die Schulden in den westlichen Industrienationen sind so hoch wie nie und gleichzeitig sind sämtliche, seriöse Instrumente der

Notenbanken aufgebraucht. Angesichts der Schuldenstände ist seit der Krise in Griechenland jedem klar, dass ohne einen Schuldenschnitt, praktisch keine andere Notenbankpolitik möglich ist. Die Gefahr, die dabei von einer derartigen Notenbankpolitik ausgeht, ist nur wenigen bewusst [3].

Nachdem der Ankauf von Staatsanleihen nicht die erhoffte Wirkung gebracht hat, werden nun von der Europäischen Zentralbank Unternehmensanleihen aufgekauft. Die Gefahr einer Blasenbildung und unkalkulierbaren Preisverzerrungen an den Märkten nimmt damit deutlich zu. Noch dramatischer als die Gefahren dieser Politik sind die Auswirkungen auf das Vertrauen gegenüber der europäischen Währung, dem Euro. Wenn nun unsere Währungshüter von den Staaten dazu gedrängt werden, jede makroökonomische Seriosität über Bord zu werfen, dann geht dies mit einem massiven Vertrauensverlust gegenüber der europäischen Gemeinschaftswährung einher. Aber auch die japanischen und amerikanischen Notenbanken haben längst eine stabilitätsorientierte Notenbankpolitik aufgegeben [3].

Was ist die Konsequenz dieser globalen Abwertungsspirale? Unternehmen, Investoren und private Haushalte suchen nach vertrauenswürdigeren Alternativen. Dies können, zum einen, Staaten mit einer soliden Finanz- und Notenbankpolitik oder politisch respektive staatlich unabhängige Währungen, wie eben Bitcoin sein. Die Unabhängigkeit von politischen und wirtschaftlichen Krisen, der Brexit ist das beste aktuelle Beispiel, ist die entscheidende Stärke der digitalen Währungen. Die Flucht in digitale Währungen zeigt sich in der positiven Korrelation zu Krisen. Nach dem Brexit-Votum stieg der Bitcoin Kurs [2].

Folglich können digitale Währungen dazu beitragen, unser Wirtschaftssystem zu stabilisieren, da insbesondere in Krisenzeiten Bitcoin und Co. als flexible Alternativen dafür sorgen können, um den wirtschaftlichen Austausch sicherzustellen. Ein Beispiel stellen Argentinien, Venezuela und andere Länder, welche mit hoher Inflation zu kämpfen haben, dar. Digitale Währungen können die nötige Stabilität für Unternehmen und Konsumenten gewährleisten, die durch die Inflation geraubt werden. Länder, die mit einer starken Abwertung der eigenen Landeswährung gegenüber anderen Währungen zu ringen haben, könnten durch die Nutzung digitaler Währungen ihren Import sicherstellen.

Was bedeutet das für die Weltwirtschaft? Digitale Währungen sollen von Staaten nicht bekämpft, sondern als Anker der Stabilität betrachtet werden. Insbesondere Länder, die zu einer instabilen und inflationären Währungs- und

Geldpolitik neigen, sollten überlegen, ob es nicht vielleicht sinnvoller wäre "zweigleisig" zu fahren. Der Wettbewerb zwischen den digitalen und den nationalen Währungen könnte dazu führen, dass Notenbanken wieder stärker dazu gezwungen werden, eine stabile Notenbankpolitik zu verfolgen [1].

Anhand des Artikels wollen wir Schlussfolgerungen ziehen. Neben der binnenwirtschaftlichen Stabilität können Staaten durch Berücksichtigung digitaler Währungen den Handlungsspielraum an den internationalen Finanzmärkten gewinnen. Russland und die Arabischen Emirate verbrennen zurzeit enorme Summen an Währungsreserven, um ihren Staatshaushalt zu finanzieren, da die Einnahmen durch Öl und Gas massiv eingebrochen sind. Entsprechend hart trifft es dann einen Staat, wenn er dazu gezwungen ist, eingebrochene Einnahmen durch den Verkauf einer immer weniger werthaltigen Währung zu kompensieren. Würde der Staat nun einen Teil seiner Währungsreserven in Bitcoin parken, so könnte er sich den im Zweifel besseren Bitcoin / USD Wechselkurs zu Nutze machen. Vielleicht kann eine monetäre Vielfalt einen Beitrag dazu leisten, globale Interdependenzen abzufedern – mal sehen.

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INDUSTRY 4.0'S IMPACT ON THE LABOUR MARKET OF THE RUSSIAN FEDERATION: PROBLEMS AND PROSPECTS

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Abstract: *The article provides a review of the current technological trend referred to as Industry 4.0 and analyses its impact on the structural changes of the labour market and staffing requirements. The resulting new challenges to the economy and society of the Russian Federation are explored.*

Key words: *labour market, the Internet of Things, the Industrial Internet of Things, Industry 4.0, computerization.*

At present, the successful development of a nation's economy, general performance of a nation and a country's role in the international community depend on its technological advancement in manufacture and management, its ability to follow the current technological trend. Now that many developed countries have progressed into digital economy, the Fourth Industrial Revolution (Industry 4.0) has already begun.

Adopting Industry 4.0 means transition to a fully automated production, controlled by interactive intelligent systems in real time. Introducing the Internet of Things (IoT) is one of the methods of transition to the modern manufacture and economy. The IoT is a network of intelligent devices that collect huge amounts of data then sent to a central cloud-based service where the data is aggregated and shared with the end users in a helpful way. The Industrial Internet of Things (IIoT) is capable of providing a direct link between production sites and processes. This system guarantees improvement in manufacture, minimizing failures and overload. Exclusion of the human factor in manufacture results in almost eliminating the quantity of faulty goods [2].

Obviously, introducing the IIoT will influence employment. Structural changes in the labour market may well entail disappearance of traditional professions in Russia. The IIoT devices acquire all the knowledge and skills needed in production much faster than human beings. What is more important, they are able to optimize the production processes by searching for the most efficient technology in the network. That is why enterprises and companies will have lower demand for similar human skills. Moreover, the costs of maintaining the IIoT devices are lower than staffing costs. Hence, the number of personnel in industrial enterprises may soon be reduced.

However, not only the industrial sector is subject to computerization and, as a result, changes in employment. The trend has an effect on the service sector too. Studying the top ten job-losing subsectors in the USA (Fig.1), one of the leading countries in the innovation sphere, we can see that in the past seven years from 2011 to 2017 the velocity of losing jobs because of computerisation was faster in the service sector than in manufacture.

Fig.1. Top ten job-losing subsectors in the USA [4].

To illustrate this trend let's consider a driverless car launched by Google. The innovative car provides high level of safety and can reduce some infrastructure problems such as the quantity of cars or parking places. But it will eventually lead to a lot of people, like engineers, taxi-drivers, advisors, insurers losing their jobs [3].

On the other hand, with the enormous velocity of the creation and integration of new technologies into the economy, such jobs as biotechnologist, genetic consultant, developer of cyber-tissues, "smart house" designer, eco-analyst in construction, personal safety designer, personal growth tutor are becoming increasingly relevant. As opposed to the obvious advantages of robots in doing routine and standardized work, the main criteria of the competitiveness of a person in the labour market are going to be creativity, non-standard thinking and analysis ability [1].

There are some factors, however, that might hamper Russia's fourth industrial revolution. They are the huge size of the country, the imperfection of education system, strong social differentiation, low levels of computer and financial literacy, population activity and poor infrastructure. The social system is known to change more slowly than industrial and technological ones.

Nevertheless, these are important problems which have to be solved immediately. Otherwise, the inability to implement the achievements of Industry 4.0 will leave the Russian Federation in a lagging position.

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BARRIERS IN EFFECTIVE INTERCULTURAL COMMUNICATON

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Abstract: *The article describes some aspects of problems, contradiction and confrontation in intercultural communication. The article provides an explanation as to the problems between different cultures . In the article the authors put forward the best approaches to breaking intercultural communication* barriers.

Key words: *barriers; intercultural communication problems; language differences; body language; low-context and high-context cultures.*

Communication in itself is a difficult process, but when you come across a mixture of cultures, the number of ‘disturbing’ factors gets so large that it is astonishing that we manage understand each other . It should be noted that even within the same culture, communication isn't always easy. Spouses get divorced, friends fall out and workers change jobs and all these problems often arise due to misunderstandings. If you add cultural differences, the sources of potential problems multiply. An awareness of the barriers to intercultural

communication is the first step in overcoming the problems. ‘Barriers’ are any obstacles or difficulties that come in the way of communication. We often have to deal with the barriers, raised by interpersonal relationships between individuals, groups and cultures. Effective communication with people of different cultures is especially challenging. Cultures provide people with ways of thinking—ways of seeing, hearing, and interpreting the world. Thus the same words can mean different things to people from different cultures, even when they talk the “same” language [3]. As a result, language differences are an obvious barrier to intercultural communication. If you speak only English and a shopkeeper speaks only Japanese, you won't be able to communicate verbally. Even if you've studied the language or an interpreter is available, dialects, different accents and slang can cause problems. Often, parties have a third language in common; in business this is often English. Using a third language with both parties not knowing much of the cultural context of their conversation partner, misunderstandings are very common. Of course, a way of avoiding these language difficulties is to use the services of an interpreter – this is often the only practical solution in many international business situations. But this option is not without its problems: when messages are relayed through several people, there are more opportunities for miscommunication. This may happen when the interpreter is familiar with the languages being used, but is not so knowledgeable about the business terms and jargon used for that particular business activity [1].

Each culture also has its own rules about proper behavior which affect nonverbal communication. People sometimes take offense because of differences in body language across cultures. For example, a businessperson from Latin America might stand closer to a client than someone from North America would. This may make the North American feel crowded and want to back away. People from the southern Europe typically use more eye contact than Britons and Americans, which may make English-speakers uncomfortable. Sometimes Americans think that the French aren't friendly, because they typically smile less than Americans [4]. There are also culture-specific restrictions on the communication between genders or between age groups. Unintended breaches of etiquette and behavioral norms can inadvertently send a wrong signal. Not all cultures think about time in the North American linear fashion. In the U.S., punctuality is important, but Latin and Middle Eastern cultures put a higher value on relationships. For example, you wouldn’t finish your conversation with someone even if it made you late to a meeting. A

culture's view of time also influences how it sees deadlines. For example, North Americans consider making a deadline crucial. People from Asia or South America are more likely to view deadlines as less important than results over the long haul [5].

Moreover, negative aspects in the history of two cultures can interfere with effective communication. Competition for resources, political disputes of past conflicts can create such strong opinions and prejudices that effective communication is impossible. Stereotypes and prejudices about people from other cultures can cause communication problems and give offense. Ethnocentrism, or a belief that your own culture is better than that of others, can lead to acting superior toward other groups and not treating them well [3]. In addition, different cultures regulate the display of emotion differently. Most English-speaking cultures are low-context, meaning they put a message into explicit words. In these cultures, saying "no" when you mean "no" is just considered straightforward or honest. High-context cultures, such as Japan, expect the listener to pick up more meaning from the general situation. For example, Asians sometimes say "yes" or "maybe" when they actually mean "no," according to the Diversity Council. Asians often consider an outright refusal blunt rather than honest. Individuals from the United Kingdom and Japan typically keep a tight control of their emotions, while Italians and French are more comfortable showing their feelings. Loud talking might embarrass an Englishman, for example, but an Italian may just be expressing excitement [2].

All of these differences tend to lead to communication problems. If the people involved are not aware of the potential for such problems, they are even more likely to fall victim to them, although it takes more than awareness to overcome these problems and communicate effectively across cultures. Differences in culture and communication styles can even cause fear [3]. As a result of this anxiety, people from different cultures may pull back and avoid trying to communicate at all, reports Kathy McKeiver, Coordinator of International Student Academic Advising at Northern Arizona University and chair of the Global Engagement Commission of the National Academic Advising Association. Often the question arises concerning whose cultural customs, traditions and practices should have priority in international communications. It is widely accepted that successful communication must be approached from the viewpoint of the receiver rather than the sender, so we must adapt to the cultural customs and practices of people from other cultures when engaging in intercultural communication. To be successful in intercultural

communication, it is important to understand the world, as others see it. We live in a culturally diverse world. People will always encounter individuals from different races, religions, and nationalities. There is often anxiety surrounding unfamiliar cultures. The desire to communicate is the first step in being effective. Cross-cultural training courses can be used to help prepare for international working, and are often available at colleges, universities and through private consultants. People within the organization who have conducted business with other countries/cultures can be valuable resources, as their experience and skills can provide useful information and tips [4].

The final point to stress is that we need desire, information, and the willingness to take interpersonal risks to break barriers. An individual's ability to be open to new ideas and new people will go a long way in the process of cross cultural communication.

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NEGOCIOS DIGITALES EN BRASIL Y SU IMPACTO EN LA ECONOMÍA DEL PAÍS

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Abstract: *The article is devoted to the theme of digital business and its influence on economic system of Brazil. The authors describe major tendencies in technological development of the country and compare it with other Latin American countries.*

Key words: *digital economy, Brazil, mobile communications, Internet, technologies, venture capital, investments, startup.*

Una de las mayores tendencias modernas es la creciente influencia de la tecnología y la transformación digital. Por supuesto, la transformación digital afecta a todas las esferas de la vida humana, y la economía no es una excepción. Está claro que para no ir a la zaga hay que seguir las tendencias mundiales.

Uno de los ejemplos más exitosos de implementación de tecnología en la economía es Brasil. Hay que mencionar que Brasil es el líder en América Latina en el campo de las comunicaciones móviles e Internet. Todo eso tiene un impacto positivo en el clima de inversión y el desarrollo de la economía del país. Brasil es la sexta economía más grande del mundo por PIB nominal, la más grande de América Latina y la segunda más grande en el hemisferio occidental [1]. También es uno de los mayores mercados de tecnologías de información entre las economías emergentes.

De acuerdo con las recientes estadísticas globales Digitales 2017, la penetración de Internet en Brasil es el 49%, mientras que el promedio de horas por día gastadas en la web es el más alto a nivel mundial: 2,4 horas en los dispositivos móviles y 6,1 en las computadoras [2]. Cuando se trata de la penetración móvil, hoy Brasil cuenta con 270 millones de usuarios móviles, lo que es un tercio más de todos los usuarios en América Latina. El número de usuarios de los teléfonos inteligentes estima alcanzar 89,5 millones. Es el quinto indicador más alto a nivel mundial, con un crecimiento anual del 22% [2].

La penetración de los Smartphone también va en aumento, y es del 26% para el día de hoy [3]. Merece la pena mencionar datos de interés sobre el comportamiento de los usuarios móviles:

- 89% de los usuarios de smartphones utilizan sus dispositivos para buscar información local;
- 82% utiliza su dispositivo para la investigar productos y servicios;
- 30% hizo una compra a través de dispositivos móviles.

Cuando se trata de los pagos móviles, Brasil es sin duda uno de los pioneros en América Latina, en desarrollar, comerciar y operar: están elaborando en estrategias nuevas e innovadoras, contribuyendo a que el comercio móvil se convierta en una parte de la rutina diaria para millones de usuarios móviles.

Cabe subrayar que el desarrollo exitoso del país en el campo de la tecnología fue conseguido gracias a una multitud de proyectos en este campo. Primero, en Brasil, las incubadoras están en desarrollo activo, la mayoría de las

cuales funcionan como aceleradores. Uno de los primeros aceleradores de Brasil fue Aceleradora.net. A diferencia de la mayoría de los aceleradores que se centraron sólo en las grandes ciudades, Aceleradora.net cubre las ciudades en todo Brasil, promoviendo el desarrollo regional. El programa está diseñado para 3 meses. Por el momento, cuenta con 100 empresas-participantes. Otro ejemplo de una incubadora exitosa es 21212.com, una red de aceleradores que se encuentran en dos ciudades: Rio de Janeiro (código postal - 21) y Nueva York (código postal - 212). Este acelerador se centra en los proyectos de TI. Este programa de cuatro meses incluye una inversión inicial de $ 12,700 y asistencia a mentores célebres como lo son Fabio Seixas (Camiseteria), Anderson Thees (Apontador) y Paulo Novis (Infoglobo) en América Latina [4].

Concluyendo, es de resaltar que debido al crecimiento acelerado de la economía en Brasil, el número de representantes de la clase media va aumentando cada año. Actualmente, 88 millones de personas tienen acceso a Internet, es el 46% de la población total del país, y esta cifra irá creciendo [5]. Por el momento, Brasil ocupa el segundo lugar en el mundo por el número de usuarios de Facebook y Twitter. Por lo tanto, Brasil tiene grandes perspectivas de llevar a cabo los negocios en Internet. El crecimiento de la industria móvil y la economía digital en Brasil tiene una influencia significativa en el desarrollo social y económico. El dispositivo móvil no sólo se ha convertido en el factor clave para la comunicación sino también funciona como proveedor de servicios en diferentes áreas como el transporte, la banca, las transacciones, la educación y la salud.

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FINANCIAL CONTROL EFFICIENCY

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Abstract: *This review defines the term "financial control" and discusses the methodology of financial control and its types. Much attention is given to main financial control techniques and financial control efficiency. Financial control is defined as control of financial resources as they flow into the organization (i.e. revenues, shareholders investments), are held by organization (i.e. working capital, retained earnings), and flow out by the organization (i.e. expenses). This type of control method aids managers in acquiring, allocating, and evaluating the use of financial resource, such as cash, accounts receivable, accounts payable, inventories, and long-term debt. These methods also enable managers to achieve acceptable liquidity, solvency and profitability standards.*

Key words: *financial control, efficiency, financial resources, return on investment, manager.*

Introduction

The efficiency of financial control is determined by the contribution it has in preventing and eliminating failures, improving the organization and management of the decision-making process and growing the efficiency throughout the economic activity.

According to L. Kurmaeva, processes used by managers to fulfill their responsibilities fall into two categories such as planning and controlling [1].

The first process is planning. Managers must make plans to guide company personnel and detail how company objectives will be met. These plans may be considered as strategies that are forward-looking and helping to predict what will happen and how.

The second process category is controlling. Managers put controls into place to find out what is happening, how well the company is meeting goals and to determine corrective actions if required. These methods of control are helpful to consider the present and the past.

The author points out that financial control refers to the facts demonstrating if the business has the right to control the economic aspects of the worker’s job [1]. The financial control factors fall into the categories of

significant investment, unreimbursed expenses, opportunity for profit or loss, services available to the market, method of payment.

Financial control as a category

With financial control it is possible to evaluate general performance when faced with a strategic plan. For this reason, it is necessary for all the employees of the organization to consider financial control not as a negative and regulatory element, associated with concepts such as imposition, limitations or surveillance, but rather as a mechanism to guarantee that the current activities of an organization are in line with planned operations.

A. Volkov and Y. Volkov give a valid and commonly accepted classification including three major typologies of financial control:

- immediate or directional financial control,
- selective financial control,
- postdate financial control [4].

Immediate or directional financial control consists of using a "classic" vision of financial control. It entails knowing with the highest degree of certainty or detail the current situation of the company at any given moment. As a rule, it includes controls of a global nature based on general financial situations.

Selective financial control is a more specific type of control than the former, as it is focused on certain areas of the business, with the aim of establishing whether these areas comply with the processes and seeking alternatives on the way.

The principal characteristic of postdate financial control is that it is carried out once operations have already taken place. That is to say, the comparison is carried out between planned objectives based on the results already obtained and the company acts accordingly: by continuing to work in the same way if the results are satisfactory or take corrective actions this is not the case.

For this to be more effective, the ideal for financial control is to be exercised in all areas, levels and departments of the organization and, in certain cases, simulating different situations and environments. In this way, not only errors that have already been made are identified. It serves as preparation for adverse circumstances that may occur in the future.

In the article written by Zupanovic much attention is given to financial control techniques that include the use of financial statements, ration analysis, break-even analysis and others [5].

Financial Control: Technique 1. Marginal Cost Analysis

In this analysis, overheads of fixed nature are not regarded as cost factor; it is left out to be recouped by contribution which is difference between marginal cost (i.e. variable cost only) and sales price. After the fixed overheads are recouped, the 'contribution' contributes to profit. This type of cost analysis is very much helpful in taking some important managerial decisions.

Financial Control: Technique 2. Cost Plus Profit Costing Technique

In this type, cost is found out on the basis of agreement or understanding between the buyer and the seller or contractor and contractor. The selling price is fixed by adding up agreed percentage thereof as profit. When prices of materials etc. are fluctuating, this type of contract is entered into particularly by the government to ensure reasonable profit and timely execution of urgent work.

Financial Control: Technique 3. Return on Investment (ROI)

ROI is a popular ratio in financial management and analysis. It is used in corporate planning and is considered as integral. A fairly integrated assessment of the business situation is possible through close relationship between ratios. ROI is the end- product of a series of statistical measures representing the various phases of a company's operations that contribute to this ratio. ROI is the product of earnings as a percentage of sales and the turnover of assets that produce these sales.

ROI can be interpreted in the following formula (see Figure 1):

$$ROI = \frac{\text{Earnings}}{\text{Investment}} = \frac{\text{Earnings}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Cap, Employed (not taxable assets)}}$$

Figure 1. ROI formula [5]

Financial Control: Technique 4. Budgeting

A budget is one of the most important overall control devices used by modern management. Budgets are essentially plans of action. But their use in financially controlling the enterprise is so great that they have come to be regarded as the media of control.

The term "budgeting" points out controlling based on a budget, thus a budget serves as a mechanism for planning and controlling. Budgetary control naturally involves preparation of budgets and later comparison of actual with planned expenditure or comparison of actual performance with the budget and

taking corrective actions, if necessary, to remove the shortfall or deficiency. It gives due recognition to the importance of managerial functions of planning and control.

In recent times, it has attained great significance in Western countries to ensure the effectiveness of operations of a business enterprise. This technique has undergone radical changes in the recent past. The budgetary control system cannot be standardized and made uniform for all business.

According to I. Pop, the factors that influence the efficiency of financial control can be grouped into two categories: direct factors and indirect factors [3]. In the category of direct factors, I. Pop has considered the control authority, consciousness, training and methods used during the inspection to increase its efficiency. Indirect factors take into account the material conditions in which the control takes place, audit-specific legislation, relations between inspectors and economic entity and the factual situation, respectively the control objectives, the control period and the results of the control.

Among the ways to increase the efficiency of financial control, the following factors are taken into consideration: financial stimulation of the control authorities, ensuring the independence of control activity, modernization of the control process, increasing educational level of inspectors and rational organization of the control activity.

Conclusion

Financial control is an important tool that managers put into place to track performance and evaluate progress towards the financial goals of the company. Once strategic management decisions have determined how the company will proceed, financial control evaluates how adequately the company is following strategic plans and how valid the strategic decisions are.

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PRINCIPAL COMPONENT ANALYSIS IN EMOTION RECOGNITION: A REVIEW OF THE LITERATURE

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***Abstract**: Emotion recognition is the process of identifying human emotion, most typically from facial expressions. Automatic emotion recognition is necessary in many real-time applications related to driver state surveillance, personalized learning and health monitoring. The development of a powerful, yet simple and fast enough method is the main goal for research in this field. Recent works describe various different techniques, one of them being Principal component analysis. This article explores relevant significant works on using PCA in emotion recognition and summarizes the results obtained.*

***Key words**: Emotion Recognition, Facial Expression Recognition, Principal Component Analysis.*

Introduction

Principal component analysis is a statistical procedure that converts a set of variables into a smaller set of linearly uncorrelated variables. It was invented in 1901 by Karl Pearson as an analogue of the Principal axis theorem in mechanics. Sirovich and Kirby first used PCA to represent pictures of human faces [5]. They proposed that a face image could be reconstructed approximately as a weighted sum of images that define a facial basis. Since then, PCA has become one of the most common approaches in face recognition.

While the simplicity of PCA is an obvious advantage, its efficiency deserves some further investigation. This article reviews six PCA related works. Meher and Maben present the result of training and testing PCA on a small database [4]. Yang et al. introduce a new PCA based method [6]. El-Hori et al. compare PCA and filtered PCA [2]. Yuan et al. and Ali et al. propose hybrid

models based on PCA [1; 7]. Filko and Martinovic implement a PCA based neural network [3].

PCA's recognition rates

Meher and Maben [4] provide experimental results on using PCA for facial expression recognition. PCA was trained and tested on the Small Max Plank Institute Facial Expression database containing 200 images of cropped faces with 5 different facial expressions. 97.1% recognition rate was gained. They prove PCA to be fast and reliable, but highlighted robustness issues. Changes in lightning, head size and orientation could violate PCA's performance.

Yang et al. [6] introduce a new technique named two-dimensional PCA. As opposed to conventional PCA, 2D-PCA is based on two-dimentional matrices rather than one-dimentional vectors. As a result, it's easier to evaluate the covariance matrix accurately and less time is required to determine the corresponding basis vectors. 2D-PCA outperformed PCA significantly with 96.1% and 94.7% recognition rates respectively with time of feature extraction decreasing from 130.42 for PCA to 7.25 for 2D-PCA.

El-Hori et al. [2] propose using PCA with a Gabor filter. A Gabor filter is a Gaussian function modulated by a complex plane wave. The experimental results indicate that PCA with GF (average recognition rate 73.35%) outperforms PCA (average recognition rate 55.85%) under different facial expression background and illumination condition.

Yuan et al. [7] propose a hybrid model based on PCA, local binary pattern (LBP) and support vector machine (SVM). Authors point out that the global feature extracted by PCA is based on the whole image. The local texture feature extracted by LBP can assist the global feature extracted by PCA. Combined with PCA and LBP, SVM can further improve the accuracy and robustness of facial expression recognition. In the experiment based on 350 images dataset with seven different kinds of emotion SVM performed with 71.5% recognition rate while combination of SVM, LBP and PCA performed with an impressive 94.0% rate.

Ali et al. [1] propose another hybrid model based on PCA, discrete wavelet transform (DWT) and linear discriminant analysis (LDA) for seven different facial emotion recognition. The proposed method is evaluated based on two different databases, namely Japanese female facial expression and Cohn-Kanade database. The proposed method gives recognition rates of 100% for JAFFE and 97.52% for Cohn-Kanade.

Filko and Martinovic [3] propose a system for human emotion recognition based on PCA and neural network. The proposed system has been trained and tested on the FEEDTUM database. FEEDTUM contains data from 18 individuals consisting of over 300 images for each of the seven universal emotions. The images included are derived from video clips of subjects which were broken into series of individual images starting with a neutral emotion and followed by the display of the actual emotion. A PCA based NN achieved a relatively high average score of 70% and therefore showed promise for future development.

Table 1 provides summarized results of this review.

Reference and year	Approach and method	Performance
Face Recognition and Facial Expression Identification using PCA. (2014)	PCA	97.1% recognition rate for 5 different emotions on the Small MPI Facial Expression database
Two-Dimensional PCA: A New Approach to Appearance-Based Face Representation and Recognition. (2004)	2-Dimentional PCA	96.1% and 94.7% rates for 2DPCA and PCA respectively
Facial expression feature extraction using hybrid PCA and LBP. (2013)	PCA, LBP and SVM model	94.0% average recognition rate for 7 different emotions.
Hybrid feature extraction for facial emotion recognition. (2011)	PCA, DWT and LDA model	100% and 97.52% recognition rates for 7 different emotions
PCA Facial Expression Recognition. (2013)	PCA with Gabor filters	73.35% average recognition rate comparing with 55.85% recognition rate with PCA only
Emotion Recognition System by a Neural Network Based Facial Expression Analysis. (2012)	Neural Network with PCA	70% average rate for 7 different facial expressions on the FEEDTUM dataset.

Table1. Results table for literature survey.

Conclusion

The results of six different approaches to use PCA in emotion recognition were explored in this article. PCA has shown high recognition rate on a small MPI dataset, but relatively low rate on various other datasets. However, combining PCA with other techniques gives a surprisingly high efficiency. Even though PCA is not that good as a separate model, its simplicity and feature extraction potential are definitely worth of further investigation.

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MOBILE BANKING

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Absrtact: *In the late 1990s and early 2000s, banking has undergone and is still undergoing some considerable changes, adjusting itself to new challenges. Modern information technologies have granted an opportunity to banks to expand their operations and adjust their offer of products and services, placing them through new communication channels. The increasing reliance on mobile devices has facilitated the development of a new form of banking, known as mobile banking. Mobile banking is a specific channel of electronic banking, enabling clients to communicate with the bank via mobile devices at any time and at any place. The research focuses on mobile banking, its main characteristics, advantages and disadvantages.*

Key words: *mobile banking, electronic banking, banking services, modern information technologies, bank clients, mobile devices.*

Introduction

The expansion of information technologies in the banking sector has advanced the technology of banking. The reason for introducing modern

communication technologies into the banking sector is determined by the advantages it brings. They are multiple, including the reduction of business costs, raised awareness of clients about the banking products and services, innovative operations, offering of both standard and non-standard products and services, increased efficiency of this offer, and the focus on a client as an individual.

Banking implies the existence of distribution network through which clients may establish information and business contacts with the bank. A bank can communicate with the client through branches, ATM system, POS system, home banking (telephone banking), online banking (PC banking), WEB TV banking, SMS banking, Internet banking and mobile banking.

Mobile banking is the latest trend in electronic banking development. Mobile banking is a new channel enabling payments via mobile phones with the special software for mobile Internet access. By means of mobile technology, the bank enables its clients to control their own transactions, the main advantage being mobility (communication at any time and any place), and simple usage.

The Concept and Technology of Mobile Banking

An increasing amount of publications in the sphere of mobile banking signifies the expanded role of such technology in our life.Tthere are different approaches to the definition of mobile banking. Thus, S. Barnes and B. Corbitt define mobile banking as "a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or personal digital assistant" [3, p. 273]. According to Agwu, mobile banking is "the provision of banking and all forms of financial services through mobile telecommunication devices such as the smart phones, androids, etc." [1, p. 375]. However, these approaches do not take into account specific services which client may have by mobile banking. There is another definition of the term "mobile banking" according to which"mobile banking refers to provision and availability of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information." [2, p. 619]. From my point of view, this definition better reveals the idea of mobile banking. Nevertheless, some important features should be added to the definition of mobile banking, such as the ability to access banking services anytime and anywhere via mobile phone.

Mobile banking offers a wide range of services to the clients, which may be classified into three main groups:

1. Via mobile devices, the clients may use the products and services related to the account they own with the bank, for example, money transfers, standing orders for payment of bills, transfers of money into sub-accounts, reporting of insurance policies, etc.

2. Brokerage services are also available to the clients via mobile devices. The services refer to the purchase or sale of financial instruments (e.g. securities, shares, etc.).

3. Financial information in terms of informative messages such as balance inquiries, latest transactions, information on credit cards, locations of branch offices and ATMs, market interest rates, etc.

Mobile banking implies developed technology and usage of different channels. It is possible to use mobile banking via: Interactive Voice Response, Short Messaging Service, Wireless Access Protocol or Standalone Mobile Application Clients. There is no doubt that mobile application is the most popular and modern technology nowadays. So all banks develop their own mobile banking apps to attract new clients. One of the possible ways to improve apps is to create hybrid mobile applications which using web technologies (JavaScript, HTML, CSS) [7, p. 111]. The main advantage of using this application is a higher visibility on the platforms used by most mobile users in the market (IOS, Android, Windows).

The Clients of Mobile Banking Services

According to the Global Mobile Banking Report (KPMG ,2015), number of mobile banking users growth to 0.8 worldwide in 2014. The number of mobile banking users globally is predicted to double in the next 5 years. Worldwide mobile banking is expected to be over 119% between 2014 and 2019 [4, p. 32].

The objective is for mobile banking to be used by as many clients as possible. However, the usage of mobile banking depends on the clients, i.e. on their age group and readiness to use information technologies. Young people between 16-24 years have in proportion of 88 % a mobile phone. These clients represent the future basis of clients in the long-term marketing strategy. I think, employed people, (group between 25 and 60 years), are the ideal target group for this form of communication with the bank because of their financial activity. The statistics show that among women it is 62,5% owners of mobile banking and among man - about 59,5% [6, p. 111].

At the same time mobile banking adoption among consumers is much faster than the adoption of internet banking as banks have educated their

customers and have invested a great deal in mobile. In both developed and developing countries, the rapid take-up of mobile banking is evident.

Apart from that banks are expecting an increase in the usage of mobile devices for banking activities in the forthcoming period The clients in all age groups are expected to increase their usage of mobile device for the purpose of performing banking activities.

Advantages and Disadvantages of Mobile Banking

Mobile banking facilitates increased sales and cost reduction in the bank. Each bank's objective is to reduce costs per transaction, in order for the bank to achieve bigger profit, and for the clients to have lower costs. Besides, preparation of personalized messages for the client, with the appropriate offer, increases the probability of selling different bank products and services.

Mobile banking generates certain advantages compared to traditional ways of conducting bank-related activities. The most important advantages are provision of specific services earning the clients' loyalty, solving of time-critical situations in terms swift reactions related to certain transactions, increase in the clients' efficiency in performing daily routines.

It should be emphasized that the benefits of using mobile banking are both for the bank and for the client. Advantages for the bank are increasing the market share, reducing business costs, acquiring new clients and deposits, personalized contact with the client, better positioning at the market. On the other hand, advantages for the client are quick access to the accounts, cost reduction, using bank services and products in real time, receiving personalized messages from the bank.

It cannot be denied, owing to mobile banking and mobile technologies, banks have better insight into the behavior of their clients when it comes to using banking products and services.

However, mobile banking has some weaknesses. Disadvantages like unsafety, uneasiness, high costs, are often the limitation factors for the widespread usage of mobile banking. It is common knowledge that more than a half of the clients do not trust the safety of performing banking services because of online banking cybercrimes. [5, p. 53]. In addition, there are another risks of mobile banking. such as: operational risk (potential losses due to the lack of safety, system implementation and maintenance), strategic risk, legal risk (e.g. money laundering), reputational risk (if mobile banking is not in line with the needs and expectations of the clients).

Disadvantages of mobile banking are related to the protection of information and client identity checks. Weaknesses in the protection system, Internet abuses, and lack of privacy have resulted in banks and legislative systems having to define together the strategies for solving problems in the usage of state-of-the-art information technologies. To this end, a bank must assess the risk and costs of protection measures and controls required for adequate management and supervision of mobile banking activities.

In order for mobile banking to be used properly, there are certain preconditions that have to be met by the clients, banks, mobile operators and legislations.The population must have financial literacy, the bank must provide high-quality services by focusing on the client and having well-trained and professional personnel, laws and regulations must be precise and comprehensive, including the Law on Data Protection and Transfer, and penalty clauses against potential frauds, in order to increase safety and security of performing mobile banking operations.

Conclusion

To sum up, it should be noted that mobile banking has the potential to become widely used and accepted by a large number of clients. Such changes grant a possibility to banks to keep their existing clients and attract new ones by offering them added value through modern forms of communication.

Banks must follow the development of modern information technologies, especially mobile devices, in order to be the carriers of innovations in mobile banking. Other than developing products and services to be offered via mobile banking, banks must provide safety and security in the process of using this communication channel. Improving safety and reducing risk of conducting bank services via mobile devices would increase the clients' trust in mobile banking. Moreover, constant expansion of bank services may motive the clients to accept the new method of communicating with the bank. In addition to the above, client support in using the mobile application considerably increases client satisfaction and confidence in the bank offering them the service of mobile banking. Furthermore, new competition in the form of telecommunication companies developing bank services will force banks to resort to innovativeness as their basic strategy for keeping the existing position. In line with that, mobile banking is expected to become a standard service for all the banks.

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ARGENTINA Y CHINA: LA NUEVA PERSPECTIVA DE COOPERACIÓN BILATERAL

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Abstract: *This article describes the development of diplomatic relations between China and Argentina. Recently the export and import rates between both countries have increased. Special attention is paid to the analysis of such scopes of bilateral cooperation as food and infrastructure.*

Key words: *diplomatic relations; China; Argentina; export; import; bilateral cooperation; food; infrastructure.*

Este año se conmemora el 45 aniversario de la relación diplomática entre China y Argentina. No es casualidad, porque China es en la actualidad uno de los mayores socios comerciales de la Argentina tanto en exportaciones como en importaciones. En 2016 las exportaciones argentinas a China se ubicaron en 4661 millones de dólares estadounidenses. Las exportaciones a China representan el 8% del total exportado por Argentina. Las importaciones desde China se multiplicaron por 10% entre 2001 y 2011, pero luego se han mantenido

relativamente estables. En 2016 se ubicaron en 10.500 millones de dólares estadounidenses, lo que representa el 19% del total nacional [4].

Los productos que Argentina vende a China en 2016 fueron esencialmente alimentos. Los más importantes fueron porotos de soja, que explicaron el 63% de las ventas a ese país. Muy por detrás se situaron aceite crudo de petróleo (8,5%); carne bovina (5,2%); camarones y langostinos (3,6%); gallina congelada (2,1%); aceite de girasol en bruto (1,9%); tabaco desvenado (1,4%); aceite de maní en bruto (1,2%). Cabe destacar que, en 2016, 40% (35% en 2015) de la exportación de carne vacuna argentina fue al mercado chino (más de 54000 toneladas), siendo China el mayor comprador. En el primer bimestre de 2017, las exportaciones crecieron 70%. [2]. En el próximo lustro se prevé más exportación de productos autóctonos de Argentina a China.

Las importaciones procedentes de China están muy diversificadas, el 5,3% de las compras desde este país fueron circuitos impresos con componentes eléctricos o electrónicos montados para teléfonos o telégrafos; partes de aparatos eléctricos de telefonía o telegrafía (4%); partes para aparatos receptores de radiotelefonía, radiotelegrafía, radiodifusión, televisión, video monitores y video proyectores (3,6%); estaciones base de telefonía celular (1,2%) [3].

Ambos países se necesitan mutuamente. Es importante que China invierta en el sector alimenticio, ya que este puede ser un sector estratégico en los próximos años.

Cabe recordar que en 2013 fue organizado el Centro Binacional en el Área de Ciencia y Tecnología de los Alimentos. Este centro busca intensificar la cooperación bilateral entre Argentina y China en el campo de la ciencia y tecnología de alimentos, con especial énfasis en el desarrollo de agroalimentos, biotecnología, nanotecnología, industria con alto nivel educativo, producción sostenible y energía. Por ejemplo, la empresa argentina Bioceres y la china Dabeinong producirán semillas resistentes a la sequía y la salinidad con tecnología desarrollada por el CONICET [1]. O en 2014 se establecieron un vínculo con el ISTIC (Instituto de Información Científica y Tecnológica) para intercambiar la información y los indicadores sobre ciencia y tecnología. También, en 2015 China financió dos proyectos, que responden a tres temáticas: procesamiento de carne y seguridad alimentaria, procesamiento de proteínas vegetales y animales, y la tecnología de procesamiento de proteínas vegetales con propiedades funcionales mejoradas [2].

Ambos países se esfuerzan ampliar la cooperación de beneficio mutuo en todas las áreas y promover más las relaciones bilaterales. Así, en mayo de 2017

el Presidente de China, Xi Jinping pidió la realización de una serie de actividades culturales para celebrar el aniversario y dijo que las dos partes debían consolidar los intercambios y la cooperación en asuntos de la Antártida, cultura, educación, fútbol, poder judicial, aplicación de la ley, tecnología, turismo y asuntos juveniles.

Este mes "Especialización en Economía y Negocios con Asia del Pacífico e India" organizará un seminario titulado «La cooperación económica sino-argentina en la nueva coyuntura y en el contexto de la cooperación bilateral en capacidad productiva», con el objetivo de ampliar el estado de conocimiento sobre la perspectiva china, respecto de un nuevo tipo de relación con Argentina para los próximos años [5].

Cabe destacar que aparte de alimentación, los países se interesan en la cooperación en infraestructura. En julio de 2014, Argentina y China, durante la visita de Xi Jinping a Buenos Aires, firmaron 19 acuerdos, entre los que se destacan la construcción de centrales hidroeléctricas, la modernización de la red de transporte de carga Belgrado-Cargas por un total de 7.000 millones y medio de dólares. En mayo de 2017, el Ministro Caputo se reunió con representantes del China Development Bank para acordar financiamiento para el Belgrano-Cargas. En ese sentido, el Ministro firmó un memorándum de entendimiento con el Presidente de China Development Bank (CDB) para el proyecto de rehabilitación del ferrocarril Belgrano-Cargas [5].

Así, el Banco asiático financiará la adquisición de equipamiento ferroviario, obras y servicios para un ferrocarril de trocha angosta con una extensión total de 1.400 kilómetros [2]. Asimismo, el jefe de Gabinete del Ministerio de Finanzas, Pablo Quirno, firmó el Plan Quinquenal Integrado China-Argentina para la cooperación en infraestructura 2017-2021.

De esta manera, los documentos firmados tienen como objetivo contribuir al desarrollo de las relaciones económicas entre ambos países.

Para resumir todo lo que se ha dicho, actualmente, Argentina y China tienen dos áreas prometedoras de cooperación: industria alimenticia e infraestructura. La cooperación bilateral en estas áreas es realmente fructífera para ambos países, ya que cada año se realizan nuevas reuniones, en las que se firman nuevos tratados y acuerdos. Además, casi todos los proyectos planeados se realizan y funcionan con éxito, beneficiando tanto a Argentina como a China.

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MACHINE LEARNING IN BANKRUPTCY PREDICTION: A REVIEW OF THE LITERATURE

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Abstract: *This paper reviews the literature on the implementing machine learning algorithms in credit scoring. Banks are interested in creating highly performance models when they deal with their customers' loans. According to researchers' experience, if banks want to receive models with good accuracy, it's time to use modern algorithms in conjunction with classical econometric models. Here we analyze the way of models' comparison in solving credit scoring task, speaking about common problems in real time modeling and ways of models' selection and validation. We conclude the results with some summary about using machine learning in banks typical tasks and stress what can be done for improving the quality of predictive models.*

Key words: *machine learning, credit scoring, bankruptcy prediction, econometrics, data analysis.*

The recent financial crises have shown that banks should pay more attention to the problem of predicting probability of their customers' default. If a bank has a model with high performance, it would analyze customers, classifying then into two groups: default and non-default. It's common knowledge that majority of banks create classical statistical models like Logistic Regression as the only one algorithm because modern technologies are not as well known as time-tested. The aim of this paper is to show that according to the last experience, state-of-the-art models have an opportunity to participate with baseline models in credit scoring task. In this work the second paragraph highlights basic data problems. The third paragraph explains the advantages and disadvantages of machine learning algorithms and ensemble models. Section four describes the possible way of models' validation. Finally, the last section provides summary of all the work. Sources used in this article are modern and reflect real approach to the solution of practical problems related to credit scoring in banks.

Machine learning algorithms can be more effective in solving real data problems. To begin with, when we work with data for studying, this data is often adopted for learning modeling techniques. However, when analysts deal with real datasets, they faced some difficulties which are not so simple to overcome. The famous problem is the problem of data imbalance [4].It means that we don't have enough observations in some class. This problem is typical for credit scoring. No doubt, all kinds of models suffer from this problem, but machine learning algorithms often have better accuracy [4]. The next problem refers to the linear separability of classes. If the real separating hyperplane is non-linear then linear models, like Logistic Regression, Support Vector Machines with linear kernel, perform worse than modern algorithms. For example, Neural Networks can separate non-linear classes because of the opportunity to find complex dependences between target variable and exogenous variables [2; 3].

Modern technologies have pros and cons. It must be stressed that the idea of using mixture of algorithms according to one task is widely used by data scientists. We can find the confirmation of this in works of Ala'raj and Abbod [1], Barboza et al. [2] and Tsai and Hung [5]. This approach simulates the voting specialists, who can give the right answer if their responses are weighted. Traditionally when researchers have different answers, they find the mean answer and it is considered to be optimal, but nowadays it is significant to

weight models' answers in accordance of models' accuracy [1; 5]. As a result, ensemble of models, especially models like Neural Network, Decision Trees and etc., can provide greater accuracy of forecasts. It is important to note that there are some difficulties in using machine learning:

- machine learning models are inclined to overfitting because of their complexity [2];
- when we try to find the optimal parameters of complex model, for example, number of hidden layers, number of neurons, learning rate in Neural Network model, it is a field to research [2];
- no doubt, when we receive a better accuracy, we sacrifice the model's result interpretation. It can be a critical problem for banks because they require forecast interpretation, especially, when they deal with corporate borrowers.

Model must be validated after training. When we train any model, we can face two mutually exclusive problems: overfitting and underfitting. The first problem means that our model has learned everything from the train dataset, but it cannot perform in any other data. Underfitting is the situation when the model is simple for available data and it must be more complex. All these situations are frequently encountered in practice and lead to non-quality model. All the articles, uses in this work, consist of several steps of validation:

- split available data into two datasets: train and test data [1; 3;2] and cross-validation [4; 5];
- using different metrics and statistical tests to measure models' performance;
- tune model hyperparameters like number of hidden layers etc.

To sum up, this paper focuses on the problem of using machine learning algorithms in banks credit scoring tasks. No doubt, banks' data about their borrowers often contain information in which number of default leaves much to be desired. That's why, using modern and statistical models is a good way to find the best approach. Withal, method SMOTE can add to dataset new observations of minority class which is similar to the existing ones in terms of some metrics (Euclidean metric, for example). Ensemble models can be adopted to any type of models, and as they will definitely lose interpretation independently from the type of using models, there are no any limits here. However, we recommend using weighted ensemble voting like Ala'raj and Abbod [1] and Tsai and Hung [5] do. It must be stressed that cross-validation is worth using when you don't have enough data to split it into train and test

datasets. Cross-validation in the situation of the lack of data can provide accuracy measures of algorithms on small sets of data. Unfortunately, the question of tuning models' hyperparameters is complex and it requires the exploration and experience. We are for selection extra data and implementation of grid search of models' configuration. And of course, it is better to try using different models, including statistical ones, to fit different models and check accuracy. Nowadays, it's the only way to get the accurate model which predicts default of borrowers and saves bank's money.

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LES OPPORTUNITES AVEC LES MONNAIES COMPLEMENTAIRES

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Dans cet article nous révisons les types différents des monnaies complémentaires. En plus, nous donnons les raisons pour implémenter les monnaies dans l'économie locale.

Mots-clés : *monnaies complémentaires, monnaies communes, monnaies locales.*

En 2012, le Fonds Monétaire International (FMI) a publié un brouillon « Systemic Banking Crises Database : An Update » [5]. Les auteurs ont identifié qu'á la période 1970-2011 ont lieu 147 crises bancaires, 218 crises monétaires et 66 crises de la dette souveraine dans le monde entier. Aujourd'hui, les gens ont obtenu des progrès sans précédent en physique, chimie, astronomie et autres domaines de la science mais ils ne peuvent pas encore protéger leurs sources de financement des risques comme les crises mentionnées.

Heureusement, il existe beaucoup de solutions aux problèmes mentionnées. Dans le cadre de cet article, nous proposons plusieurs idées,

connues comme les monnaies complémentaires, qui ont déjà montré leur efficacité dans certaines régions du monde [3].

Selon le rapport « Mission Monnaies Locales Complémentaires » de Nicolas Meunier, les monnaies locales complémentaires sont les systèmes ou « les participants utilisent des unités de valeur en lien avec la monnaie centrale (et souvent obtenue par les participants en les achetant contre la monnaie nationale) pour réaliser leurs échanges» [7].

On distingue plusieurs types de ces monnaies complémentaires. Par exemple, il y a les monnaies commerciales (PSN Cardes, Burger King coupons etc.) et les monnaies locale/commune (TEM en Grèce [8]). Cependant, toutes ces monnaies ont quelques choses de commun. La monnaie doit :

- Être la responsabilité de quelqu'un pour d'être l'actif d'autres ;
- Être sûr de la spéculation ;
- Être mesurable ;
- Avoir de valeur ;
- Être sans intérêt ;
- Être disponible partout dans la région.

Bien qu'il y ait un manque de statistique de l'impact de monnaies complémentaires sur l'économie régionale, les habitants de Bristol, Magnesia et Exeter disent qu'ils ont remarqué des changements positifs importants dans leurs villes [1, 4, 8].

Concernant l'influence des monnaies complémentaires sur le développement régional, nous pouvons observer l'évidence de la Belgique. En 2010, les volontaires en coopération avec l'administration de la ville ont commencé le projet « Toreke » dans le district de Rabot de Gand [2]. L'administration a créé une nouvelle monnaie et a payé aux habitants qui ont nettoyé le quartier, fait des activités avec les enfants locaux, enseignent aux aînés etc. Les résidents pourraient échanger leur Torekes aux magasins ou louer un petit jardin.

Selon Lagrangian Republican Association, 1,280 volontaires ont participé au projet et gagné 117,000 Torekes en 2015 [6]. Par conséquent, cette monnaie locale permet la stimulation d'économie locale sans augmenter la dette publique. Cela signifie que les monnaies complémentaires sont la meilleure solution si le but est de développer une économie locale sans encourir beaucoup de la dépense.

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THE AI IMPACT ON STRATEGY OF ADVANCED INDUSTRIAL COMPANIES TO 2025

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Abstract: *The article describes some aspects of the impact of artificial intelligence (AI) on businesses, consumers and the economy more generally. The authors give recommendations on the use of technologies and reveal the advantages of such approach.*
Key words: *artificial intelligence, AI, impact, market.*

In a broad definition, AI is a collective term for computer systems that can sense their environment, think, learn, and take action in response to what they are sensing and their objectives. After decades of many promises and frustrating disappointments, artificial intelligence (AI) is finally starting to deliver real-life

benefits to early-adopting companies. Forms of AI in use today include digital assistants, chatbots and machine learning amongst others:

- Automated intelligence: Automation of manual/cognitive and routine/no routine tasks;
- Assisted intelligence: Helping people to perform tasks faster and better;
- Augmented intelligence: Helping people to make better decisions;
- Autonomous intelligence: Automating decision making processes without human intervention [4].

As humans and machines collaborate more closely, and AI innovations come out of the research lab and into the mainstream, the transformational possibilities are staggering.

According to PwC's estimates, AI could contribute up to $15.7 trillion to the global economy in 2025, more than the current output of China and India combined. Of this, $6.6 trillion is likely to come from increased productivity and $9.1 trillion is likely to come from consumption-side effects.

While some markets, sectors and individual businesses are more advanced than others, AI is still at a very early stage of development overall. From a macroeconomic point of view, there are therefore opportunities for emerging markets to leapfrog more developed counterparts.

Global GDP will be up to 14% higher in 2030 as a result of the accelerating development and take-up of AI – the equivalent of an additional $15.7 trillion.

The economic impact of AI will be driven by:

1. Productivity gains from businesses automating processes (including use of robots and autonomous vehicles);

2. Productivity gains from businesses augmenting their existing labour force with AI technologies (assisted and augmented intelligence);

3. Increased consumer demand resulting from the availability of personalised and/or higher-quality AI-enhanced products and services.

Thus, in the near-term, the biggest potential economic uplift from AI is likely to come from improved productivity. This includes automation of routine tasks, augmenting employees' capabilities and freeing them up to focus on more stimulating and higher value adding work. Capital-intensive sectors such as manufacturing and transport are likely to see the largest productivity gains from AI, given that many of their operational processes are highly susceptible to automation. The impact on productivity could be competitively transformative –

businesses that fail to adapt and adopt could quickly find themselves undercut on turnaround times as well as costs. They stand to lose a significant amount of their market share as a result.

Retailers on the digital frontier rely on AI-powered robots to run their warehouses—and even to automatically order stock when inventory runs low. Utilities use AI to forecast electricity demand. Automakers harness the technology in self-driving cars etc. [1].

Typical steps to defining an AI strategy include identifying potential applications, playing out scenarios of AI-generated industry disruptions, defining a strategic stance and selecting underlying AI initiatives, and making the AI transformation happen. The first two steps focus on understanding how the external environment could evolve, while the second two cover what the company should do about it.

A critical step is to fit the AI approach to the problem and the availability of data. Advanced industries such as automotive, semiconductors, and industrial manufacturing could harness AI over the next decade to discover entirely new ways to make things better, cheaper, and faster [5].

In the next 15 years, the greatest impact of artificial intelligence will be directed to the four most important sectors of the economy: healthcare, automotive, the financial sector and energy. Outlining the areas with the biggest potential and associated timelines we can see some aspects of change in the future and the further company's growth potential.

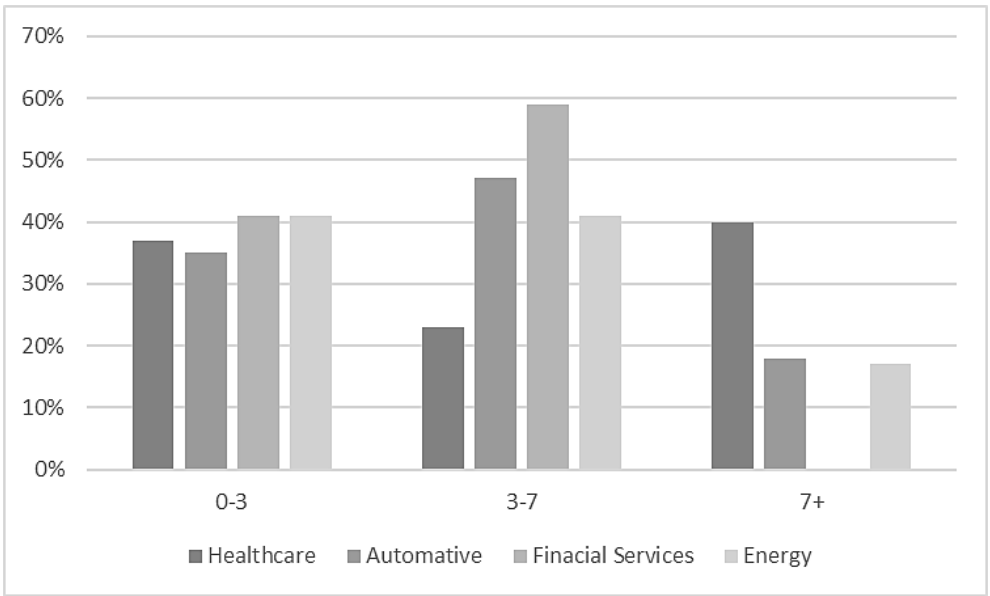

Chart 1. The potential AI's impact on different economic sectors [3]

As recent McKinsey Global Institute research indicates, there is a yawning divide between leaders and laggards in the application of AI both across and within sectors.

Executives hoping to narrow the gap must be able to address AI in an informed way. In other words, they need to understand not just where AI can boost innovation, insight, and decision making; lead to revenue growth; and capture of efficiencies—but also where AI cannot yet provide value. What's more, they must appreciate the relationship and distinctions between technical constraints and organizational ones, such as cultural barriers; a dearth of personnel capable of building business-ready, AI-powered applications; and the "last mile" challenge of embedding AI in products and processes [2].

Summing up, leaders need to determine what AI can do for their company by looking at potential applications and scenarios and then building their approach around those findings [5].

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PREPARING PERSONNEL FOR THE RUSSIAN DIGITAL ECONOMY

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Abstract: *The article describes the problem of modernizing the education system of Russia in order to ensure further development of the digital economy and introduces possible solutions in this sphere.*

Key words: *digital economy, personnel training, digital education system, professional education in the digital sphere.*

The following survey is treating one of the aspects of a topical theme of our time - the *digital economy*, namely - the role of personnel and education in the digital economy in Russia.

This aspect is a part of the program *Personnel and Education*, approved by the government commission on the use of information technology for the purpose of improving quality of life and business environment. This program is basically aimed at preparing highly qualified specialists, well versed in the digital science and able to find applications for the latest technologies. It is obvious that it is necessary to improve the quality of education in Russia in order to increase the number of highly qualified personnel, specializing in the digital economy.

Late in 2017 some goals have been outlined within the framework of this program: the provision of state orders for specialties and areas of training in higher education, the study of domestic and foreign developments in higher education; the participation of high-tech domestic companies in the formation of strategies for the development of universities that train specialists for the digital economy [1, 2, 3].

It is proposed to create comfortable conditions to attract IT-specialists for teaching in the system of higher education by the end of 2019.

In order to successfully realize all the goals, the government commission should: create more jobs; provide opportunities for advanced training of

employees; motivate foreign professionals to help in creating digital economy in Russia by training specialists in this sphere. Russian economists should provide opportunities for the development of employees and motivate highly qualified foreign specialists to participate in the development of the digital economy of Russia. It is necessary to set up a new system of professional education preparing new personnel in the digital sphere, to motivate and help citizens to work with new digital tools, to help elderly people to comprehend digital technologies [7].

After completion of the main stage of this program in 2021, a new system of digital certificates, issued by the so-called *Online Digital School*, should be set up. It is planned to increase the number of IT qualified students to 120,000. It is expected that all the citizens of different demographic groups will be able to get access to new technological education. Ratings will also be designed in order to develop and evaluate the digital education system. It is planned that a government commission will create digital *Labor Index* regulating new conditions for workplaces on IT platforms [5].

Modernizing the national education system is expected to bring about the following changes related to labor conditions in Russia:

1. Currently used Employment Record Book will be replaced by a Personal History record. According to the program, by 2022 no less than 60% of companies will use a Personal History record. The share of the able-bodied population, having such a digital record of personal development, will be 10% by 2020, and will rise to 80% in 2025.

2. Flexible labor relations will be regulated by law. By the end of 2019 the framework of flexible labor relations will be outlined, which will help to provide it with a legislative basis.

3. A digital version of the *GTO* physical fitness system will be offered. It is planned to establish in 2020 a competency assessment system, which will provide an advantage upon admission to university.

4. There will be a free online service for those interested in continuing education. The resource will be available for all segments of the population.

5. A mechanism of issuing grants and benefits will be set up. The state plans to stimulate companies to train and hire personnel for available job vacancies, which is important for the digital economy. The plans include providing scholarships in order to attract prospective foreign applicants [4].

The study of relative aspects of the problem under consideration makes it possible to make a clear conclusion that Russia needs to modernize the

education system in order to ensure further development of the *Digital Economy*. Our country needs highly qualified personnel for the introduction of new technologies into the lives of ordinary people. This process should be characterized by the transition to a qualitatively new level of the use of technology in all spheres of socio-economic activity [6; 7; 8].

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WOMEN IN BUSINESS IN DIFFERENT CULTURES

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Abstract: *The article describes some aspects of women's involvement in business in different countries. The indicators in New Zealand and Japan are compared, the reasons for the existing differences are explained.*

Key words: *women; business; Japan; New Zealand.*

The participation of women in business in developed countries is a familiar phenomenon and is not surprising in the business world and society. But even nowadays many male entrepreneurs still consider that business is a purely male occupation.

A recent study conducted by MasterCard identified countries with the most favorable conditions for doing business by women. The top three were New Zealand, Singapore and Denmark, while Iran, Bangladesh and Egypt appeared to be outsiders [2]. The study comprised 4 indicators: Ease of Doing Business, Cultural Perceptions of Women Entrepreneurs, Quality of Governance, and Entrepreneurial Supporting Factors. The investigation has also revealed that the largest number of women in leadership positions is in Ghana and Russia, the lowest – in Japan; the main barriers preventing gender equality include cultural stereotypes about gender roles, absence of social guarantee system for women and traditional family values [1].

It should be noted that in Japan only 5% of women occupy senior roles in companies. Despite the fact that officially women have the same rights with men, Japan is still a strictly male-dominated society. The average annual income for women in Japan stands at around 30% below their male equivalents. Many women still choose to be housewives or to work part-time jobs because of the duration of a working day from 13 to 15 hours, which makes women quit their jobs as soon as they get married. Furthermore, the “glass ceiling” concept, when climbing the professional ladder becomes impossible, does not allow women to get past a certain level as they are stuck below it and are discouraged to aspire higher positions. Last but least, a rather strange goal for the Japanese women is to earn less than a million yen a year. Earning more than this means more taxes and pension money to be deducted [4].

On the basis of the above mentioned, it is possible to state that practically all reasons why women in Japan are not very successful in business lie in cultural specifics and traditional values of this peculiar country.

Opposite to Japan, the country with a coordinately different situation with women in business is New Zealand. Moreover, it is believed that this is the place where women enjoy the most favorable conditions to do business [3].

Currently, New Zealand is a very multicultural country with people from all over the world, being among the world’s first countries to provide women

with the right to vote. Women are treated as equals in the New Zealand workplace, often rising to senior corporate positions. Women also have greater opportunities and access to better quality of education, financial facilities, effective rules of law and governance and supporting conditions for businesses.

New Zealand is called the country of antipodes, combining so many features of different nations, all of them getting along very well. What is important, in this culture underestimating a woman is considered an insult as women and men are absolutely equal. The same thing in business - women are in no way inferior to men.

Despite the fact that the institution of the family is also very well developed there, a woman does not become a housewife. Like a man, she has the right to develop and at the first opportunity, even after the birth of the child, she goes to work. This is promoted by the state policy. In addition, small business dominating in New Zealand is a positive factor for women doing business.

Simplicity is a key feature of both the New Zealand business and the culture of the country in general. Creating a business in itself is a simple activity that can be done in one day. All these factors - both social and cultural - taken together have the greatest impact on the involvement of women in the business process.

Thus, having compared different nations in terms of culture and doing business by women, we can conclude that, in general, the most favorable environment for involving women in business is in the countries with modern views on gender equality. The main barrier, however, which should be highlighted is a stereotype in relation to women, which has developed historically with national characteristics and their values, therefore, cultural factors play one of the most important roles in shaping attitudes toward doing business by women. Unless the attitude changes, the country will lag behind even if the state makes every possible effort.

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MANAGING CASH FLOWS OF THE COMPANY AS THE MOST IMPORTANT DIRECTION OF INCREASING THE BUSINESS' EFFICIENCY AND COST

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Abstract: *The review contains analysis of cash flow problems and their indicators. The author considers cash flows of the company to be the most important direction to increase the efficiency and cost of business. Cash management is one of the most important indicators of the company's activities and plays an important role in decision-making. Cash flow management is income and expenditure for a certain period. The purpose of cash management is to mobilize, verify and plan the company's financial resources, which is not easy. The author analyses tactics for improving cash flow.*

Key words: *cash flow management, operating profit, net profit, cost reduction, capital costs, return on investment, ROI.*

Introduction

It is difficult to overestimate the importance of cash flow for overall corporate financial health. Cash flow statement is financial reprint which provides information to investors, creditors and others, useful in making rational decisions. The ultimate success or failure of the business depends upon the amount of money received. This is the purpose of a statement of cash flows. It shows the liquidity position of the business. Projected cash budget is prepared for a project for the future 10 years or so to assess the financial viability of the project. Bankers insist on its preparation and careful analyses before deciding whether to raise funds to finance the new project.

The problems of cash management have led to the death of many successful companies. According to the corporate credit reports of Dun and Bradstreet, poor cash management leads to the fact that 90% of small businesses

fail [1]. In addition, a recent study conducted by the Business Development Bank of Canada showed that poor cash management is the biggest cause of business failure [2].What exactly is meant by "cash flow"? Cash flow is the movement of funds into and out of the business. As a result of this activity, two possible outcomes of cash flows are possible: positive cash flow occurs when the inflow of cash over a period is higher than the outflow of cash over the same period. Conversely, a negative cash flow occurs when more money is spent than generated. The generation of positive cash flow is perhaps the most important indicator of success in the functioning of a financial and sustainable business [3].

Indicators of negative cash flow

The following Indicators of negative cash flow can be singled out:

1. Late payment or failure to pay suppliers and bills. Not only late payments increase the cost of paying bills, but they also reduce your credit score and bill payments to build [2].

2. Lack of profitability from operations: profitability can be divided into two key categories; operating profit is the profit received from business operations and net profit is the profit that you generate after you consider things like taxes and depreciation [4]. To make things easier, more attention should be paid to operational profitability, since it usually reflects the money coming from daily operations.

3. Negative working capital: working capital, which is defined as "current assets less current liabilities" is an incredibly important measure for any company to which attention should be paid, since it primarily signals the short-term financial condition of the company [5],

The goal is to ensure a constant positive turnover of working capital, as this indicates that the firm has more current assets (cash and accounts receivable) than current liabilities (accounts payable and short-term debts).

4. Borrowing for the continuation of the company. In many ways on-demand debt instruments can be an excellent way to cut costs, increase flexibility, and actually save cash [3]. However, they also represent a potential for mismanagement that can exacerbate the above problems and can create significant interest payments from creditors and suppliers, which only further compresses the cash flow.

5. Survive from the cash coming day in and day out. Although it can be assumed that this type of problem affects only small companies, it often affects small and large companies alike. The reasons why companies can get into this

situation are different, but, as a rule, this is due to poor operating profitability and misuse of money, for example, for long-term assets.

Now that some cash flow problems have been identified, the next step is to understand how to strategically manage and correct these problems to ensure the longevity of the business. It is extremely important to note that such problems need to be identified and mitigated as soon as possible, as they can quickly become the end of any organization.

There are common tactics for improving cash flow [4]. Some of the tactics that can be used to correct problems with cash flows are as follows:

1. *Cost reduction.* When a company faces cash flow problems that arise from a lack of sufficient profitability from operations, reducing costs is a key element in turning around the situation. Uncontrolled, insufficient profitability can create a situation in which all the above indicators of cash flow problems appear. Therefore, in such a situation, it is necessary to take measures to eliminate the main problem. Regardless of the size of the company, discretionary and non-crucial costs can be completely eliminated. For example, it is necessary to reduce costs that their customers have never seen, and those that can affect customer experience. In specific circumstances, when cost reduction may not be sufficient to create a positive cash flow, the goal is to cut costs as long as possible without affecting the ability of businesses to deliver their products or services to customers.

2. *Delay or revision of capital costs*. Capital costs are usually defined as expenses that benefit the company for a long period of time. Many enterprises face cash flow problems because of capital expenditures in which they use cash flow from operations or their cash reserves to finance them [3]. While reinvestment come back into the company is not so bad, the problem may be due to the fact that free cash flow is necessary for transactions and using such cash flows to finance major purchases and investments, this reduces the organization's cash. Using cash for capital expenditures can create a situation where a company can become incapable of supporting business activities. This situation can become a slippery slope and can lead to problems such as the inability to pay bills on time, miss critical commitments and so on. A simple solution is to either stop such purchases, or rather, finance them using other methods, such as long-term debt, capital leasing or slowing down the rate of investment.

3. *Reduce the customer terms of payment.* If customers are provided with a loan by a company, it can present many problems in terms of cash flows. In

this case, the goal is to reduce the credit granted or to reduce the time at which the client is allowed to pay his account. If most of the sales are provided on a client loan, you should choose an alternative solution, such as using a third party to provide the loan, rather than simply reducing the loan.

4. *Focus on reducing the "cash flow gap"*. One of the main causes of cash flow problems for enterprises in any industry is simply due to the timing of cash flows. Delay with cash flow is not an official term, but this is what can be characterized as the time difference between cash and exit time. The more the gap (the difference) between when it breaks down, and the more that happens, the greater the pressure of the cash flow [4]. The delay between when money is spent against when it is received creates pressure on the cash flow at some additional level. To reduce the delay in cash flow, there are a few simple things a company can do: buy on a vendor credit, ask customers to pay advances, use common forms of lending and reduce stock levels.

5. *Analyze the return on investment (ROI).* Many companies find that they spend money on items and activities for which they have a difficult time analyzing a direct ROI to the company. Return on investment can be defined as an advantage of the company from investing money or resources in activities, part of equipment or assets [5]. It is recommended to analyze the profitability and potential return on all costs. Therefore, a strategic analysis of all costs is critical and can be an excellent way of identifying actions that do not create a positive cash flow. This method is good for saving money and allowing the company to focus on more activities that actually generate revenue.

Conclusion

Many of the cash flow problems that the company faces can be easily identified, eliminated and corrected. This requires the initiation of some difficult discussions and, possibly, the adoption of some decisions of humility. If you experience these problems, you know that you are not alone, and they can indeed be corrected if you act in a timely and systematic manner. It is recommended to eliminate cash flow problems as soon as possible.

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TAXATION OPTIONS IN E-COMMERCE

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Abstract: *The article is treating some problematic aspects of Internet commerce and offers possible solutions in the sphere of taxation and tax administration of this economic activity.*

Key words: *e-commerce; taxation and tax administration; tax evasion; a united website for Internet trading.*

Every year e-commerce as an online commercial activity in advertising and trade in goods and services demonstrates an impressive growth. People go out shopping less often, because Internet trade allows them to buy goods or services at home. We are witnessing the emergence of a new economy - the digital economy.

However, Internet commerce is facing some acute problems in the sphere taxation and tax administration.

It is worth starting with the most typical taxation problem. Its essence is that it is impossible to determine the identity of the seller and the buyer in Internet trading. Such transactions can only be tracked if a bank card is used, but most people buying something on the Internet use Internet wallets or electronic payment systems, such as *WALLET ONE*, *NETELLER* and others. That is why it is impossible to determine the subject of taxation [7; 8]. For this reason, potential taxpayers find an infinite number of ways to evade tax payments. This

problem remains unresolved everywhere in the world. It can only be solved with the development of reliable technologies, capable of ensuring access of tax authorities to operations conducted on the Internet and in the cyberspace.

The next problem, which is the most significant and difficult to overcome, is the inadequacy of Russian tax legislation in the field of e-commerce [1; 3; 6; 7]. In the first place, the Tax Code of the Russian Federation does not define what the *Internet trade* is, though this term is widely used in other official documents [6; 8]. Also, if we want to regulate the taxation of goods on the Internet sites, it is necessary to amend articles 38 and 146 of the Russian Tax Code, which relate to objects of taxation in general and objects for VAT collection, in particular [6]. These are really serious problems that cannot be solved in one month or even in one year.

In my opinion, the only way out of this difficult situation is the creation of a united and - most importantly - exclusive website for trading goods and services. This site should keep record of all kinds of goods and services that can be sold and bought on the Internet platform. This idea can be developed in several directions.

Firstly, a state website can be created: a system similar to Rosneft, Rostelecom, and Mosgortrans, functioning like a natural monopoly [2]. It means that all services and goods on this site should only be provided by the state. In this case, the tax, as usual, will be included in the cost of services or goods and transferred to the consumer. The advantage of this idea is that e-commerce in general will be concentrated in one place under control of a single subject - the state. Taxes will be paid automatically and without any possibility of evasion. Of course, such a system would be reliable and safe. Making transactions on the state website, consumers will be sure that commercial information is trustworthy and that they will get the cheese they want for their money and will not be trapped in the process.

Another version of this idea is the creation of a single state website. In this version - unlike the first one - the state will not be the only seller acting on this website; all registered and state-checked individuals can also have this status. But it is necessary that the sellers comply with certain requirements and characteristics: all of them must be individual entrepreneurs or organizations and disciplined taxpayers, their goods and services are to be provided according to quality standards. The advantage of this system is that entrepreneurs will be able to keep their income, whereas according to the first version their income would completely disappear due to the fact that the state acted on their part. This site

will register each and every seller; all commercial data will be processed by relevant public services, which will prevent sellers from evading taxes. Undoubtedly this will ensure that the site will be certified and reliable.

We can draw some conclusions on this acute problem: Internet trading is a very promising direction in our country's economy. As to taxation and tax administration in this sphere, things are worse here: Russia and Russian tax legislation are not ready for such innovations [3; 4; 5]. It seems to me that it would be logical and useful to ponder over the idea of creating a united and unique site in cyberspace as a platform for the sale of goods and services. If everything is done correctly, such a system could be very profitable for the state budget and become a major source of income. On the other hand, sellers would be assured of the legitimacy of their activities, while buyers could receive guaranteed goods and services.

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THE POSSIBILITY OF REPLACEMENT LAWYERS WITH ARTIFICIAL INTELLEGENCE

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Abstract: *The author analyses the current situation concerning the changes in lawyers' professional activity regarding the usage if digitalization in different areas of human activity. The author tries to examine all positive and negative possibilities provided by applying different kinds of electronic devices.*

Key words: *digitalization, digital technologies.*

Nowadays our country like the rest part of the world have faced the influence of digital technologies on all parts of human living. This influence becomes essential regarding to economic and legal areas because these ones first of all react on different changes in society. Lyudmila Novoselova, President of the Intellectual Property Court, on the the 2018 Gaidar Forum paid attention that "The development of digital technologies involves a significant number of opportunities and prospects, but any major opportunity is always a risk" [1].

"Digitalization" is the digital transformation of data and the use of digital technologies in any industry that has already become an integral part of modern development process. According to experts' opinions, the volume of world data will have increased more than four times by 2025. Nevertheless, there are both good prospects and serious challenges that we should be prepared to.

The program called "Digital economy of Russia Federation" was discussed earlier at the meeting chaired by President Vladimir Putin. "The program goal is to organize systemic development and rollout of digital technologies across all spheres of life - in economy, in business as social activity and in public administration, social sphere and municipal economy," the prime minister said.

However, are there any aspects that we should be afraid of? Artificial intelligence (AL) is entering into the field of jurisprudence. AI is already able to find the right documents and references much more effective than people are, MIT Technology Review states [2]. According to the analysts' report, 22% of the lawyers' and 35% of the law clerks' work can be automated, but this does not mean that it will deprive lawyers of work. The AI algorithm can learn how to find references to certain laws more successfully than a certified lawyer can. JPMorgan announced that they are using software called Contract Intelligence, which can make an analysis of legal documents for a few seconds, which

previously took 360 thousand hours of work time [3]. Now the main question here - will the AI replace lawyers, leaving difficult tasks to people?

The digitalization of the economy, although providing incentives to increase labor productivity, can also lead to the disappearance of a number of professions. This concerns lawyers professional activity too. The best example of such interference was noticed by the head of the Federal Service for Intellectual Property (Rospatent) Grigory Ivliev who mentioned examples of innovative technologies interacting productively with the conventional system of intellectual property rights registration – Rospatent's new digital projects in the Information Infrastructure category approved by the Prime Minister on December 18, 2017. Mr. Ivliev also said that Rospatent actively uses blockchain technology in state registries, where it guarantees data unchanged during the entire storage period, but with the possibility of operational access [1]. Nevertheless, the disadvantages of digitalization are inevitable. The risks of violation of patent owners' exclusive rights are increasing; for example, with 3D printing technologies, civil law needs to include a clause prohibiting the use of digital copies without the consent of the right holder.

The rapid pace at which the digital economy is evolving is a result of the technologies and innovations that were developed over several decades and that are becoming more pervasive. High-speed broadband access to increasingly powerful computing and storage capacity, and drastically reduced costs of ICT equipment and data management, have facilitated the process of digitalization. Key technologies underpinning the evolving digital economy include advanced robotics, artificial intelligence, the Internet of Things (IoT), cloud computing, big data analytics and three dimensional (3D) printing.

AI represents evolution rather than revolution. Since the first 'robot lawyers' started receiving mainstream press coverage, many law firms, other legal service providers, and law colleges are being asked what they are doing about AI. But nevertheless it is considered that technology is transforming the legal profession, but it will not make the professional judgment and expertise of lawyers obsolete. It will enable those who adopt, employ, and leverage it to provide better and more cost-effective legal services and representation for their clients.

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TRANSFERRING RUSSIAN PRICING LEGISLATION TO THE OECD PRINCIPLES

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Abstract: *The article deals with Russian pricing rules that now require companies operating in Russia to file annual documentation in compliance with new regulatory guidance. It also considers that these new rules can provide for advance pricing agreements with up to a five-year exemption from documentation requirements.*

Key words: *Pricing legislation; pricing control; pricing methods; transactions; documentation requirements.*

Generally, criterion of defining enterprises as associated are based on the OECD principles. It is about the participation of one enterprise in another or participation of the same person in both enterprises. Should any person own the share of the capital in an enterprise or have a practical ability to control its activity the person and enterprise are considered associated too.

Nevertheless according to the Russian Federation Tax Code individuals can also be associated if they are spouses, parents and children, brothers and (or) sisters, guardian and fosterling [2]. Moreover, court may also determine parties as associated if the relationship between parties could affect the result of the transactions between these parties, even in the lack of statutory criterion.

However, for tax purposes related enterprises are not the only subject to transfer pricing control. Cross-border transactions with oil and oil products, ferrous and non-ferrous metals, mineral fertilizers, precious metals and stones

and cross-border transactions with foreign entities registered in certain tax-low jurisdictions according to the blacklist established by the Ministry of Finance or Russian organizations if it sets permanent establishment in such jurisdiction. But these transactions may be considered as controlled only if the total revenues under these transactions exceed 60 million rubles in total in a calendar year.

The following transactions are excluded from controlled transactions list:

- Transactions between related enterprises not exceeding 1 billion rubles in a given calendar year;
- Transactions between related enterprises in which one of the parties is a taxpayer of mineral extraction tax or a resident of special economic area, or freed from profits tax (or uses null tax rate) if it doesn't exceed 60 million rubles in a given calendar year;
- Transactions between related enterprises in which one of the parties applies certain special tax regime (Single agricultural tax or Single tax on imputed income) not exceeding 100 million rubles in a given calendar year;
- Transactions between members of consolidated taxpayer group;
- Transactions where both parties are registered and have all operations in the same region and do not have tax losses, including loss carry-forwards.

Factors determining comparability of controlled and uncontrolled transactions are similar: the characteristics of property or services transferred; the functions undertaken by each enterprise with respect to the transactions; the contractual terms; the economic circumstances in which transactions take place; the business strategies pursued by the associated enterprises in relation to the transactions.

The Tax Code implements much more different specified factors to determine comparability but all of them are connected with basic principles listed above and also unfolded in the OECD Transfer Pricing Guidelines. However for comparability analysis Russian comparables are needed, and if there is no Russian comparable taxpayer must prove it in order to use foreign comparable. And the rules prohibit tax administrations from using external comparables if internal comparables exist.

Approved by OECD transfer pricing methods are also used by Russian tax administrations. These are comparable uncontrolled price method (CUP method), resale price method, cost plus method, transactional net margin method and transactional profit split method. CUP method all other conditions being equal is preferable method both in OECD Guidelines and the Tax Code of the

Russian Federation as a most direct way to determine market price. Methods could be combined and are not obligatory for usage by taxpayers to justify their pricing policy. It is mostly developed for tax administrations to create a methodology for transfer pricing.

In Russian legislation the notion of "market price range" is used. Before 2012 20% safe harbor for price deviations has existed and now it's replaced by this range. It was implemented, as well as profitability range, to determine in which limits transfer prices can fluctuate and to what limit it should be adjusted in case of considering these prices non-market. It is not a major difference from OECD principles, it is just more specific way to determine prices used by associate enterprises and therefore tax base. "Market price range" is equal to Arm's Length Range.

Transfer pricing adjustments are permitted with respect to the following taxes: profits tax, VAT (if one of the parties does not pay VAT), mineral extraction tax (if it is levied on ad valorem basis) and income tax.

Documentation requirements are also the key factor affecting the practical side of controlled transactions. Obviously tax administrations should have right to request reliable information from a taxpayer. So, they have in Russia. Another question is how extended should it be. First taxpayer must choose what kind of report he wants to give: short or more extended. In the first case information about enterprises involved in transaction and their functions must be given to tax administrations so it provides comparability and functional analysis on its own. And, of course, you have almost no chances to challenge their decisions on this issue. Anyway, it would be a hard nut to crack. In the second case, the taxpayer carries burden of proof by himself and on the one hand it will be more expensive to provide but you will have the grounds to protect your point of view in case of misunderstanding with tax administrations. The transfer pricing documentation may be requested no earlier than 1 June of the year following to the year when transaction takes place [1].

Special department within the Federal Tax Service, the Russian tax administration, is forming to perform a transfer pricing audit. It will be separate from regular tax audit process. And it can create particular differences for taxpayers: these two audits can take place in a very different time and be quite independent.

Advanced pricing arrangements were adopted in 2012 along with new Tax Code Chapter. It is a special agreement between taxpayer and tax authority on pricing rules and application of transfer pricing methods. This mechanism

was taken from OECD Transfer Pricing Guidelines too. It's the part of mutual agreement procedure and it is quite similar to rules set in OECD Guidelines. However, there are no specific rules for different objects in the Tax Code of Russian Federation, and in OECD Guidelines there are special considerations for intangible property and intra-group services. It can become a problem in near future, although it makes system less complicated and embarrassing.

Transfer pricing legislation is in the state of constant changes. OECD is intended to simplify transfer pricing rules, strengthen the guidelines on intangible issues and improve the efficiency of tax dispute resolution. It is fair; because application of transfer pricing principles is quite tricky for developing and transiting economies in terms of lack of resources which tax authorities of these countries can accumulate.

Also, transfer pricing management brings a lot of administrative challenges. Improving the management of tax risk and developing relationships between tax administrations and large businesses have been primary focuses in recent years. An advance pricing arrangements (which are used in the Russian Federation now) and mutual agreement procedures has the potential to further improve the efficiency of transfer pricing audits and enquiries.

Global community realizes that tax risk management is important and selection of appropriate targets for transfer pricing audits or enquiries is vital. It is a problem of finite tax administrations' resources again. So searching for the best and most effective sources of information by tax administrations to identify transfer pricing risks is one of the major trends in today's transfer pricing global policy.

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ECONOMÍA DIGITAL EN CHILE: PREMISAS Y OBSTÁCULOS PARA INNOVAR

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Abstract: *The purpose of this article is to identify prerequisites of intensive development of Chile's digital economy and determine which aspects of country's economy are still not innovative enough.*

Key words: *Chile, digital economy, technologies, 4G, mobile communications.*

Chile es un estado en el sudoeste de América Latina, con una población de alrededor de 18 millones de habitantes. A pesar de los indicadores del PIB relativamente moderados (0.37% del PIB mundial), el desarrollo de la economía de Chile es de naturaleza innovadora, y según el nivel de desarrollo de la economía digital Chile ocupa el primer lugar entre los países de América Latina. Según *Networked Readiness Index 2016* Chile ocupa el lugar 38 en el ranking global entre los países más digitalizados. En el informe *The Digital Evolution Index 2017* los expertos han indicado Chile entre las "naciones destacadas" [1], o sea, entre un grupo de países con la economía digital más avanzada y las tasas más altas de desarrollo de la economía digital.

El principal factor que contribuye al desarrollo exitoso de innovaciones en el ámbito económico en Chile es, ante todo, el enfoque sistémico del gobierno a las reformas necesarias en el marco del programa *Agenda Digital 2020*. Así como una serie de iniciativas y proyectos establecidos en el programa del ecosistema digital 2017-2030. Uno de las industrias de alta tecnología y de mayor crecimiento en Chile es la industria de servicios de telefonía móvil y banda ancha. Esta industria tiene la demanda de inversión más alta en el país. Según las previsiones durante la próxima decena en el sector se invertirán cerca de 13.5 mil millones de dólares. En el año 2017, el número total de conexiones a internet fue de casi 16 millones de abonados, la tasa de penetración fue de 88,2%. Sin embargo, aún persiste una brecha significativa en el número de abonados entre las zonas urbanas y rurales (un promedio del 20% del total). En la actualidad, 4G se utiliza para el 47,6% de las conexiones inalámbricas, y para el año 2020 se prevé un aumento de hasta (el 62% de todas las conexiones móviles) [2].

Sin embargo, en este sector hay una serie de problemas relacionados al acceso a internet. En primer lugar, son la diferenciación en ingresos, el número de suscripciones de banda ancha fija y móvil mucho más bajo que en la mayoría de países Latinoamericanos [3], así como la infraestructura menos desarrollada

en las regiones del sur del país. Con el fin de resolver estos problemas el gobierno tiene previsto subvencionar 100 millones de dólares en la creación y mejora de los servicios de transmisión de datos en las regiones del sur del país. En el marco de este programa se deben encaminar 3000 km de fibra óptica submarina y 1.000 kilómetros de fibra óptica terrestre, para unir más de 30 localidades de la Patagonia chilena. En el ámbito de la economía Digital, el estado está trabajando en tres aspectos principales: la creación de productos de alta tecnología y servicios para la modernización de las industrias tradicionales y el incremento de su productividad; la creación de condiciones para la creación de ciudades inteligentes; la promoción de la iniciativa empresarial en el ámbito de la innovación. Por ejemplo, la creación del proyecto "Startup Chile" que concede subsidios de las empresas jóvenes a una suma de 40 mil dólares y un visado con permiso de trabajar en sus ideas innovadoras en el país. Es financiado por el estado, se estima que sus startups tienen un valor total de 1,4 millones de dólares [4].

Resumiendo, cabe señalar que la economía digital chilena en la actualidad constituye el 2% del PIB. Para el año 2020 se espera un incremento de 3,5%. En muchas esferas de desarrollo innovador Chile es líder en América Latina, es el país más atractivo de la región para llevar a cabo el negocio innovador [5]. Todo lo mencionado permite considerar que la economía de Chile tiene buenas perspectivas para introducir y desarrollar innovaciones, que, sin duda, se reflejará positivamente en su competitividad.

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DIGITALIZATION OF RUSSIAN ECONOMY

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Abstract: *The article describes some aspects of creating favorable conditions for the development of national economy based on digital infrastructure.*

Key words: *digital economy; digital technology; information infrastructure, digital ecosystems.*

The concept of the *digital economy* is gaining popularity all over the world. And Russia is no exception. At the moment digitalization is an actual direction of development of the national economy. It is necessary to create favorable conditions for the digital economy based on *digital infrastructure* [2].

The development of different technological ecosystems such as unmanned vehicles, telemedicine, and remote education will allow an additional increase in the economy from 0.4 to 0.9% of the GDP per year. The results of this scope can be achieved only by creating a digital infrastructure capable of providing current and future needs of citizens, businesses and public administration in the transmission, storage and processing of data [3].

The Ministry of Communications of Russia in the framework of the program *digital economy* presented a plan of activities related to *information infrastructure* for 2017-2020. There are three main directions of *digital infrastructure* outlined in this document. At first, communication networks should satisfy the needs of the economy for the collection and transfer of personal data of citizens, information used by businesses and authorities, according to technical requirements of digital technologies. Secondly, Russian infrastructure of data storage and processing should provide affordable, sustainable and cost-effective digital services for citizens, businesses and authorities. And the third goal is the development and operation of digital data platforms to meet the needs of citizens, businesses and government. There are many ideas how Russia will adapt new technologies for daily routine. It is planned to create new data processing centers and geoformation systems [2; 3].

The number of Data Clearing House Centers in federal districts should increase to eight in the period from 2018 to 2024. In the same period the share

of Russia in the global volume of data collection services should increase by 10%. Ten industrial digital platforms for different economic branches will be created by 2024. Apart from that, the implementation of United Electronic Cartographic System is planned to be finished in 2024 [4].

The development of digital ecosystems related to unmanned transport, virtual reality platforms, telemedicine, and the Smart City can additionally increase yearly growth of the GDP by 0.4% - 0.9%.

Government work plan includes 17 basic goals to be achieved until 2020. The main points of this plan are:

- To provide wide-band Internet access for different public administration branches, such as medicine, education and municipal services;
- To create a Global Multifunctional info communication satellite system for Russia and the whole world;
- To ensure storage and manipulation of the data created by the government and by other state authorities in a cloud database [5; 6].

It is fundamentally important to provide unlimited Internet service everywhere, because this service is crucial for achieving progress in the future digital economy. It is also necessary to ensure legal regulation of the digital economy in the spheres of e-commerce, data protection, and intellectual property and technology transfer. It is important to create a favorable business platform for the development of global digital companies in the digital economy [1].

The total amount of financing for the Information Infrastructure project is about 427 billion rubles.

Thus, the information infrastructure is a digitalization program that should be aimed at reducing production costs for entrepreneurs and citizens, ensuring the freedom of movement of goods, services and capital, comprehensive cooperation of economic entities in the digital area.

Summing up, it should be noted that we have big plans and hopes for a digital economy and we have much to do on the way to success.

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PUBLICIDAD DIGITAL EN AMÉRICA LATINA: NUEVAS OPORTUNIDADES DE NEGOCIO

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Abstract: *Latin America is a rapidly developing part of the world, and digital advertising is spreading more and more into its territory. The article analyzes the indicators of this kind of advertising and shows the possibilities of monetization for various types of it.*
Key words: *digital advertising, mobile advertising, monetization, Latin America.*

Todo en el mundo está en desarrollo: la sociedad, la política, la economía. La publicidad no es una excepción. Año tras año la publicidad toma nuevas formas, mientras que el número de formas de colocarla está en auge constantemente. Esa *cuestión* es especialmente importante porque, en primer lugar, cada día más y más personas acudan a modernos medios de comunicación. Al mismo tiempo las empresas tienen cada vez más oportunidades de divulgar la información sobre los bienes y servicios con el fin de atraer al mayor número de consumidores.

Según la investigación realizada por *Opera Mediaworks*, América Latina se ha convertido en el líder en términos del crecimiento de la publicidad móvil, y tales países como México, Brasil y Argentina demuestran los índices más altos desde el punto de vista de su uso. Es justo mencionar que hoy en día la publicidad móvil ocupa aproximadamente el 8% del mercado global de publicidad digital [1]. Es de esperar que la proporción del gasto en publicidad móvil en 2018 aumentará hasta el 54% ya que el teléfono móvil se ha convertido en el principal dispositivo que emplean los usuarios para conectarse

a Internet. Además, la popularidad de la publicidad en video continúa creciendo. Así Brasil, Colombia y Chile muestran una mayor participación en el video: más de 1:1, y en Chile, casi 4:1 [2]. Asimismo, el mercado publicitario continúa creciendo en las redes sociales.

Los usuarios de dispositivos móviles en América Latina son muy similares a la audiencia global en términos del tiempo promedio por día que las personas pasan en la web móvil. Sin embargo, Argentina y Chile tienen el índice de los usuarios de la red móvil más notable: pasan en la web móvil entre 5 y 7 días a la semana. Es decir, alrededor del 40% de los usuarios de dispositivos móviles están en esta categoría [1]. Por otro lado, el número de *usuarios* de telefonía móvil en Colombia es el más bajo.

Para los publicistas es muy importante saber qué tipo de publicidad digital es más efectiva. En consecuencia, necesitan saber dónde colocarla, es decir, los sitios y las aplicaciones más populares que se visitan. En Latinoamérica el tráfico móvil es alto en sitios y aplicaciones de deportes, casi tres veces más que el promedio mundial. Pero se descubrió que el entretenimiento, aunque tiene menos tráfico, está muy bien monetizado, porque los usuarios están en un estado de "querer" y les apasiona el contenido móvil.

Además, América Latina tiene el mayor potencial de monetización, en comparación con otros mercados en crecimiento tales como países ACP. Para comprender el potencial de monetización es importante comparar el porcentaje de los ingresos totales recibidos por los editores con el porcentaje de visionados totales. El número promedio de los visionados móviles en esta región generan más ingresos que cualquiera otra región, con un puntaje de 1 a 0,87 (promedio mundial es 1: 1) [2].

En enero del año 2017 la subdivisión mexicana de la corporación *Uniliver* lanzó una campaña para promocionar el helado *Mordisco* en el mercado de *snacks*. Junto con la agencia de publicidad *Iniciative* con el apoyo de *Cadreon México* y *Google*, la publicidad del producto comenzó a transmitirse en una variedad de plataformas de Internet. La tecnología especial *Vogon* permitió integrar dinámicamente texto, audio e imágenes. Cabe señalar que tal tipo de publicidad apareció en América Latina por primera vez. Gracias a eso las ventas de la compañía representaron un incremento de 37%, y el helado *Mordisco* se convirtió en el más popular en México [3].

En virtud de lo expuesto se puede concluir que en los mercados emergentes como es el mercado de América Latina la publicidad digital abre oportunidades ilimitades a negocios capaces de agregarlas. Se puede afirmar que

este tipo de publicidad cuenta con un enorme potencial, revelación del cual aumentará el flujo de inversiones en esta industria junto con los beneficios económicos para negocio.

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PROBLEMS OF TAXATION IN RUSSIA

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Abstract: *The main purpose of this article is to investigate the problems of taxation in Russia and the prospects of overcoming this situation. Moreover, the article shows flaws of the current progressive tax system and proves its purely fiscal character.*

Key words: *Russian tax system; tax problem; progressive tax system; progressive tax scale; tax environment.*

It is obvious that a progressive system allows government to collect more money from higher income earners. In other words, progressive taxation allows government to collect money from those who can afford to pay, and, as a result, helps create a more fair society. Those taxes should be used to finance education, medical services, various social programs, and provide assistance for needy people.

Wealthy people sometimes can be emotional and may be not ready to accept higher taxes while poor people are quite happy about increased taxes for rich people. It seems appropriate to quote from "The Wealth and Poverty of Nations" by D. Landis: "The peasant Ivan is jealous of his neighbor Boris

because he has a goat. All of a sudden, the fairy comes to Ivan and offers to fulfill one of his wishes. What did he wish? The Boris's goat death." The logical conclusion is that this short story clearly shows people's opinion of progressive taxation.

It should be noted that taxation problem is closely connected to social policy. It is fiscal policy that a real effective tool ensuring successive implementation of social policy. Many economists point out that a considerable disparity in incomes of citizens is a main reason for fragmentation of the society. And this, in turn, causes political and economic instability. For example, social inequality when rich people's incomes skyrocketed, and the real wages of middle class remained unchanged since 1970 could be regarded as one of the main causes of the global financial crisis in 2008 [2]. This wage stagnation has forced people to get deeply indebted to meet the ever-increasing consumption standard. The results are not surprising. The increase in household debt (% of GDP) makes the economy vulnerable to shocks. Moreover, there is an opinion that the increase in inequality reduces economic growth by creating barriers to social mobility.

Taking into account the above, it is worth stressing that a progressive tax system is really a powerful tool for redistributing income between the upper, middle and lower class. Those individuals who earn more should pay more into the federal budget. This helps to narrow the income gap. Nevertheless, prior to introducing the progressive taxation system, it is necessary to determine how the redistributive function will work for taxpayers, in particular for needy population groups which should be provided with additional social benefits, different grants. Also, it is important to re-direct "excess profits" in proper investment areas.

Russian experience in the field is characterized by numerous discussions on the return to progressive taxation the introduction of the flat tax in 2001 in chapter 23 of the Tax Code. Initially, the introduction of flat taxation was considered as a temporary measure for the period of 10 years, but it has not been not cancelled as yet. As a whole, flat tax and the abolition of all interest rates higher than 13% mark an important milestone in the Russian tax system reform.
Nowadays there are some progressive taxes in Russia, for example, the luxury tax or a system of penalties adopted in different regions of the country. Higher taxes for rich people is the major principle in the current tax reform. We should not forget that in the Tax Code states that fiscal system should reduce the gap

between different population groups. It is evident that to reduce the gap with a flat 13% income tax rate can not be achieved.

As a rule, the Gini coefficient is used to assess the income inequality. A high value of the Gini coefficient indicates the need for redistribution of income through the introduction of a progressive personal income tax scale. The experience of developed countries such as Norway, Denmark, Sweden may be used illustration purposes: it is known that the Gini's coefficient there is less than 0.25. At the same time, in Russia it ranges from 0.45 to 0.5. This fact indicates a rather high inequality. In this connection, we consider that it is necessary to introduce a progressive scale of personal income tax in Russia.

The Russian people have some doubts as to government increase in taxes. In citizens' opinion, raised money will not be spent effectively. We should also bear in mind that a significant increase in taxes may reduce tax collection. According to one of the most influential liberal U.S. economists - Christina and David Romer - the effective tax rate should not exceed 33%. The introduction of progressive scale of personal income tax with a maximum rate of 45% (the average rate in Western countries), will not bring the desired effect due to mistrust of taxpayers to fiscal authorities. We suggest 30% rate as a maximum rate of progressive tax in Russia [1].

The progressive scale of income tax should be introduced gradually, with a transition period with softer tax conditions. It is reasonable to start introducing the new taxation system in Moscow, St. Petersburg where people are wealthier. Furthermore, in the case of tax evasion, economic agents will change the place of tax payment. They will choose smaller towns and this vill have a positive effect on the budgets of local communities.

In our opinion, the progressive scale of taxation in Russia may be built in the following way:

- To begin with, it is necessary to introduce in the Tax Code the concept of "non-taxable minimum," which, according to our proposal, should be equal to the minimum subsistence income (9776 rubles per capita).
- Next, it is important to develop draft scale taking into account the average salary for country and region. Moreover, we should keep in mind the high differentiation of incomes and a significant percentage of low-income citizens. In Russia about 47% of the population falls into the group with the income less than 300000 rubbles.

Below 100,000	Negative tax

From 100,000 to 300,000	**10%**
From 300,001 to 500,000	**15%**
From 500,001 to 1,000,000	**20%**
From 1,000,001 to 3,00,000	**25%**
Higher than 3,000,000	**30%**

Table 1. Possible progressive scale of taxation in Russia.

Social benefits would be provided for people whose income is less than 100,000 rubles per year. In this case, their taxes will be "negative".

According to the calculations of economists, the effectiveness of the new measures would bring about 4 trillion rubles in the federal budget. This money can be use to improve the lives of 60% of the working population or 32 million people.

Additionally, to ensure the effectiveness of social function, the government needs to focus on supporting lower-income individuals. Secondly, the progressive scale in Russia should be designed in a way to provide a sustainable growth of the Russian economy, reduce the inflation and unemployment.

To sum up, amendments in the Tax Code will allow building the progressive tax scale. This measure will help increase the budget revenues by 4 trillion rubles. The progressive taxation will contribute to the economic development. It will also provide additional benefits and thus reduce social tension. The proper implementation of this policy will reduce the tax burden on small and medium business. The suggested measure will be helpful in achieving fair taxation, the principle put forward by Adam Smith.

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RUSSIA AND CHINA: FRIENDS OR ENEMIES?

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Abstract: *The article describes some aspects of Sino-Russian relationship. The authors analyze the history of the relations between Russia and China and the current situation considering the advantages of these relations and some problems the two countries have nowadays.*

Key words: *Russia, China, Sino-Russian relations, diplomatic relations.*

Over the last 30 years, China has made a historical leap out of backwardness towards becoming a modern, developed society. The country is still facing many challenges, but one thing is clear: China is transforming itself from a poor, politically unstable country shaken by various vicissitudes into a powerful state capable of exerting significant influence not only on regional politics, but also on global politics. During the same period, Russia has grown economically weaker although it remains a major and influential state. Friendship with China is extremely important for Russia's international interests. Furthermore, strategic cooperation between the two nations could shift the balance of power in the world.

Diplomatic relations between the People's Republic of China and the Russian Federation dramatically improved after the dissolution of the Soviet Union and the establishment of the Russian Federation in 1991. The two countries share a long land border which was demarcated in 1991, and they signed a Treaty of Good-Neighborliness and Friendly Cooperation in 2001.

Everybody talks about Russia and China as friends who can fight together against the West, but some experts think that we are enemies. Although Russia is more connected with Europe due to its infrastructure, market, investments and so on, they outline some advantages for Russia from cooperation with China which can make them real friends. Moreover, the restoration of agriculture in Russia can to become an alternative to the raw-material economic model, which is not easy for Russia, while China has great experience in this field. China can help our country in the development of high technologies. Chinese experts say that Russia is weak in the sphere of innovation. China, on the contrary, calls high technology its "natural habitat" so it can provide invaluable assistance to Russia.

Some Russian experts say that both countries are of equal scales, they occupy leading positions in the world, despite all the difficulties. Russia and China are in need of development, and they are capable of mutual stimulation

[1]. Both countries traditionally have close political positions which are an alternative to the approaches of the Western civilization, and this fact also helps to develop relations between these two countries.

As for problems, we can say that China is not regarded as a genuine military threat to Russia today. However, an examination of Russia-China relations reveal that mutual support is not always a given. Russia, while selling the People's Liberation Army (PLA) key defense components, has also failed to back China's territorial claims in the South China Sea [2]. Russia's wariness of China's growing military power was also manifested in Moscow's military maneuvers in the Russian Far East in July 2013, the largest of its kind in the post-Soviet era. Central Asia remains a sphere of rivalry, although Russia has controlled the region since the nineteenth century and still considers it its "near abroad," albeit one that China is fast integrating into its economic orbit. In 2012, all Central Asian states except for Uzbekistan traded more with Beijing than Moscow. Moreover, according to the article in a Hong Kong daily Wen Wei Po, China will wage six wars to reclaim territories lost by it. What is more important the Sixth War is called "Taking back lands lost to Russia" (2055 to 2060) [3]. So we can say that while Far East belongs to Russia, China remains one of our main and dangerous enemies.

In conclusion it is important to note that Russian-Chinese relations are at the peak of their development. This does not mean that there are no problems between the two countries and peoples. However, a close, constructive and cooperative relationship is fully in accordance with the interests of both Russia and China. As the official Representative of the Ministry of Foreign Affairs of the PRC said: "China and Russia are two countries that have an important influence in the world, have a special responsibility for maintaining peace on the planet and promoting joint development".

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DIGITALE WIRTSCHAFTSPERSPEKTIVEN

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Die Informationstechnologien eröffnen uns enorme Möglichkeiten. Man kann kommunizieren, Waren bestellen, Rechnungen bezahlen und arbeiten über das Internet. Maschinen erleichtern einer Person von schwierigen Arbeiten und reduzieren die Anzahl der Manager. In dem Artikel werden drei Schritte zur Digitalisierung Unternehmen genannt. Neue Trends der Zukunft werden analysiert.

***Key words**: Informationstechnologien, Digitalisierung, Künstliche Intelligenz, Innovationen.*

Die neuen Informationstechnologien treiben die globale Vernetzung voran. Sie verändern die Gesellschaft und Wirtschaft. Multimedia dringt in unseren Alltag ein. Die Nutzung der neuen Informations- und Kommunikationstechnologien hat sich in den letzten Jahren gut entwickelt.

Der Computer (PC) zu Hause ist heute keine Seltenheit mehr. Die Zahl der Internetnutzer wächst weltweit zu. Die Computertechnologien eröffnen uns kolossale Möglichkeiten. Man kann im Internet kommunizieren, die Waren oder Dienstleistungen anbieten, die Verträge abschliessen und so weiter. Der Gebrauch der Neuen Medien (E- Mail und SMS) spart Zeit, man kann zum Beispiel per elektronische Post mehrere Personen erreichen.

Der Kontakt vereinfacht die Kommunikation, aber das führt zur “Gefahr der sozialen Isolierung”. Jeder zweite Russe erledigt seine Bankgeschäfte online. Die meisten kaufen im Internet. (Bevorzugt werden elektronische Geräte Online-Schopping.) Häufig wird das Internet genutzt, um sich über die Produkte zu informieren.

Die Auswirkungen der Digitalisierung auf Unternehmen sind unterschiedlich. Man muss die Erfahrung der Branchen-Experten für Unternehmen nutzen. Die Roboter haben die Menschen ersetzt. Welche Rolle spielt der Faktor Mensch in der digitalen Fabrik überhaupt noch?

Der Mensch wird in der digitalen Fabrik nicht überflüssig. Man nimmt dem Mitarbeiter die Arbeit nicht weg. Man muss ihn von schwierigen Arbeiten entlasten. Mensch und Maschine werden in Zukunft Seite an Seite arbeiten. Genau da liegen die Potenziale der Zukunft [2].

Die Unternehmensführung muss die Mitarbeiter über die Vorteile der digitalen Prozesse informieren. Man legt Wert auf Kunden- und Angestelltenerfahrungen. Die Technologien helfen auch die Kompetenzen in der Belegschaft richtig kombinieren.

Erfolgreiche Unternehmen sind digitalisierte Unternehmen. Neu ist die Geschwindigkeit, mit welcher die Digitalisierung immer mehr Bereiche unseres Lebens erfasst. Sie eröffnet viele Möglichkeiten, Technologien in der Wirtschaft einzusetzen:

- Geschäftsprozesse sind heute voll digitalisiert, effizient und günstig.
- Neue Geschäftsmodelle werden geschaffen.
- Service statt Produkt, Mobilität statt Fahrzeuge.
- Im Kundendienst gibt es individuelle Kundenerlebnisse:
- Personalisierte Informationen, alles aus einer Hand [1].

Wer glaubt, die Digitalisierung betreffe ihn nicht, spielt der Konkurrenz in die Hände! Was wir heute wissen, ist morgen veraltet. Im Zentrum steht die Frage: Wie muss man starten?

Das ist auch kein Erfolgsrezept, doch drei konkrete Schritte. Man muss Drei Schritte in die Digitalisierung nennen:

1. Digitalisierung ist Teil der Unternehmensstrategie

Die Digitalisierung soll in der Unternehmensstrategie verankert sein. Die Geschäftsleitung entscheidet: Was wird digitalisiert? Das Management braucht eine Fehlerkultur, um zu lernen.

2. Geschwindigkeit und Iteration als A und Z

Eine Firma kann nicht nur an einem Produkt arbeiten. Es ist besser, ein Projekt in iterativen (Beta)-Versionen zu realisieren. Man muss es laufend verbessern. Man muss neue Technologien verwenden. "Time to Market" kann man verkürzen.

3. Digitale Kompetenzen und Transformation fördern

Unternehmen sollten ihre Mitarbeiter in die Transformation einbinden. Die Transformation betrifft alle: den Praktikanten und den Verwaltungsrat. Um das volle Potenzial der Digitalisierung zu nutzen, muss man Unternehmen gut beraten [3].

Die hohe Geschwindigkeit, die Digitalisierung bedingen ein Umdenken im Führungssystem. Strenge Hierarchien und Kontrollsysteme funktionieren schlecht. Netzwerk fördert einen Aufschwung.

„Unternehmen aller Größen und Branchen sollten auf den weiter rasant fortschreitenden technologischen Wandel vorbereitet sein und sich klarmachen, was diese Entwicklung für sie bedeutet.“ Olaf Acker.

Zu den neuen Trends der Zukunft gehören:

- 3-D-Druck-Verfahren, (das ist ein Potenzial für die nächste industrielle Revolution)
- Tech-Neuerungen Augmented Reality und Virtuelle Realität
- Künstliche Intelligenz, das Internet der Dinge,
- Blockchain
- Drohen und Roboter.
- Das sind Kernthemen der Digitalisierung.
- Innovationen beeinflussen Menschen und Märkte.

Das sind die sinkenden Kosten für Technologie und der leichtere Zugang für Gründer und junge Innovatoren. Und die Technik wird durch eine weltweite Vernetzung von Industrie- und Entwicklungsländer globalisiert. Auch der steigende Komfort, Multiplikationseffekte, und Technologien fungieren als Innovationsbeschleuniger.

Zusammenfassend lässt sich sagen: Mit Künstlicher Intelligenz, Augmented Reality, Virtual Reality, dem Internet der Dinge, Blockchain, 3-D-Druckern, Drohnen und Robotern muss man acht bahnbrechende innovative Technologien nennen. Sie werden in naher Zukunft die Entstehung neuer Berufe nach sich ziehen [4].

Doch auch die Kehrseite wird mitgedacht:

Der steigende Einsatz von Robotern wird ihre Belegschaft der Führungskräfte in den nächsten fünf Jahren reduzieren.

„Die acht technologische Neuerungen erfordern eine entsprechende Änderung in der Personalstrategie“, sagt PwC-Digital-Experte Olaf Acker.

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THE VICIOUS CIRCLE OF BRAIN DRAIN IN RUSSIA

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Abstract: *The article describes some aspects of intellectual migration in Russia. The analysis of the "brain drain" problem in Russia at the present stage is made. The estimation of the consequences of intellectual migration for national economy is given.*

Key words: *migration, brain drain, intellectual capital, donor countries, intellectual potential.*

Over the past two decades, Russia has been an active participant of the foreign intellectual labor market. Russia acts as a donor country towards countries-leaders of the Western world and other rapidly developing nations, supplying host countries' markets with the intellectual labor. With regard to the post-Soviet space and for some neighboring Asian countries our country is a recipient country, i.e. an importer of human resources with a high level of educational potential.

Due to the active demand for highly educated personnel with exclusive professional skills, the most capable, talented and educated citizens - the country's intellectual elite - are widely offering themselves as "intellectual goods". In particular, developers of various types of high-tech and research-intensive products are in demand, as well as professionals, engaged in a wide range of natural sciences and STEM (science, technology, engineering and mathematics) disciplines. Even more worrying is the fact that, according to the report of the Committee of Civil Initiatives [4], those who leave, as a rule, are young professionals, who have received professional education and practical training, i.e. scientists with great creative potential who are at the peak of professional productivity.

In the recent past, Russian science was characterized by a tradition of transferring knowledge and professional experience from the older generation of scientific "intelligentsia" to young people. But, as the "brain drain" violates the established order in the scientific community, many unique scientific schools continue to disappear in Russia. Thus, intellectual migration initiates the disintegration of the connection of times and generations.

The outflow of highly qualified specialists leads to the degradation of intellectual potential and the decline of the country's economy. There is a vicious circle: every next generation is obliged to learn and acquire practical skills from people with increasingly low qualifications. As a result, the country's

productivity is declining; the investment attractiveness of high-tech industries is falling, and the economy produces only goods with low added value. Losing a critical mass of highly skilled and motivated people to the brain drain, the country finds itself in a vicious circle of labor and production degradation. The way out of it is much more resource-intensive than creating the right conditions for talented people to work while they still reside in our country [1].

On the other hand, the number of foreign students and their contribution to the Russian economy are insignificant in comparison with Russia's possible export of educational services. The inflow of minds from abroad assists in the introduction of innovations and the development of science-intensive technologies, besides, it replenishes the shortage in professional cadres in other most needy sectors.

After studying at Russian universities many foreign students learn Russian as a means of everyday and professional communication, they are familiar with national legislation and customs, which contributes to their successful integration into society. This gives them a significant advantage over other immigrants in getting employed. After completing their studies in Russia, many migrants occupy key positions in public administration, business, and the scientific sector of their own country, which makes it possible to establish mutually beneficial economic and other relations with foreign countries. Some foreigners remain in Russia with the intention of further obtaining citizenship, which is insignificant but improves the demographic situation of the country [2, p. 513].

Temporary emigration of students, post-graduates and professors for carrying out scientific research and teaching activities improves the qualifications of domestic scientists and contributes to Russia's integration into the global educational, scientific and technical spheres. In addition, emigrants facilitate the dissemination of domestic goods and services on the international market. Intellectual emigration gives an impetus to the development of the domestic labor market - Russians have an incentive to obtain a competitive education in order to get a job abroad [3, p. 303].

Thus, intellectual migration from Russia, as a country of low population, is becoming increasingly dangerous due to the significant losses of its highly skilled workforce, which hampers the development of the economy for many years.

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ECOSISTEMA DIGITAL DE COLOMBIA: TENDENCIAS Y OBJETIVOS POR ALCANZAR

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Abstract: *The article describes some aspects of the digitalization process in Colombia. The authors show the results of implementation of two plans: "Colombia Bring It On" and "Vive Digital" and do forecasts about the future developments in a digital sphere in Colombia.*

Key words: *Colombia, digitalization, MinTIC, Vive Digital.*

Ultimamente Colombia ha mejorado sus resultados en el desarrollo de Internet y las innovaciones en los últimos 4 años [1], [2]. Sin embargo, en la calificación de desarrollo de gobierno electrónico, Colombia descendió 7 puestos desde el puesto 50 hasta el puesto 57 [3], lo que refleja un retraso en esta esfera respecto a otros países.

El plan "Colombia Bring It On" fue creado en 2014 gracias a la alianza entre MinTIC (El Ministerio de Tecnologías de la Información y las Comunicaciones) y ProColombia. El objetivo de este proyecto es mostrarle el contenido digital al mundo, por medio de: aplicaciones móviles, videojuegos, animación digital y otros [4].

Las aplicaciones móviles pueden convertir a Colombia en líder mundial en el desarrollo de aplicaciones sociales en sectores como agricultura y salud. En cuanto a los videojuegos, Colombia tiene gran potencial en el sector con ayuda del Gobierno Nacional. El mercado colombiano es el cuarto en el sector de videojuegos en Latinoamérica. Según el Ministerio de Comercio, Industria y

Turismo (MinCIT), la animación representa el 15% de contenido digital en Colombia.

Merecen atención dos sectores clave:

- el sector salud
- el sector turismo

El sector salud es el mayor en términos de digitalización en Colombia. Prueba de este hecho son servicios como telemedicina, salud móvil (mSalud) y la historia clínica en línea.

El sector turismo tiene un potencial de desarrollo en el uso de aplicaciones para dar a conocer diferentes destinos que un país puede ofrecer a los turistas de todo el mundo. El Gobierno Nacional financió 12 proyectos orientados al fortalecimiento del turismo en la esfera de digitalización.

El Plan Vive Digital para la gente es el plan de acción del Ministerio de Tecnologías de la Información y las Comunicaciones para crear puestos de trabajo, reducir la pobreza, y desarrollar economía en general. Por lo tanto, el Ministerio desarrolla su actividad en las esferas de empleo, educación, emprendimiento, y Gobierno Digital [5].

El Plan Vive Digital es orientado a alcanzar los siguientes objetivos:

1. El desarrollo de programas sociales destinados a los más pobres. Por esta razón, el proyecto se centra en sectores de educación y salud. Además, se planea triplicar los empleos en la industria de software.
2. El segundo objetivo es perfeccionar el funcionamiento del Gobierno y elevar el nivel de servicios. Asimismo, con el lanzamiento de una estrategia nacional de ciberseguridad se prevé proteger los datos personales de los ciudadanos.

Colombia es el país de América Latina, donde el sector de las tecnologías de la información y la comunicación se viene expandiendo gracias a la creación del 2 proyectos en 2014. Esta evolución se confirma por varios hechos. En 2015 1,2 millones de personas con discapacidad tuvieron oportunidad de usar las TIC. También 800 centros proporcionaron herramientas para promover el acceso. Casi todas las empresas grandes y las pymes usaron Internet en 2016. Entonces se observa una tendencia al alza en el uso de los servicios de TI. Han sido registrados 10,7 millones de conexiones a la banda ancha. Se planea generar 350.000 empleos a finales de 2018 para aumentar el número de ingenieros y tecnólogos en áreas TIC. El aumento del número de usuarios genera el desarrollo tecnológico y se planea lanzar 5G en el año 2020.

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ENERGÍAS RENOVABLES EN AMÉRICA LATINA: TENDENCIAS Y PERSPECTIVAS DEL SECTOR

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Abstract: *The article contains some aspects of the use of renewables in Latin America. The authors demonstrate the experience of Costa Rica, Bolivia, Brazil and Mexico in the sphere of green energy and describe programs.*

Key words: *Latin America, renewable energy, Inova Energía, PROINFA, hydroelectric power.*

Hace mucho que América Latina muestra interés por recursos de energía renovables. Estudiemos los casos de Costa Rica, Bolivia, Brasil y México. Están entre 30 países de mayor interés desde el punto de vista de las inversiones en la energía renovable.

Brasil es el mercado de energía renovable más grande de América Latina. Uno de los proyectos más famosos de Brasil en el campo de las energías renovables es el Programa Inova Energia. El objetivo del programa es apoyar las empresas en el campo de la energía renovable en forma de subvenciones y

créditos preferenciales. En la transparencia se ven los organismos que financian este proyecto.

En diciembre de 2010, el Ministerio de Minas e Energía de Brasil aprobó un nuevo Plan decenal de Expansión de Energía [2] para el periodo entre 2010 – 2019. El plan prevé un paquete de inversiones para ampliar la construcción de plantas de energía en los sectores de la energía hidroeléctrica y eólica. El plan también enfatiza el programa PROINFA para estimular una fuente alternativa de electricidad [4].

Actualmente cobra fuerza el sector de energía renovable en México. En diciembre de 2013 México liberalizó el sector de inversión privada y convirtió el sector energético en un mercado competitivo de comercio mayorista. A base de estos cambios legislativos, México creó un mercado mayorista de electricidad con un sistema de subastas de energía que utiliza certificados de energía limpia. El mercado mayorista de México comenzó las operaciones de prueba en septiembre de 2015. El nuevo sistema de mercado se puso en marcha en 2016, su funcionamiento completo está previsto para 2018. El sistema de subastas a medio y a largo plazo será el mecanismo principal para la compra de capacidad energética, con las fuentes de energía renovables incluidas [4].

Costa Rica casi ha dejado de usar los recursos tradicionales y los ha cambiado por fuentes de energía renovables. En 2015 el 99% de energía fue extraido de los recursos renovables, a lo largo de 285 días el país se mantuvo combustible fósil [1]. Está bien claro que el objetivo de usar la energía renovable es alcanzable. El tipo de energía más usado en Costa Rica es la energía hidroeléctrica.

Costa Rica puede financiar la energía alternativa. Uno de los proyectos recienteses es la puesta en marcha de la central hidroeléctrica más grande en América Central (Reventazón) a mediados del año 2016. En la transparencia se ven varias fuentes de financiación de este proyecto [5].

Bolivia *posee* ricas reservas de gas. Cada año el país extrae más de 20 mil millones de metros cúbicos. En 2016 las reservas probadas constituyeron 300 mil millones de metros cúbicos según los datos del Gobierno de Bolivia [3]. No es beneficioso para Bolivia perder esa posición. Hay preocupaciones debido a la inestabilidad del mercado y el hecho de que las reservas de gas pueden agotar algún día.

Además, en 2014 fue aprobado el plan de producción de electricidad para el *período entre* 2020 y 2025. En el plan se indica que los recursos renovables son una parte integrante de los recursos energéticos de Bolivia, por lo tanto,

Bolivia tiene la intención de obtener 183 megavatios de energía para el año 2025. El Programa del Gobierno se centra en energía geotérmica y ya se ha aprobado la construcción de una central geotérmica en Laguna Colorada.

En conclusión, América Latina viene desarrollando diferentes proyectos de energía renovable. La mayoría de los países latinoamericanos actualmente prefieren la energía alternativa y crean un clima inversionista adecuado para el desarrollo de fuentes de energía renovables.

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ESPECIAL BITCOIN ORIGEN Y FUNCIONALIDADES

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Abstract: *The article examines the problems and prospects of the development of the world's crypto currency in the world, the emergence and consolidation of bitcoin on the world stage, its current position in the world economy.*

Key words**:** *crypto-currency; bitcoin; crypto-currency farms.*

El protócolo de Bitcoin y la primera versión del software fueron creados en 2009 por un programador Satoshi Nakamoto. En su honor, se llama la parte más pequeña de la moneda 1 satosh que equivale a 0.00000001 bitcoins.

Bitcoins se puede transferir de una billetera electrónica a la billetera electrónica de otra persona, es posible comprar productos o pagar por servicios no solo en Internet, sino también en el mundo real. Por ejemplo, algunos cafés o tiendas le permiten pagar en bitcoins.

Hablando de las peculiaridades de este tipo de moneda criptográfica no se puede ignorar que, en primer lugar, todas las carteras y transacciones en este sistema son públicas. Cualquier persona que sea puede acudir a la página de su cartera, ver todos los detalles de las transferencias realizadas. Sin embargo, no es posible identificar al propietario de la billetera o el creador de la transacción ya que en los documentos no se indican los datos personales. Los monederos son completamente anónimos y no están vinculados a una persona o entidad [2]. En segundo lugar, en el sistema Bitcoin se limpia todo el *saldo de la* dirección asociada a una cartera. Hay que tener en cuenta que en la página web de la cartera de bitcoin no hay información sobre la cantidad de criptodivisa. Para calcular el saldo, es necesario que el titular de la cartera lo haga por si mismo. En tercer lugar, los pagos con *Bitcoins no se pueden* ser revertidas *ni* anuladas. El *sistema Bitcoin* no permite "deshacer" una transacción, siendo a la vez una gran ventaja y un gran inconveniente.

Otra diferencia entre la criptomoneda y las formas clásicas de dinero consiste en que las transferencias Bitcoin se llevan a cabo directamente sin intermediarios. Los grupos de transacciones se combinan en bloques. Las cadenas de bloques llamados "blokcheyn" permiten monitorear todas las transacciones hechas en bitcoins. En otras palabras, el bloque es una base de datos pública que se almacena en varias ordenadores simultáneamente y contiene toda la información sobre las transacciones relalizadas.

Bitcoins no sólo se puede transferir de una cartera a otra, sino también es posible "extraer" dinero *(ing.mining*). Los mineros reciben la remuneración (en bitcoins) por crear un nuevo bloque de transacciones. Para crear un nuevo bloque es necesario calcular un valor específico que cumpla con las condiciones del sistema. De hecho, se debe resolver un cierto problema matemático mediante el ordenador. Cada vez que se *crea un nuevo bloque*, se añade a la cadena, creando una lista cada vez mayor con todas las transacciones que se han hecho en toda la historia *de* la red *de Bitcoin* [1]. Llevándolo al terreno técnico, la *probabilidad* que tiene un *minero* de generar y sellar un *bloque* depende de la *potencia* computacional que tenga para realizar estas operaciones lo más rápido posible [3].

En resumen, observamos que la popularidad de criptomoneda está relacionada, en primer lugar, con el hecho de que en mundo moderno criptomoneda es un hecho innovador, la aparición de lo cual resultó posible gracias al desarrollo de tecnologías globales de transmisión de la información, y las redes descentralizadas recibieron una gran popularidad. En segundo lugar, el interés en criptomoneda está creciendo rápidamente, debido a la necesidad del "dinero justo", el derecho al anonimato y la protección contra la falsificación [4]. En tercer lugar, criptomonedas en comparación con las monedas nacionales tienen grandes ventajas. Aunque tienen sus inconvenientes. A nuestro parecer, sólo el desarrollo posterior podrá revelar el balance de ventajas y desventajas en comparación con el dinero tradicional. Al fin y al cabo, se debe notar una notable popularidad que ya tiene la criptomoneda en los mercados financieros mundiales.

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BOOSTING DIGITAL AND FINANCIAL LITERACY FOR THE DEVELOPMENT OF DIGITAL ECONOMY

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Abstract: *The article examines the importance of digitally savvy and financially literate human capital for the development of digital economy in Russia. It describes how state institutions and the private sector contribute to raising financial and digital literacy among children and adults.*

Key words: *digital economy, financial literacy, digital literacy, digitization.*

Digital economy began to develop in Russia after the message of Vladimir Putin to the Federal Assembly in 2016, when the President pointed to the need to form a new web economy to improve the efficiency of industries through information technology.

The government of the Russian Federation identified five basic directions of digital economy to be developed by 2024. They are normative regulation, the formation of research competencies and technical facilities, information infrastructure, information security and professional training [1]. "However, coordinated efforts by governments and private sector are required to enable inclusive growth that will not leave behind any vulnerable groups of citizens" [5]. Among the key fundamentals for the development of digital economy is digitally savvy and financially literate human capital. That is why actions are being taken for increasing both financial and digital literacy of the public.

In 2017, the percentage of people using such online services as doctor's appointment, electronic diary, passport registration and different kinds of payment, increased dramatically compared with the previous two years (Fig.1).

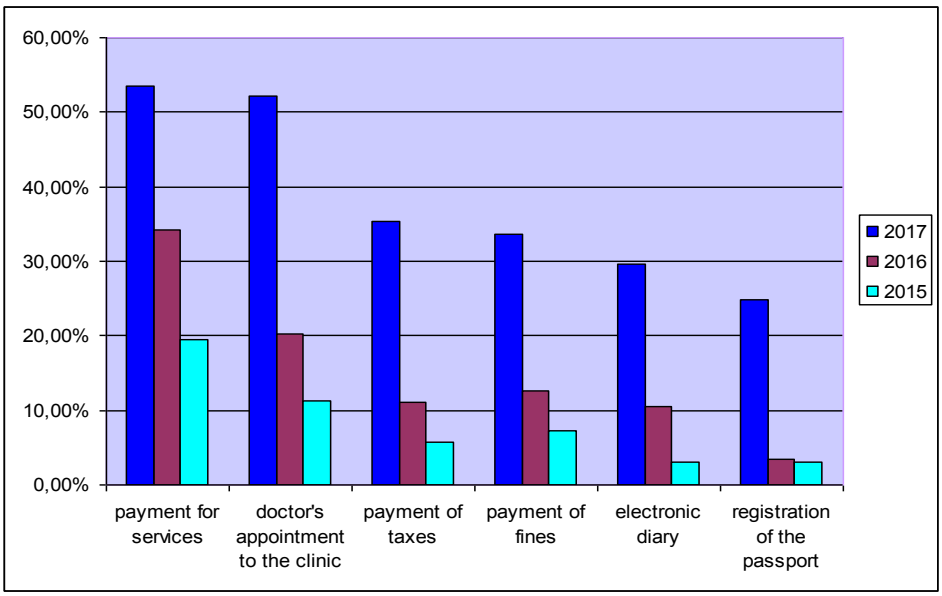

Fig.1. The percentage of people using online services in Russia [2, p.15].

Obviously, the large-scale development of online banking, the digitization of the social sector, accompanied by the growth of cybercrime and the need to protect sensitive information necessitate increasing the level of cyberhygiene and digital literacy of the population. According to the Regional Public Internet Technology Center, a public organization creating a platform for interaction

between Internet users, businesses and the state to solve acute issues related to the IT industry and providing educational information to improve Internet literacy in Russia, in 2017 the index of digital literacy in the country grew by 5.7% to the level of 5.99 out of 10 [2, p.10].

Another focus is on boosting financial literacy. In this regard, special attention is paid to bringing up financially literate children by both the government and financial institutions. For instance, Home Credit Bank launched a portal "Moneykids.ru" providing children and teenagers with both educational materials and digital tools for practice. The bank also annually arranges a business game "Useful Money" in schools throughout Russia within the framework of the All-Russian Week of Financial Literacy initiated by the Ministry of Finance of the Russian Federation.

In 2017, a federal program "Online lessons of financial literacy" in which specialists from Russia's leading financial institutions conduct educational webinars for schoolchildren was launched. The lessons are conducted as a part of a strategic agreement between the Central Bank of Russia and the Ministry of Education and Science of the Russian Federation. All schools with the Internet access and the necessary equipment can take part in online broadcasts. In 2018, the program covered all regions of Russia. Experts attracted by the Central Bank talk about personal financial planning, investment and insurance, cooperation with tax authorities, the pension system, the specifics of bank loans and deposits. Special attention is paid to the rules of security in the financial market and protection of the rights of consumers of financial services [6].

Financial institutions also contribute to raising the level of financial literacy among adults by providing employees with training, consulting customers in offices, posting information articles on their websites, distributing printed information materials, creating public educational portals. The educational portal "Finclass" developed and owned by Home Credit Bank offers its visitors necessary and interesting information in the field of financial literacy. It provides adults with free online courses covering such aspects of managing personal finances as budget planning, saving and investing, types of loans, financial security and consumer protection in financial services.

In 2018, AK BARS Bank joined the federal project. Business trainers conduct webinars on the basics of personal insurance and financial planning. According to the credit organization, its participation in programs for the development of financial literacy is one of the most important directions in the

work of the bank, as it forms the financial culture of the clients and helps them to avoid financial risks [3].

In the same year, Sberbank launched a new large-scale financial and educational program for elderly people. At present, the program is implemented in two regions: Altai Region and the Republic of Chuvashia, but in the future, it will be implemented throughout Russia [3].

In conclusion, it should be highlighted that today the share of digital economy in the country's GDP is 3.9%; however, its rapid growth is expected and, according to the head of Sberbank, the figure might reach 50% by 2025 [4]. It is, therefore, a necessary imperative to empower every citizen with the information and knowledge necessary to join the revolution and help Russia progress in the age of digital economy.

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CORRUPTION ET ADMINISTRATION ELECTRONIQUE : ETUDE DES LIENS

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***Résumé**: L'électronisation du gouvernement aide à freiner et à réduire la corruption á l'échelle gouvernementale. Nous étudions la relation empirique entre la quantité de services gouvernementaux fournis en ligne et le niveau général de la corruption et nous discutons les résultats.*

***Mots-clés**: administration électronique, corruption, relation empirique.*

Les nouvelles technologies font partie inaliénable du quotidien actuel et maintenant on ne peut intéresser personne par les technologies qui paraissaient être un miracle il y a seulement quelques décennies. Cette situation offre de nouvelles possibilités visant les communications avec les institutions sociales et gouvernementales. En plus, la circulation de documents entre différents départements se réalisé en ligne. La documentation électronique réduit la bureaucratie [1]. Nous constatons que cette tendance est favorable à tous les niveaux sociaux du citoyen ordinaire au top-manageur des entreprises leaders. Nous dirons même que les personnes morales en profitent plus que les personnes physiques. La vie fiscale devient plus logique, simple et structurée. En général, dans le contexte de l'administration électronique, les services deviennent plus rapides, efficaces, accessibles et mieux gérés [2].

Mais ce n'est qu'une seule facette de la réalité - l'administration électronique impose plusieurs réglementations qui tendent un piège á la fraude et corruption [3].

Afin d'étudier la relation empirique entre la quantité de services gouvernementaux fournis en ligne et le niveau général de la corruption nous devons choisir quelques indicateurs de base. L'Indice de perception de la corruption peut servir d'une bonne mesure de la corruption. Cet indice est produit par Transparency International, une ONG qui publie ces données chaque année [4]. En ce qui concerne la part des services gouvernementaux fournis en ligne, nous pouvons utiliser l'Index de développement du gouvernement électronique, publié par le Département des affaires sociales et économiques de l'ONU [5].

Une régression linéaire simple ne reflètera pas la relation de cause à effet, c'est pourquoi il est préférable d'utiliser un test statistique plus sophistiqué. Le test de causalité de Granger est très efficace pour cette situation particulière, car il teste la différence de prévisibilité d'un paramètre économétrique.

Mathématiquement parlant, le test de causalité de Granger consiste à tester simultanément deux hypothèses statistiques en utilisant un test F pour les valeurs critiques. Il peut être formalisé de la manière suivante :

$$Y(t) = a_0 + a_1 y_{t-1} + \cdots + a_p y_{t-p} + b_1 x_{t-1} + \cdots + b_p x_{t-p} + \varepsilon_t$$

$$X(t) = c_0 + c_1 x_{t-1} + \cdots + c_p x_{t-p} + d_1 y_{t-1} + \cdots + d_p y_{t-p} + u_t$$

-Où p est un décalage, que nous supposons être 1 pour la simplicité.

Par conséquent, les deux hypothèses nulles sont :

$$H_0^1\colon\ b_1 = \cdots = b_p = 0$$

$$H_0^2\colon\ d_1 = \cdots = d_p = 0$$

L'hypothèse proposée est que le développement du e-gouvernement affecte (au sens de Granger) le niveau de corruption. Afin de tester cela, nous avons choisi arbitrairement 5 pays différents en régimes économique et social – les États-Unis, la France, l'Allemagne, l'Estonie et la Pologne.

Le test a prouvé qu'en fait, dans tous les pays étudiés sauf les États-Unis, la mise en œuvre des politiques d'administration en ligne a eu un impact statistiquement significatif et positif sur le niveau de corruption. Cela indique que, toutes choses étant égales, l'augmentation du nombre de services gouvernementaux fournis par le biais de systèmes en ligne pourrait réduire la corruption ayant lieu au sein de ces structures gouvernementales.

Il est important de noter que ce test statistique est mieux utilisé pour les relations linéaires, alors que la relation entre ces deux facteurs est clairement plus complexe et nécessite plus de données. Néanmoins, il suffit de prouver qu'il existe, en fait, une relation de cause à effet statistique qui nécessiterait une analyse économétrique plus sophistiquée et plus approfondie.

La douane électronique offre de nouvelles possibilités au développement du commerce international aux niveaux complètement différents. Le développement dans cette direction entraîne la croissance de commerce et par la suite l'augmentation des frais de douane.

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BANKING SERVICES FOR DISABLED CUSTOMERS: A REVIEW OF THE LITERATURE

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Abstract: *With the widespread use of and increasing reliance on new technologies and online banking services such notion as the customer experience has formed the basis for the further banking industry development. That crucial direction of making banking services more simple and convenient for everyone has also created a new trend – banking usability & accessibility for the disabled customers, who previously have had lack of opportunities and were therefore underserved because of some constraints, which nowadays can be easily solved by various assistive technologies and digital features. This article reviews and compiles various approaches to make banking services equal for the disabled customers.*

Key words: *banking, online banking, usability, accessibility, financial inclusion, disability, disabled.*

According to statistics, 15,3% of the world's population have some mental, physical, or sensory limitation that can impact their ability to use technology [4]. Countries all over the world have different approaches to raise financial inclusion but nowadays, since the Convention on the Rights of Persons with Disabilities has been adopted, all of them included one crucial objective into their sustainable development strategies – usability and accessibility for

everyone, especially for people with various disabilities. Limited financial inclusion of people with disabilities was caused by lack of accessible financial services. It resulted in an unstable relationship between disabled customers and financial institutions. The tendency to develop financial services through customer experience finally forced banks to draw attention on approximately one billion potential customers with some kind of disability.

According to surveys, 33 percent of disabled people prefer to do banking paying bills online [5, p. 24]. It is proved,that internet access has similar meaning and benefits for disabled and nondisabled people in case of doing online banking. The ability to do online banking was mentioned as the primary goal of having internet access by 27 percent non-disabled and 21 percent of disabled people, which is less, but still quite comparable. No matter, what type of disability person has, approximately 1/3 of people with disabilities in each group prefer to do perform their daily banking operations online.

Table 1: Banking activities carried out online by disability group [5, p. 29]

	% Mobility Impaired	**% Hearing Impaired**	**% Blind / Visually Impaired**	**% Multiple Disability**	**% Other Disability**
Banking / paying bills	29	34	32	29	36

That's why stable internet connection became one of the main point which governments try to develop: for example, the Conservative Government of the United Kingdom as part of its United Kingdom Digital Strategy planned and formerly provided superfast broadband to 95 percent of the UK by December 2017 [1, p.52]. That surely can help disabled people to perform their daily banking via online channels even if the tendency of bank branch closures will further continue.

In tend to reach the goal of universal design governments within that strategies highly recommend to different service providers, including banks and other financial organizations, to use the most complete accessibility guidelines developed by the World Wide Web Consortium (W3C): the Web Content Accessibility Guidelines, or WCAG. The current version, WCAG 2.0, defines standards that help to create fully accessible websites and mobile applications with perceivable, operable, understandable and robust content for people with different disabilities [6].

This is the main reason why banks all over the world try to invent different solutions for their disabled customers. The whole world came to the point when the development of information and communication systems & technologies finally made financial institutions able to give proper services to this group of customers and for banks such fact has swiftly transformed into the new competition sphere. Nowadays almost any transaction can be performed online: customer identification, verification and authorization, balance enquiry, statement viewing, transfer between accounts, bill pay, third party funds transfer, reviewing and updating investments and portfolios, online loan applications and interactive financial calculations etc. So, when a bank commits to inclusivity, and demonstrates the value it places on people with disabilities as customers and employees, it creates brand loyalty with this segment. There is no doubt that bank's public image as a leader and strong corporate citizen resonates not only with the disability market, but also with their friends and family [3].

That is why banks are working towards three main channels to attract new customers and become disability-friendly: special products and services for persons with disabilities, inclusive marketing approaches and digital accessibility. When banks try to adjust their current services to that sensitive group of customers, they, again, have only three available ways: to make all the existing communication channels accessible even for self-servicing, to provide customers with all necessary assistive technologies and give disabled customers all essential in-branch help from the qualified professionals:

1. Accessible features within bank branches, including talking ATMs that provide voice-outputs instructions, signs and pointers in Braille, face-to-face human assistance in reading and filling up forms, including sign language interpreters.
2. Large-print and Braille documentation, audiodocuments, large size fonts, accessible e-text or DAISY formats.
3. Post office banking in areas, where certain banks closed all of their branches.
4. Mobile branch banking service, which consists of branch vans travelling across the country and provide banking services (cash transactions, bill payments, cheque deposits) to customers with disabilities who may not be able to access a branch [1, p. 54].
5. Telephone banking with text transmitter equipment, telephone transfer service, Interactive Voice Response (IVR) technology or touch-tone features of the user's phone – for consumers, who have various disabilities;

6. Video banking services and video relay services to facilitate banking for consumers using sign language;

7. Mobile banking services, such as SMS and mobile banking applications;

8. Internet banking services, including websites and desktop applications.

9. Different assistive features such as special high-contrast colour schemes and tactile dots for credit and debit cards, which helps to indicate which way to insert a card into the ATM and to differentiate it easily from other cards in the wallet, beacons connected with a mobile application, which help to identify client when he have just arrived into the office, facsimile signature stamps, cheque and credit book templates, bank note gauges [2] an so on.

There is no need to recount further, because more and more new solutions appear everyday for making all contents of the banking sphere accessible. The reason is simple: when customers with disabilities are made aware of the products and services mentioned below it becomes easier for them to do business with financial institutions, and trust that their needs will be met, which, in respect brings banks great reputation, additional clients and financial profit.

Coming to the conclusion, it is important to mention that the provision of accessible banking services became a necessity, without which a bank is automatically sent to the list of banking industry laggards. Banking institutions nowadays should work towards enhancing overall customer experience in order to build deeper relationships with persons with disabilities to inspire trust and confidence in their brands, because in banking industry today “inclusive and accessible” became the new “competitive & successful”. Creating sustainable, long-term relationships with huge and previously untapped market consisting of more than one billion people all over the world is an opportunity that banks can no longer afford to ignore, so it makes the question of building inclusive financial infrastructure for people with disabilities one of the most important in the financial inclusion agenda.

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ÉCONOMIE NUMÉRIQUE DANS LE DOMAINE DU TOURISME

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L'économie numérique est devenue la réalité d'aujourd'hui, la principale composante de l'économie mondiale. Et elle forme et s'infiltre dans toutes les sphères de l'activité humaine à un rythme phénoménal. Elle n'a pas contourné le marché touristique. Malheureusement, cependant, l'industrie du tourisme n'est pas prête à accepter chaque fois de nouvelles technologies et les changements fondamentaux qui se placent dans le marché du tourisme.

Mots-clés*: l'économie numérique, le marché du tourisme, Internet.*

Le développement de l'économie numérique crée des tendances clés de devenir le marché touristique dans le monde entier, y compris dans la Fédération de la Russie. Selon les spécialistes, les plus importants parmi eux sont:

- La mondialisation du tourisme d'affaires ;
- Le développement actif de ses ressources transnationales ;
- L'émergence de nouveaux canaux de distribution ;
- La sortie massive des entreprises hors connexion dans Internet ;

- La modification des modes de consommation : personnification de l'approche dans l'Organisation des voyages ; l'utilisation d'applications mobiles.

En 2017, la proportion des résidants qui utilise l'accès à Internet haut débit pour des fins touristiques s'établissait à 18,77 %.

Le marché des services touristiques par Internet semble être le plus actif en développement de services de commerce électronique de secteur, il montre une croissance annuelle considérable. Au cours des dernières années, plus de 50 pour cent de la population de la Fédération de la Russie dans la planification et l'organisation propre voyage à travers la Russie ont utilisé Internet. Et les voyageurs étrangers , lors d'un voyage à travers la Russie, la troisième partie tout l'argent gaspillé a passé à l'aide d'Internet [2].

Les procédés technologiques modernes fournissent une occasion pour les voyageurs personnellement, planifier et organiser votre propre voyage du début à la fin : acheter des billets bon marché pour tous les types de transport, l'hébergement de réserve, créer des itinéraires et plan de loisirs . Des innovations les plus connues dans le tourisme associé aux technologies numériques, étaient innovations dans le domaine des transports et des services (système électronique de réserve, billets électroniques, visas électroniques) [3].

Le moteur de recherche d'avion, par exemple, jette toutes les offres actuelles de zones de transporteurs établis, marque les plus abordables et les plus rapides , des correspondances, informe de faire baisser les prix. Les applications populaires fournissent des informations sur les hôtels, auberges, campings, appartements et villas n'importe où dans le monde.

Avant le voyage autorisé, télécharger des cartes hors connexion, vous permettent de traiter en toute transparence le nouvel emplacement, les applications de transport local, existant dans de nombreuses grandes villes. Pour plus de commodité, vous pouvez obtenir un planificateur de voyage. Ces applications agrègent les données sur les tickets, les hôtels et d'autres données pertinentes pour les touristes et pour ne rien oublier et exécuter tous les prévues [1].

Parmi de nouvelles formes de tourisme d'aujourd'hui se distingue le tourisme virtuel (individuel, ce qui permet par l'utilisation de la forme de réseaux informatiques et de communications informatiques modernes l'achat réaliste au maximum sensuelle d'information sur les destinations souhaitées de nombre réellement disponible sans se déplacer en réalité) [3].

On peut supposer que la technologie, qui est formé aujourd'hui, dans 5-10 ans sérieusement change le marché du tourisme. Le marché sera en mesure de quitter tous les médiateurs, et la raison pour laquelle sera que la plus haute qualité et facilement accessible sera la responsabilité des fournisseurs de services touristiques. Cette tendance ne peut déranger les représentants principalement des agences de voyages. Ainsi, une des directions que nous assistons aujourd'hui est une expression claire du conflit d'intérêts entre les fournisseurs de services de tourisme et les voyagistes dans le combat pour le client. À ce jour, les fournisseurs du tourisme services s'appliquent, vers les tours opérateurs et agences de voyages, des mesures impopulaires comme : annuler des commissions d'Agence par les compagnies aériennes à réduire les coûts de distribution etc. [2].

Dans ces circonstances, les voyagistes et les agences de voyages pour conserver des affaires et la survie sur le marché du tourisme, devraient générer de nouveaux services et produits, pour lesquels le voyageur désireux de payer, et qu'il ne peut fournir un seul fournisseur.

L'expérience de leaders du marché en ligne indique un effet positif qui permet de créer vos propres centres d'appels, appelé l'accord qui vient uniquement par le biais de l'introduction de nouvelles technologies ne sera pas capable de survivre. La nécessité pour la qualité des ressources humaines est sauvée, mais à un niveau professionnel supérieur.

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INVESTMENT ATTRACTIVENESS OF THE ENTERPRISE

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Abstract: *This review defines the term investment attractiveness of the enterprise and discusses the methods for assessing company's investment attractiveness. Special attention is given to evaluation methods of investment potential in the current economic environment.*

Key words: *investment attractiveness, enterprise, investment potential, investor-creditors, direct investors, assessment.*

The main goal of commercial activity is to get the most profit. The economic entity needs additional resources (investments) to ensure development of production efficiency in order to achieve higher economic benefits. However, investors need a thorough calculation of profitability and risks, trying to minimize chances of losses, and therefore assesses the effectiveness of investments in the project. They consider the concept of investment attractiveness of the enterprise. It is a set of characteristics and indicators of the company's investment climate which shows the feasibility of investing in it, including increasing the investment potential of the firm and methods of it increasing.

As for the investment attractiveness of the region, it should be mentioned that a clear definition of this concept has not been adopted so far. However, according to A. Pakhalov, the investment attractiveness of the region as a whole is viewed as a system of indicators of the region that affect the flow of investment [4]. Factors determining investment attractiveness refer not only to financial or economic aspects, but also to social, political, legal and other spheres.

It should be noted that this definition can be attributed not only to the region as a whole, but also to a particular industry or a specific enterprise. As the region's investment attractiveness is formed by the basic conditions, the investment climate and investment attractiveness of the enterprises (see Figure 1).

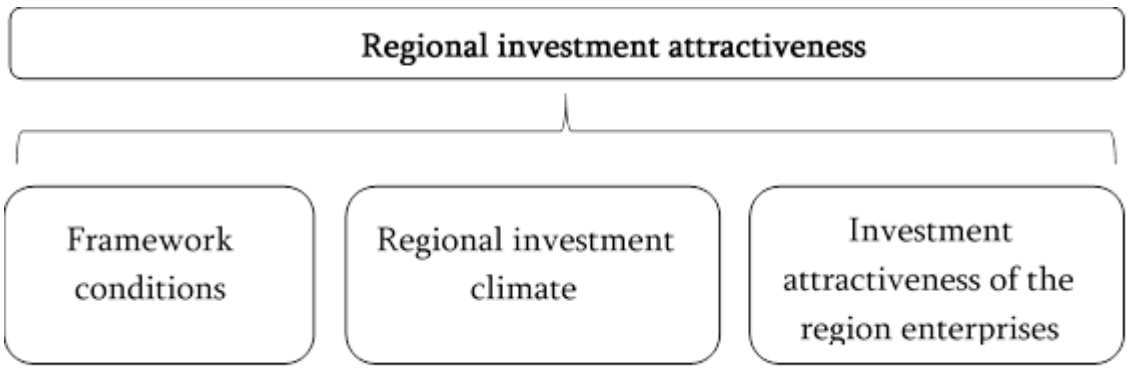

Figure 1. Regional investment attractiveness

Investment attractiveness of the company is defined in a slightly different way. It should be noted that there are many definitions of the term. The investment attractiveness is an assessment which is based on the diagnosis of strengths and weaknesses of the company, analysis of key factors and performance ratings and risk identification, which is necessary to maximize the effectiveness of investment decisions [3].

Taking into consideration mentioned above, it can be concluded that investment attractiveness is not just a set of economic and financial indicators. It is a whole set of factors that inform investors about the state of the enterprise, its investment climate, its strengths and weaknesses, which helps to determine the expediency and efficiency of investing in the given object and possible losses from realization of investment activity.

Further, when speaking about methods for assessing the investment attractiveness of an enterprise and, accordingly, the approaches to raising it, five main approaches can be named [5]. The first approach is the fundamental identification of the enterprise, which defines it as an object of investment. To carry out such identification it is possible to use analysis of such indicators as, for example, profitability of production, income and profit dynamics, enterprise liquidity, asset turnover and others. The second approach is based on the consideration of a number of factors. The third and fourth approaches are related with the analysis of a wide range of factors, for which investment potential and enterprise investment risk are among the main ones. The last approach is characterized by the use of factor analysis in combination with expert judgment.

The simplest method is the method of peer review, in which special institutions assess the investment potential of the enterprise, making rating based on the assessment of the company's credit abilities or the effectiveness of its corporate governance. Various indicators are used while assigning the credit rating, such as the level of debt, financial condition (production activities and the state of the industry), market position, etc. As for indicators, they define the quality of corporate governance, such as transparency of company’s information to all stakeholders, compliance of the shareholders’ rights and interests by law to ensure an effective system of internal control and interaction with shareholders and potential investors. That is connected first of all with the fact that potential investors of the enterprise can be divided into two groups: investor-creditors, assessing the ability of the enterprise to fulfill contractual obligations under the loan; direct investors, who invest their money to increase the value of shares and business in general, and, accordingly, the growth of dividends of shares [2].

The following method is based on an indicative model for assessing the investment attractiveness of an enterprise, for example, "The Seven factors model". It contains the following indicators: sales profit, sales revenue, current assets, accounts receivable, short-term liabilities, accounts payable, debt capital, assets. These indicators are quite universal and diverse, they characterize the degree of assets usage and the degree of financial stability of the company [4].

Analytical method is based on the analysis of financial indicators, such as liquidity ratios, indicators of financial stability, indicators of business activity, profitability and others.

There are some other approaches for assessing the company's investment potential. They should be considered for comparison and better understanding of the issue [1].

In conclusion, it should be mentioned that the investment attractiveness of the enterprise is an important criterion for the successful implementation of its activities. Evaluation and analysis of this indicator will improve the company's strategy, rise to a higher level of development. There are various methods for implementing this process, but it is their combination makes it possible to provide a long-term perspective development of the company.

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DIGITAL UNIVERSITY: APPLICATION OF DIGITAL TECHNOLOGIES IN MODERN EDUCATIONAL INSTITUTIONS

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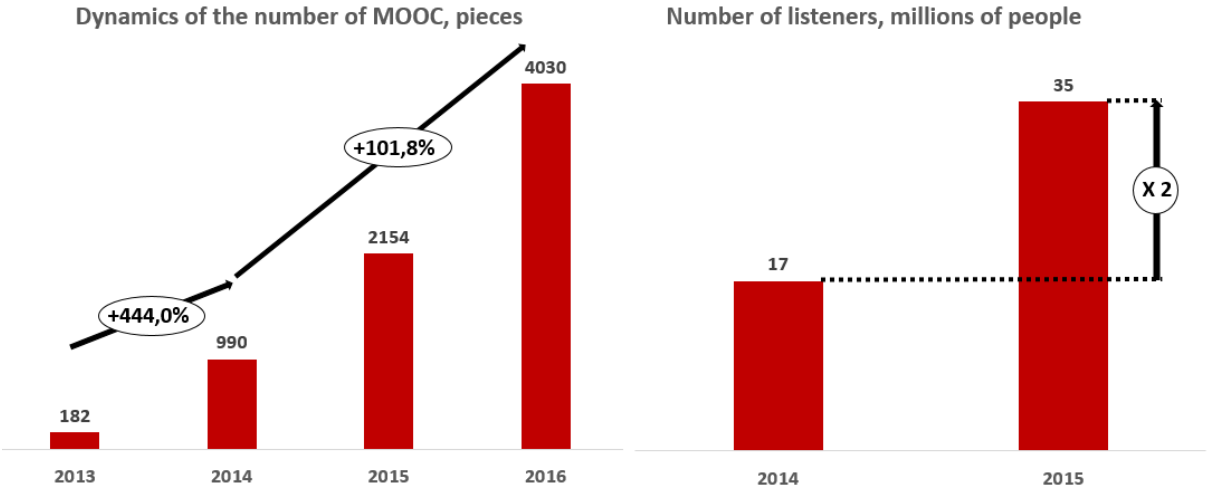
Abstract: *The article describes influence of digitalization and new technologies on all spheres of modern human life, the importance of digitalization for modern universities, the most susceptible to digitalization areas of university life and the strategy of transition to digital University.*

Key words: *digitalization, transition to digital University, blended learning.*

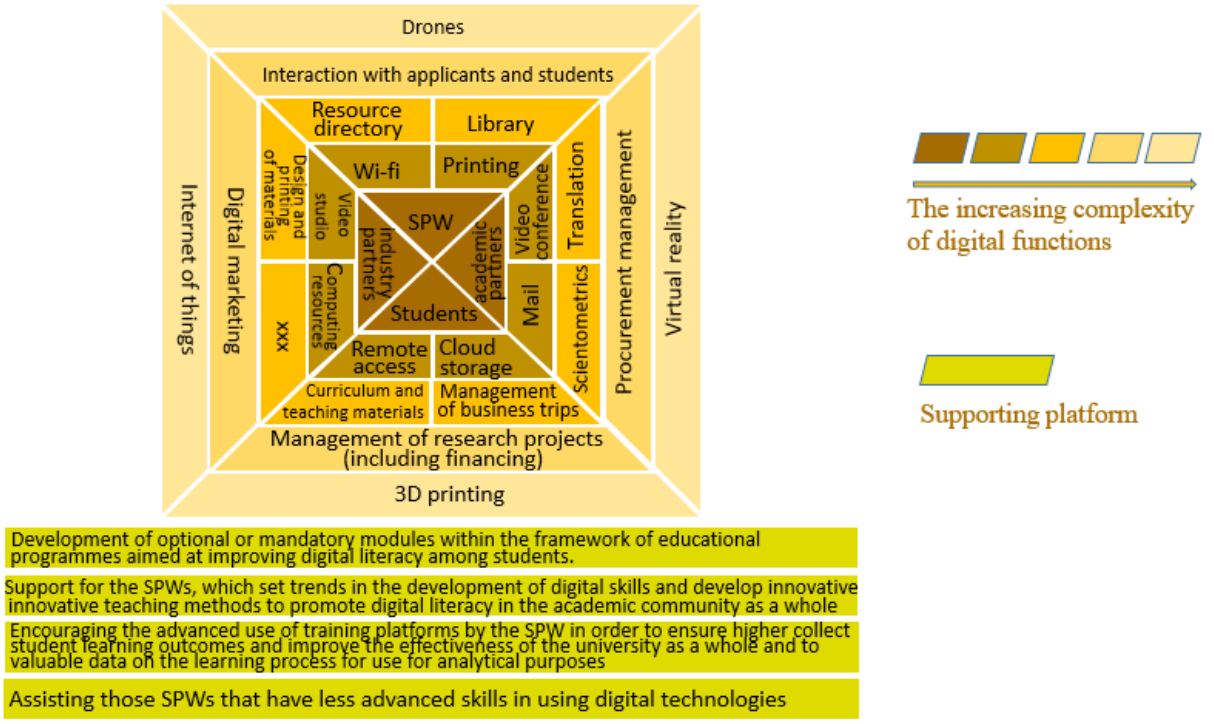
The branches of education are significantly changing because of the introduction of digital technologies in educational and research activities. Innovative technologies provide opportunities for the exchange of accumulated experience and knowledge, which allows people to learn more and make more decisions that are informed. Online learning is expressed in the form of blended learning and the development of massive on-line open course (MOOC).



Along with the annual doubling of the number of courses and the number of listeners, MOOC's projected consolidated revenues will increase by more than five times by 2020. Many universities in Russia, America and Europe are equipped with digital libraries and campuses. Everyone can get access to the information that was previously available only to experts and scientists.

Examples of basic information services are video screens for delivering lectures and seminars, wireless communication throughout the university (including hostels), cloud storage for data storage and exchange. It is highly probable that it will be widely used in the university environment from 2018-2019 [2]. Modern universities are supposed to receive drones (unmanned aerial

vehicles) for educational purposes. According to estimates from a recent study, the global market for the potential application of solutions based on drones in 2015 was $ 127 billion.



The strategy of transition to a digital university is to develop an integrated training program for the introduction of new technologies. These are labor contracts and continuous development programs for the provision of digital literacy skills [3].

Digital technologies significantly reduce the time available for communication, and contribute to the acceleration of all processes of economic activity. As a result, either an upswing or a decline in the economy may occur depending on the direction of human capital development. Nowadays there is a very high degree of influence of new digital technologies on the activities of universities [1]. The transition to the path of innovative development is not possible without the development and implementation of a conscious digitalization strategy that takes into account the specifics and specificity of the university's activities. The questions that are now facing universities are reduced to choosing a strategy for further development and choosing the direction on which it is planned to focus.

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INFORMATION TECHNOLOGIES OF MONITORING AND CONTROL OF SOCIAL AND ECONOMIC DEVELOPMENT OF REGIONS

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Abstract: *The article focuses on the importance and relevance of automation of monitoring and control systems. The author formulates a hypothesis about the possibility of solving the problem by reducing the indicators of socio-economic development. The article goes on to describe machine learning and data mining techniques to resolve the issue. The author concludes that the results of the described methods are suitable for interpretation by decision-maker in the context of the controlled subject area.*

Key words: *Automation, public administration, data mining, machine learning, monitoring and control systems, singular value decomposition, principal component method.*

Public administration is focused on the progressive development of modern society which determines significantly the role and importance of information in the management of socio-economic processes in the country. Since the Russian Federation is a multi-subject state, a timely analysis of the socio-economic indicators of regional development makes it possible to prevent many potential problems, for example, in the fields of demographic situation, quality of life, population employment and others. Monitoring of socio-economic indicators plays an important role in this case, as it is the information basis of the functioning and development of regional socio-economic systems. Therefore, the need to automate monitoring and control systems arises.

Thus, the object of the study is automation process of monitoring and control indicators of socio-economic development. While the subject of the research is the methods and algorithms for reducing the characteristic space of socio-economic indicators. The article describes the method of singular decomposition that was studied to achieve the objective of the research.

The problem of monitoring and control of socio-economic systems is rather complicated, because these systems are characterized by a wide range of indicators and their heterogeneity [1; 2; 3]. First of all, it is crucial to assess the state of the objects managed by the public authorities to measure the effectiveness of the latter. The assessment process includes analysis of an extremely large number of primary indicators, which is not possible to achieve without the use of various methods of data mining [1]. Such methods significantly simplify the work of the decision-maker by the efficient allocation of a new space of parameters, which, comparing to the original ones, are much smaller.

A wide range of different computational technologies, including machine learning technologies, can be applied to solve the problem of reducing the dimension of the initial observed data. One of the methods – singular value decomposition (SVD) [4]. This approach does not restrict the type of the original data matrix. Moreover, it can be built to improve the efficiency of other computational methods (for example, the principal component method (PCA) and the method of non-negative matrix factorization (NNMF)). Thus (taking into consideration the description above), singular value decomposition is a very versatile method.

A singular decomposition represents a real matrix of the initial data (X) as a multiplication of three matrices $X = U\Sigma V^T$, where U and V are unitary matrices, which consist of left and right singular vectors respectively, and Σ is a matrix which contains singular numbers on the main diagonal. Considering problem of reducing the characteristic space, the diagonal elements of the matrix Σ are very important, because they are interpreted as the variance introduced to each component after squaring.

The truncated singular decomposition method (Truncated SVD) is also widely applied to reduce the dimension of the characteristic space [5]. This method approximates the original matrix to a lower rank matrix, thus, making the information reduction.

As a result, the above described method is the basis of the development of a software module used to reduce the arrays of primary monitoring and control information. The final deliverable of information processing is that the initial space of indicators is reduced to several main components. The final results are interpreted by the decision-maker in the context of the controlled subject area (depending on the semantic content of the initial indicators).

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FEATURES OF SOFTWARE IMPLEMENTATION OF FILE ENCRYPTION USING ALGORITHM “KUZNECHIK”

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Astract: *This article examines the relevance of application of means of cryptographic protection of information in the financial and banking system. The author surveys the encryption algorithm "Kuznyechik" (grasshopper) and offers software implementation of a file encryption based on the above-mentioned algorithm. The emphasis is put on detailed description of the program as well as on its basic elements.*

Key words: *information security; cryptography; file encryption; data confidentiality.*

In modern economic realities all valuable information must be protected against unauthorized access and corruption [1]. One of the existing measures for information protection is application of different cryptographic techniques [2]. In the article we would like to analyze a method for information encryption with the use of algorithm “Kuznyechik” (GOST R 34.12-2015) which is widely discussed in different articles [3]. As the algorithm guarantees data integrity and maintenance, many IT-specialists are working on the creation and implementation of similar programs [4].

The aim of our research has been to create and test file encryption

software based on encryption algorithm “Kuznyechik”. The final program module can be used in banking and financial sphere within software and hardware system for ensuring and providing confidentiality and security of data interchange. During the process of the software development it has been necessary to:

1. Implement that any data download is subsequently processed by the chosen algorithm;
2. Select data encryption methods according to the algorithm;
3. Foresee actions of possible intruders upon the breaches of confidentiality and data integrity.

The application of the encryption program allows providing information integrity and confidentiality. In financial and banking sphere it can be applied for protection of data in financial statements, clients personal data, information of financial processions, etc.

File encryption is executed on programming language Python. Program implementation includes the following modules:

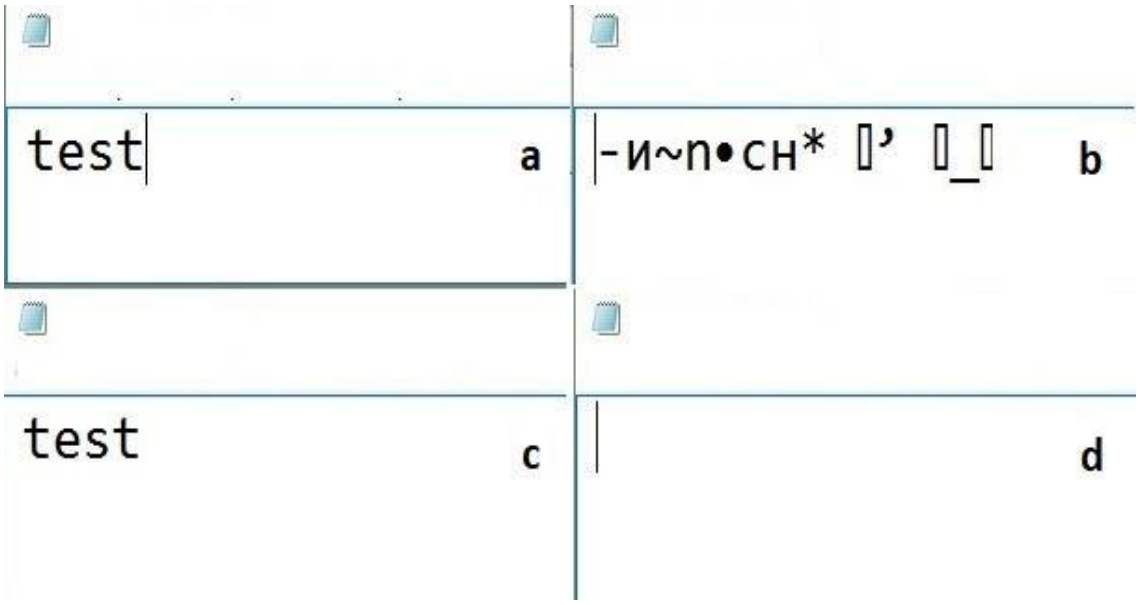
1. Design of graphical user interface;
2. Selection of software mode for files downloading;
3. Development of encryption/decryption blocks with the use of algorithm “Kuznyechik”;
4. Generation of the file saving system.

The result of the first stage of our project is shown in picture 1. Sign «Status:» indicates the status of the working program. The field «File:» indicates the name of the document which is chosen by a user. When the user clicks on “File” icon, he/she uses encryption or decryption program mode.

For convenience, we have presented the results of the performance of the program in the form of a text file. The user can not only see the results of encryption or decryption process, but control possible outcomes in case of incorrect password input within the limit of three consecutive input attempts.

Picture 2 demonstrates the following: a – initial state of file; b – encrypted file (password - test); c – decrypted file (password - test); d - file after three consecutive attempts of incorrect password input by a user (brute force attack defended).

Pic 1. Program GUI: a – main window; b – button File in menu; c – password input process.



Pic 2. Results of testing the program.

During our tests the module “algorithm «Kuznyechik» implementation” has been examined separately from the use of text parameters that describe the standard of the current algorithm. In order to verify the program performance,

there is an opportunity to download a collected product (it has been done for operating system Debian) and gain access to source code that can be studied and tested individually.

In conclusion we would like to outline that algorithm “Kuznyechik” is one of the variants of security software for implementation of cryptographic protection to ensure data confidentiality and integrity. The tests have shown that the software can efficiently be used in banking and financial organizations as a cryptographic security software tool for vulnerable information.

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DIGITIZATION OF CULTURAL HERITAGE THROUGH INFORMATION TECHNOLOGIES

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Abstract*: The article covers such points as, first, the introduction that is the importance of digitization of the cultural heritage, second, its archival data storage, third, our suggestions for providing cultural information with the help of the applications for smartphones.*

Key words: *digitization, cultural heritage preservation, information security, archival data storage, blockchain.*

Starting with cultural heritage preservation aspect itself, it should be mentioned that today we have an enormous amount of cultural objects of

previous ages. Lots of them are extremely fragile and put on risk of extinction. It is obvious that we need to save them and one of the ways to do it is digitization. No doubt that in today's world there are lots of available technologies that can provide extremely detailed digital copies of almost any object from buildings and landscapes to paintings, small jewelry and even sounds. However, detail enhancement leads to the lack of memory application programs required to storage cultural issues. While this problem could seem solvable due to relatively low costs of archival carriers there are other problems such as: information security, incompatibility of carriers, and relatively short life duration of carriers regarding purposes of archival preserving.

It would be to the point to note that archival carriers are constantly modified and improved from year to year. Due to this fact, in few years it will be difficult to elicit information from 'old-fashioned' carriers. The physical safety of data on the most modern storage mediums can be ensured approximately for 5 or 10 years. Today there are only a few commercial services that provide decent information security and life duration appropriate for archival data storage. The research shows that today there are some options that allow to safe keep data up to 1000 years which can be determined as satisfying. However, more than 80% of companies in 2017 faced information security faults [1] with more than half of attacks and threats which came from within the businesses**.** Due to these facts inner security becomes the main priority.

At present, the popular and expanding technology of blockchain seems to be an appropriate thing to establish and to be relied on. Based on distributed ledger technology and incorporated cryptography algorithms [5, p. 4] it provides sufficient level of security both from internal and external attacks and also guarantees the highest sustainability of the system. In terms of physical sustainability the system must provide easy logistics and maintenance together with reliable safety from any extenal physical impact. Current world experience in that field shows that such buildings and archives are possible to be made today. Famous Svalbard's Global Seed Vault in Norway could be a good example of it. Built on an island 130 meters above the sea level and 120 meters deep in the mountain, it officially guarantees safety from such dangers as direct atomic bomb strike, asteroid impact and climate changes [4]. There are others data storages located in isolated places. For example, the company named PIQL developed a new technology of digitizing and writing data on a film, which grants up to 500 years of data safety [2], opens its own archival data center. Based on examples above it becomes clear that such technologies are available

today. Thus, building up distributed network of archival data centers should solve most of current problems with hardware and information security.

Proceeding with cultural heritage providing aspect it seems important to note that now in XXI century we are lucky to be able to provide information to almost everyone who is interested in it, first of all, through the Internet which is affordable and widely spread. Today even disabled people can perceive content through the interfaces that can be interpreted by them. There are many other services such as Augmented and Virtual Reality, Digital Museums and, of course, apps in our smartphones. Close to 70% of people in key countries have smartphones and more than 70% of internet consumption is accounted to mobile devices [3]. Closer approach to the markets of applications, related to cultural attractions of Moscow, shows that there are few options if you want to deeply discover the city and hardly one of them provides environment-oriented interactive involvement which could interest people who are not deeply interested in history or culture.

In conclusion, summing up the results of our investigation in this sphere, we can state that one of the key solution to the problem of providing cultural information could be found in applications for smartphones. The application functionality could be presented with the quest system which, for example, asks to take photos of city sights providing bonus points for accomplishment; the site with cultural institutions, where museums, exhibitions, theaters can be registered to inform about their activities; the scan mode, which allows getting the whole information about the city sight, for example, a historical building simply by taking its photo in the application; the system of earned points exchange on tickets to museums, theaters, clothes with symbols of the city, discounts in cafes and cinemas. The applications of this kind will definitely increase cultural participation rates and make cultural life more accessible and enjoyable for both citizens and tourists.

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KRYPTOWÄHRUNGEN ALS ZAHLUNGSSYSTEM OHNE PROBLEME

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***Abstract**: In diesem Artikel handelt es sich um die Einführung der Kryptowährungen in unser Leben und um ihre Bedeutung für die Zukunft der Menschheit. Es wird auch besprochen, welche Perspektiven Kryptowährungen in Russland für die Versorgung des stabilen Wirtschaftswachstums haben.*

***Key words**: Kryptowährung, Blockchain, Zahlungssystem, digitales finanzielles Vermögen, Wirtschaftswachstum.*

Heutzutage werden Kryptowährungen Tag für Tag populär. Und viele Leute wissen nicht, was eigentlich Kryptowährung ist. Kryptowährung ist ein digitales Zahlungsmittel, das auf die Prinzipien der Kryptographie basiert, um ein dezentrales und sicheres Zahlungssystem zu realisieren.

Die Geschichte von den Kryptowährungen wurde am Ende des vorigen Jahrhunderts angefangen. 1990 gründete David Chaum das Finanzunternehmen DigiCash [1]. 1990 versuchte Citibank, ihre eigene Kryptowährung zu schaffen. 1998 bot Wei Dai eine neue Art des Zahlungssystems an [2]. Es musste dezentralisiert und elektronisch sein. Scheinbar waren diese Ausarbeitungen der Zeit voraus, weil alle Arbeiten wurden gestoppt.

Deshalb ist die berühmteste Kryptowährung der Welt Bitcoin nur 2008 entstanden. Damals sendete der Gründer von dieser Währung Satoshi Nakamoto (seine Persönlichkeit ist bis heute nicht identifiziert) einen Brief mit der Bitcoins Beschreibung für die hochqualifizierten Finanzexperten. Dieser Brief wurde übrigens auf die Ideen von Wei Dai basiert. Aber Satoshi bekam eine Absage. Dann begann Satoshi Nakamoto, selbstständig zu arbeiten. Schon am 12. Januar 2009 erfolgte die erste Überweisung, am 22. Mai 2010 fand der erste Kauf statt. Danach startete heftige Bitcoins Entwicklung [3].

Wollen wir Vor- und Nachteile der Kryptowährungen betrachten. Man kann Kryptowährung von überall auf der Welt nutzen. Ein weiterer Vorteil ist

die Dezentralisierung, d. h., dass alle Überweisungen ohne Vermittler stattfinden und im Netzwerk gespeichert werden. Außerdem gibt es kleine Transaktionskosten im Vergleich zu den gewöhnlichen Währungen. Privatnutzer und Privatsphäre sind durch die Verschlüsselung geschützt. **Anschließend ist** die Kryptowährung auf das Prinzip der Transparenz aufgebaut. Folglich, kann man sehen, wann welche Transaktion und zu welcher Höhe stattfinden. Was Nachteile anbetrifft, sind erhebliche Preisschwankungen der erste Nachteil. Infolge der starken Verschlüsselung erleichtern die Kryptowährungen Geldwäsche und Steuerhinterziehung. Fast keine Shops akzeptiere die Kryptowährungen akzeptieren.

Die von uns betrachteten Technologien können der Menschheit sehr nützlich sein. Dank der Verteilung der Information und deren Transparenz können die Blockchain benutzende Leute, Organisationen und Behörden alle Verträge ohne Vermittler und unnötige Bürokratie abschließen. Außerdem wird das Niveau der Kriminalität, Betrügerei und Korruption gesunken, wenn Blockchainorientierte Plattforme oder Währungen mit öffentlichen Informationsangaben genutzt werden. Infolge der geringen Transaktionskosten, die Blockchain versorgen, können die Menschen, Unternehmen und sogar Staaten viel Geld sparen und ihre Kosten senken.

Sehen wir ein praktisches Beispiel. Venezuela verfügt zwar über die größten Ölreserven weltweit, steckt aber dennoch seit Jahren in einer schweren wirtschaftlichen Situation. Im Oktober 2017 hat Präsident Maduro über die Einführung Venezuelas Kryptowährung, die mit dem Erdöl abgesichert wird, informiert [4]. Heute sehen wir ein Ergebnis: der Haushalt von Venezuela wurde durch El Petro mehr als auf 5 Milliarde gesteigert [5].

Und welche Pespektiven haben Blockchain und **Kryptowährungen in Russland?** Es gibt zwei Wege. Entweder das Verbot von der Kryptowährung, oder die Schaffung eigener Kryptowährung Russlands. Blockchain wird sich unabhängig von der Entscheidung entwickeln. Im Januar wurde das Gesetz „Über digitales finanzielles Vermögen“ veröffentlicht, in dem Kryptowährungen echt anerkannt wurden [6]. Außerdem hat Präsident Putin im Oktober einen Vorschlag gemacht, Kpyptowährung von Russland zu schaffen. Sie wird einige Besonderheiten haben: Zentralisierung, Absicherung (wie El Petro) mit natürlichen Ressourcen und Identifizierung der Benutzer. Deshalb zweifeln viele Leute daran, ob es eine echte Kryptowährung sein wird oder nicht.

Digitale Wirtschaft und die Kryptowährungen können zur Stärkung Russlands führen. Heute kommt der neue Trend auf: die Entstehung Russlands

nicht als industrielles, sondern als finanzielles Zentrum. Das kann man mit natürlichen Verfahren und ohne Konflikt erreichen, weil Russland über ziemlich billige Elektrizität, entwickelte Internetinfrastruktur und Leistungen im Bereich der Informationssicherheit verfügt.

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SISTEMAS DE PAGO EN ARGENTINA: TENDENCIAS Y PERSPECTIVAS

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Abstract: *With the development of the technology century, the economy has gained access to development in the field of the Internet industry. The article presents the general scheme of work electronic payment systems and possible perspectives.*

Key words: *electronic payments, digital market, payment system, credit.*

Argentina tiene una población a eso de 44 millones de personas [4]. El PIB nominal llegó a los 541.7 mil millones de dólares en el año 2016. El ingreso per cápita fue de 14 062 de dólares según la PPP en dólares internacionales equivalentes en el 2016 [2].

Durante 2016 se implementaron medidas para incrementar y facilitar las operaciones electrónicas a fin de eliminar el uso de efectivo y permitir al usuario de servicios financieros que opere sin acudir a una sucursal bancaria. Estas medidas facilitan las transacciones bancarias de los usuarios financieros, en un marco de seguridad y eficiencia.

Además, ha sido creada la Plataforma de Pagos Móviles. Este nuevo canal de pagos a través del cual las entidades financieras deben ofrecer la forma de Pago Electrónico Inmediato (PEI), permite realizar pagos a través del celular,

tableta o computadora móvil, con débito y crédito en línea, en cualquier lugar y sin costo a través de tres modalidades: el POS Móvil y el Botón de Pago, modalidades orientadas a comercios y la Billetera Electrónica, más funcional para transferencias entre personas.

El e-commercio en Argentina creció el 61,7% y para el año 2018 se espera un crecimiento similar. En Argentina hay 603.000 empresas registradas y un millón de pymes y tiene una página web destinada para realizar las ventas. La penetración del e-commercio en la industria minorista en general es menor al 2% y a nivel global ya está superando el 10% [1]. En cuanto a los pagos generales en Argentina corresponden al 23% y en Estados Unidos al 50%.

Actualmente, en Argentina predominan transacciones que se llevan a cabo con tarjetas de sistemas de pago, como Visa y Tarjeta Naranja. En 2016, estos sistemas constituyeron el 49% de la emisión de transacciones de pago aproximadamente. Y el uso de tarjetas con el sistema Visa creció un 13% en 2015, y son 35 millones de tarjetas de crédito, 26 millones de tarjetas de débito y más de 400 mil empresarios. MasterCard y American Express tuvieron un 19% y un 13% respectivamente. El 19% restante de las tarjetas fueron emitidas por otros importantes sistemas de tarjetas de pago de América Latina, a saber, Nativa, Cabal, Tarjeta Shopping, Nevada, Kadicard, tarjeta Diners y otros [5].

En el mundo, los países con mayor penetración de tarjetas de crédito son los más fuertes económicamente, mientras que los países con mayor número de tarjetas son Estados Unidos, Brasil y Canadá, con valores superiores al 60%. Argentina ocupa el quinto lugar debajo de Chile con un indicador del 35%. El uso de tarjetas de crédito en Argentina llega a 6 millones de usuarios, y esto es casi el 14% de la población.

El nuevo gobierno es oligárquico y hay barreras que van a ser desbloqueadas. El sistema de pagos hoy bloquea la oferta del mobile post, un lector de banda magnética que se pone en el celular. Se puede vender en mercadillo o rastro con su tarjeta de crédito o a través del mobil. Los medios de pago deben corresponder a las necesidades de empresarios.

Modernizar el sistema de pagos permite aumentar la competitividad de la economía y generar empleo productivo. Incentivar el uso masivo de medios de pago electrónicos y facilitar su acceso a toda la población es importante para potenciar los beneficios de la bancarización., Además, contribuye a obstaculizar el crimen organizado, el narcotráfico y el lavado de dinero, así como a formalizar la economía, lo que hace mas facil la carga tributaria.

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FOREIGN BANKS IN RUSSIA: AN OPPORTUNITY OR DOUBTFUL INVESTMENT?

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Abstract: *The author considers changes regarding the banking system over the past two decades. The author proves that foreign banks have become much more important in domestic financial intermediation. It is underlined that there is a number of serious problems and unresolved questions of interaction between the foreign banks and the domestic legislation.*

Key words: *foreign banks, financial sector development, financial crisis.*

Nowadays, majority of studies finds support for the hypothesis that banks go abroad to serve their domestic clients with overseas operations [1]. C. Buch and g. DeLong have found that foreign banks tend to go to larger than less developed economies, where there is the prospect for economies of scale and future growth opportunities [2].

In our opinion, the primary reason why foreign banks invest in Russia is market opportunities. There is the number of arguments to it.

Firstly, Russia is the 9th world country by GDP [3], rich by natural resources; some kind of technologies, having educated and relatively cheap work force and providing opportunities for investment.
Secondly, Russia is among highly risky, speculative and profitable financial markets (with a Central Bank of Russia rate of 10% by February 2017) [4].

Thirdly, Russia is oriented on the foreign lending market, natural resources companies and as well as under-serviced population of 130 million people.

Considering the above mentioned facts, it would be fairly noticed, that the modern Russian banking sector, as a part of the whole political and economic system in the country goes through considerable changes.

Banking system, as any other system, requires high level of policy and legislation development. Nevertheless, Russian banking system suffers from the absence of policy. Current practice demonstrates two main problems, existing in the Russia banking system:

1. Monopolistic role of the Bank of Russia and its uncertain legal status.
2. Undefined foreign banks' legal regime in Russia and political elimination of the foreign banks' branches.

What direction is more productive and highly effective for the Russian banking sector: the monopolized supervision of the Bank of Russia over «under-banks» activities or separated regulation structure?

In our opinion, it is the monetary policy and banking supervision. The uncertainty with the legal status of the RF Bank generates another serious problem for foreign banks in Russia. There are some problems, referring to their activity on the territory of Russian Federation.

On the one hand, Russian legislation does not impose any formidable restrictions on the foreign banks' capital penetration.

Although, current situation shows, that our government represented by the Central Bank of Russia together with the Ministry of Finance is not interested in developing the economic relations with other countries though their banks' branches.

It seems risky for foreign banks to be controlled by the Central Bank of Russia, as it has wide powers to supervise practically all directions of the foreign investors' activity. Taking into account that fact, that there is no policy document, the legal environment for the foreign investors is highly unstable and hazard.

Hereby, the government solves the legislative problem with the policy and the foreign investments. Moreover, the level of the capital flight out will decrease substantially.

In addition, one of the most serious and influent organizations in the Russian banking system, the non-state and non-commercial organization - The Association of Russia's Bank that consists of more than 570 organizations-members having established the program «National banking system in 2010-2020».

According to this program, the development of foreign banks on the territory of Russian Federation decrease the efficiency of the national Banking system and can become a reason of the economic slump. Furthermore, it can lead to the loss of the state control over the banking system.

The demonstrative example of the lack of legislation clarity in the banking sector is a huge amount of the legal documents (from that important, like Federal Laws to those, with a weaker legislative power, like the telegrams on Ministry of Finance).

Taking into account this information the number of different legislative regulations, it seems efficient to simplify and, probably, codify the banking law. The particular attention should be focused on modifications to the foreign investors' activity, registering and licensing procedures. In addition, it is important to provide healthy competition in the financial market that would include comfortable conditions both for domestic banks and for foreign investors, excluding a possibility for discriminating any party. United efforts of qualified specialists in the banking sector and lawyers are able to bring the country to a new level of the progressive economy, without any fear from the international parties.

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SIX RULES OF DOING BUSINESS ABROAD

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Abstract: *The article considers the main rules of doing business in a foreign country. Following the required guidelines helps assess possible challenges in terms of costs, laws, specific industry and avoid financial, operational and reputational damage while expanding business abroad.*

Key words: *business abroad; partner; costs; employing staff; IPRI index; Corruption Perception Index.*

The driving force of modern economy is globalization. There are many entrepreneurs and companies which try to do business abroad nowadays. However, before considering 'export' strategies' it is absolutely necessary to think through six critical areas and evaluate challenges which might arise in the process of expanding abroad. Doing business in a foreign country can be both rewarding and frustrating, or sometimes even a disastrous experience.

First and foremost, one should consider a partner. If you have never engaged in foreign markets before, it may be useful to identify an in-country agent who can introduce you to clients and inform you of local laws and customs. In addition, they can provide critical local knowledge of laws, regulatory requirements and other legally required approvals, which allow performing one or more aspects of the business (e.g., manufacture, collect payments, bid on government contracts, etc.) or inform you of what your own business may not be legally allowed to do [2].

The second rule to become successful is commercial awareness or business acumen with all specifics about the country where you plan to set up business. It has been found that companies often forget about using available free resources. One of the easiest ways to get a quick assessment of how challenging a given market might be is to review the latest data from Transparency International (TI). TI produces an annual report, which ranks each of the world's nations on their Corruption Perception Index (CPI) [1]. In many countries they have their own sources of information, for instance, in India it is the Confederation of Indian Industry (CII), which plays a proactive role in India's development process. In the United States the Chamber of Commerce and the Consulate General's office provide extensive materials on how to do business in America.

It is necessary to remember the third rule - think through your costs. It is important to develop and estimate the total costs of doing business under two scenarios. The first one is the total cost associated with a successful entry of your business into your new target market. The second is the total cost associated with a failed entry, which should include all the expenses associated with winding down operations [2].

Sometimes businessmen forget about the fourth rule underestimating how complex and expensive employing staff can be. While many aspects of moving into a new market may be similar to the markets in which you currently operate, there can be some problems with operational details behind employment. Therefore, you should get some advice about labour laws, workers' compensation and retirement funds.

The fifth rule emphasizes the need for remembering what works in one market will not necessarily work in another. For example, in the US working with local and regional Chambers of Commerce can be highly effective because regulations and general employment practices tend to be transparent, publicly documented and well understood by both employees and employers. While differences in employment laws do exist from one state to another, in general, similar "rules" are followed across the country. To compare, in China the situation is far more complex as this country has a narrower way to customers through state-owned enterprises. The Chinese personalized networks of influence often require newcomers to navigate a complex set of relationships before being able to get to the key decision-maker.

Last but not least, you should pay attention to political climate and property rights, because some countries around the world have a record of confiscating property and/or businesses owned by foreigners, consequently, it is better to steer clear of those countries. Others have impeccable histories with solid property rights and full access for foreigners. Finding a jurisdiction with minimal political risk is crucial. Taking a look at an index of international property rights can be very helpful with this. The new report reveals that the slow and steady improvement of property rights continues unabated. This year the world property rights improved on average from 3.45%, to 5.63. Africa, a region notorious for corruption and its failure to protect private property rights, made the most improvements overall. Leading the way was Ethiopia, which improved its International Property Rights Index (IPRI) score by 12%. The driving force behind Ethiopia's success refers to the subcategory of physical

property right protections, which includes not just protecting property rights but also registering property and ease of access to loans [3].

To sum up, companies can avoid financial, operational and reputational damage by considering six critical areas outlined above before executing their strategies abroad.

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STUDENT ENGAGEMENT ANALYSIS SYSTEM: A REVIEW OF THE LITERATURE

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***Abstract**: The following paper reviews the literature on the topic of student engagement recognition, data assessment and machine learning techniques used for analysis of such data. Student engagement is considered to be one of the most important aspects of modern education as it provides the valuable feedback for lecturers and allows them to make swift corrections in their teaching approach. Existing methods for engagement analysis are based upon wide variety of machine learning techniques for both data mining – extracting and labeling of valuable data from student's snapshots, and evaluation of engagement levels itself. In this paper we will examine different approaches for data assessment that are used in the articles and provide an overview of a machine learning algorithms used for prediction of engagement levels. We will conclude with a discussion of a possible adaptation of those techniques in order to improve the quality of educational courses at university level.*

***Key words**: data assessment, student engagement, engagement recognition, machine learning, classification.*

With the current growth of online education, the topic of student engagement recognition has become even more relevant. While classic classroom education approaches imply the ability of the lecturer to understand the audience and adjust certain aspects of teaching on the fly if the student requires him to do so for better understanding of the subject and involvement in

the educational process itself. However, online courses lack those components as the lecturer has no means of knowing whether the students are engaged in the process or not. The necessity of online educational platforms in acquiring such tools has driven researchers towards investigating the nature of engagement as well as developing technology to evaluate it and classify students on their engagement levels for each snapshot taken. One of the main challenges in the way of research were those connected to data assessment task, namely a procedure of initial labeling of student engagement on the data samples by experts. Lack of coordination between experts can often be observed in the process of assessment data with cognitive components in it, which in our case may result in biased or incoherent data samples in the observed dataset. Those flaws may have a negative impact in an overall efficiency of the student engagement recognition system. The other problem involved is the topic of machine learning algorithm choice – while many intellectual data analysis methods are available in the moment, not all of them can provide high enough accuracy of classification when applied to this particular task. Comparative analysis was used by different researchers in order to solve this problem, which surprisingly leads to different conclusions for each of them. In this paper we will be focusing on those two problems by investigating the previous work and then we will briefly discuss the potential of implementation of the best practices in the structure of educational process of modern university.

As far as data labeling is concerned, there are several approaches that are commonly used by the researchers: crowdsourced approach, expert-based approach, or in-house assessment approach. First one implies the usage of any of the crowdsource platform, where any volunteer can provide help with labeling the data. Expert-based approach usually requires to hire a qualified team of assessors, which doesn't necessary guarantee the quality of annotation. And the last one is based upon inviting assessors from the initial research team or getting teachers involved in the process of labeling their own students.

Each of those methods have their own advantages and disadvantages. For instance, Kamath, Biswas and Balasubramanian [3] used a crowdsourced approach in their research. They argue that by this means they were able to obtain a large amount of different labels for each sample of the dataset in question. However, that came with a price of inconsistency in annotation markdowns provided. So while the authors were able to save some time on the initial preparation stage, they were forced to invent a method that will remove those contradictions from the dataset.

The expert-based approach was described in the works of Aslan, Cataltepe, Diner, et al. [1] and Hua, Long, et al [2]. The paper was dedicated to the examination of different machine learning algorithms, in which the authors argue that their expert-based approach that uses individual annotation without intersection between the assessors provide an optimal accuracy for this task. However, that leaves all the labels unverified as there is no other opinion on the matter involved. Hua, Long, et al [2] in their paper approach this problem from the other point of view. They deliberately create an additional quality control mechanism by using kernel machine methods applied to classification with common decision boundaries. By doing so, authors ensure the quality of their annotated dataset, but that will require additional computing power to run on a daily basis.

The example of the last approach can be observed in the article by Whitehill et al. [5]. In their work the authors use the group of students and teachers from university to make annotations. They focus on the question of how their assessment party perceives snapshots and what the engagement level "appear to be". The authors of this paper acknowledge the fact that they sacrifice the overall quality of labels for the sake of simplicity of the assessment procedure. However, they still apply a novel cross-validation technique in order to remove biased labels from dataset, which will inevitable appear due to the fact that student and teachers have to evaluate people they might know.

As we can see, each of the solutions prioritize different resources: time, computing power or quality of labeling. In order to implement engagement analytics techniques in university medium we have to consider those resources as well. Crowdsourced approach usually involves monetary encouragement for volunteers that take part in labeling and also requires data to be public, which might violate rights of students. Hence, one of the latter methods or combination of those should be used in our research. That will allow to make the solution cost-efficient while still maintaining a reasonable level of accuracy in the process. Cross-validation technique proposed by Whitehill et al. [5] also shows the great promise in the pursuit of this task.

The other important part involves the implementation of machine learning algorithms for automatic engagement recognition. With our labeled dataset in hand we are able to use those analysis techniques to form a proper engagement level prediction model. To start off, we observed the implementation of logistic and linear regression methods used by Whitehill et al. [5]. While the results of

those models were quite modest, they still show the potential of machine learning algorithms.

Another approach found in literature is a support vector machine model (SVM), used by Kamath et al. [3]. SVM is well known for a reasonable simplicity of its' computation, however it has several limitations. For instance, in order to replicate the result of 85% accuracy we will have to adjust the format of our dataset which might be problematic given the fact that Kamath [3]. studied online course environment.

In the process of an examination we also found an interesting application of fusion model used by Psaltis et al. [4]. The authors of this paper decided to create environment of their own in the form of prosocial game. By doing do, they were granted the ability to control the engagement level of the students which solved the problem of annotation altogether. Fusion model later on was used to obtain highly accurate predictions based on the original dataset. In our case, the environment differs from that of the Psaltis's article [4] in many ways, but in the same time the model seems to be applicable as well.

The last example found in the academic literature belongs to Aslan et al [1]. In their paper authors tried wide variety of algorithms such as decision tree, random forest and naive bayes in their research. After comparing those methods, they presented a suggestion that a boosted decision tree algorithm and a random forest algorithm can be used for obtaining an accurate prediction. As a verification of that theory we decided to use decision tree in our case as a prove of concept. The result of approximately 80% accuracy suggests that methodology proposed by Aslan [1] can indeed be used in our case, however a further research on the matter is still required. We should also note that while some of the authors do comparative analysis with the previous works, they use their own dataset for it, which unfortunately makes such an analysis void by the nature. Applied to our case, we should run a proper testing procedures in the course of study, with expert predictions, basic regression models and decision tree model used as a benchmark for comparison.

To summarize, we have explored different approaches for data assessment and examined various machine learning model for engagement prediction. The major limitations of the observed articles are: differences in medium in which the research took place such as online medium or artificially constructed environment, assorted structure of datasets in those papers and diverse resource cost of implementation. Difference in environment leads us to believe that all the aspects of the research should be reviewed in order to determine whether it

should be used in our study for classroom education or not. Construction of dataset being the integral part of any data analysis research also requires to consider experience described in the articles, which may be found difficult given the fact that our methodology for data extraction can differ significantly. We are planning to work on those issues in the further course of study as well as to work on determination of the best practice on data annotation and highest rated prediction model for student engagement.

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DIGITAL ECONOMY AND ITS DEVELOPMENT IN RUSSIA AS A CONDITION FOR ENSURING THE ECONOMIC SECURITY OF THE STATE

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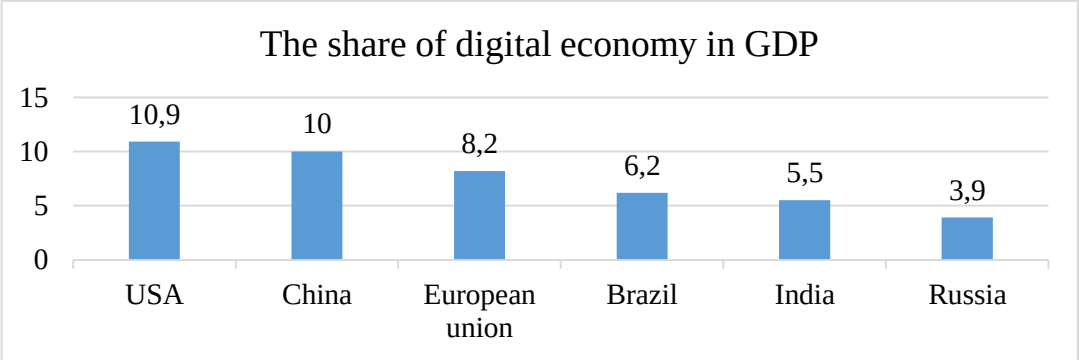
Abstract: *The article describes the problem of the development of digital economy in Russia and the ways of its solution. The interrelation between the development of the digital economy and the level of economic security of the country is analyzed.*

Key words: *digital economy; economic security; GDP; development of digital economy.*

Digital economy is considered to be any economic activity based on digital technologies [2]. In the early 2000s, digital economy began to occupy a certain place in the country's economy and from that moment began to be perceived as a separate sphere of the economy. According to some economists, digital economy is the future stage of development of the global economic system [1, p. 182].

In early 2017, the international consulting company McKinsey & Company conducted a research, which revealed that in most developed countries the share of the digital economy in GDP is between 8 and 11%, herewith in Russia, this figure was only 3.9%. However, in other developing countries – Brazil and India – these figures were significantly higher [3].



Realizing that the information technology and the digital economy are the key directions of economic development, the Russian government has taken certain steps in this sphere. In 2017, the main directions of the digital economy development were outlined: the formation of full-fledged regulatory regulation, the development of end-to-end technologies, the development of information infrastructure, the provision of information security, the increase in the number of specialists and the quality of education in the field of information technology. [4]

The Government of the Russian Federation has set an ambitious but achievable goal – the tripling of the digital economy by 2025. To achieve this goal, joint efforts of the state and companies are required.

As it is expected from the government, the following measures should be undertaken: modification of the operations in the production field; new approaches to learning and retraining of staff; regulation improvement and increase of its flexibility; involving the population in the digital economy, ensuring citizens with an accessible ICT infrastructure, developing digital

literacy population and carrying out further digitalization of the state and municipal services.

In turn, the activities of companies should be related to the following approaches. It is necessary to develop a culture of constant innovation on the base of digital companies; passive position will inevitably lead to the loss of competitiveness. Industrial companies are the foundation of the Russian economy. Early investments in digital technology should take the lead in this yet unformed direction. The success of digital transformations requires active cooperation with educational and research organizations, as well as high-tech companies.

Such a serious approach on the part of the state is fully justified because the development of the digital economy directly affects the growth of the national economy, and, accordingly, the level of economic security of the country. Lagging in this area inevitably leads to weakening and erosion of human potential, because new jobs, modern companies, attractive life prospects will be created in other successful countries. And young educated and talented people will leave for these successful countries. And as a result, our society will lose vitality and energy of development.

Thus, in conclusion it should be underlined that the digital economy is one of the key areas of the development of any country. Russia is trying to keep pace with all the achievements in this field; the appropriate measures have been taken and far-reaching goals have been set. The government realizes that to the digital economy development maximum attention should be paid because without digital economy, a country cannot provide economic security and cannot claim a leading economic position in the world.

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NETWORKING

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Annotation*: In diesem Text handelt es sich um die Bedeutung von Networking und Networkingbeziehungen für die Informationswirtschaft. Networking ist kein Produkt der digitalen Wirtshaft, aber dieses System lässt digitale Wirtschaft entwickeln , weil sich digitale Wirtschaft in Interessen des Menschen entwickelt.*

Schlüsselwörter: *Networking; informelle Beziehungen; horizontalle Verbindungen; Schaffung neuer Möglichkeiten; berufliche Kontakte.*

Eine der wichtigsten Erscheinungen der Gegenwart ist “Digitale Wirtshaft". Vom ersten Augenblick scheint es, dass dieses von uns präsentierende Thema nichts gemeinsames mit der digitalen Wirtshaft hat. Aber das stimmt nicht. Networking ist wirklich kein Produkt der digitalen Wirtshaft, troztdem gibt es eine richtige Koppelung zwischen der digitalen Wirtshaft und dem System.

Erstens, muss man verstehen, was Networking ist. Wir können dieses Wort als Kunst des Kunden und der Aufrechterhaltung von informellen Beziehungen definieren. Mit Hilfe von Networking kann man horizontalle Verbindungen schaffen [2].

Man unterscheidet 2 Arten von Networking: privat und beruflich. Das private Networkingziel ist es, z.B., Interessen gemeinsam zu erleben, etwas Neues zu erfahren. Und das Ziel der beruflichen Kontakte ist es, Karriere auszubauen, neue Jobmöglichkeiten zu finden und so weiter [3]. Heute wollen wir die Möglichkeiten des beruflichen Networkings und seinen Einfluss auf das Business analysieren.

Networking startete jedoch nicht erst im Internetzeitalter. Schon Jahrhunderte vor der weltweiten Vernetzung durch das Internet haben **Geschäftsleute Netzwerke aufgebaut** und Königshäuser Hochzeiten

arrangiert, um Vorteile aus diesen Verbindungen zu erlangen. Dadurch ergaben sich sowohl nützliche private Kontakte, als auch **berufliche Perspektiven**. Auch Job- und Karrieremessen bieten heute noch eine gute Gelegenheit, das Netzwerk zu erweitern. Solche Veranstaltungen dienen nicht nur der Kontaktaufnahme mit Absolventen, sondern auch dem persönlichen Informationsaustausch zwischen den einzelnen Unternehmen.

Im Bewerbungsprozess kann die Empfehlung von Kontakten den entscheidenden Vorteil bringen. Etwa 40 Prozent aller Jobs werden durch persönliche Beziehungen vergeben [1].

Was Russland anbetriff, so werden in Russland sowohl Seminare, als auch Master Classen zu Networking veranstaltet. Einer der bekanntesten in Russland Groupen ist Tonny Robbins Group. Der Club existiert schon 7 Jahre. "Meet Partners Klub" ist die Organisation, die von Tony Robbins und von seinem Vertreter Gil Petersil gegründet wurde.

Viele Menschen sind Mitglieder dieser Organisation. Sie leistet eine große Hilfe den Kunden bei der Aufnahme der Geschäftskontakte, veranstaltet Seminare und organisiert Veranstaltungen, wo sich die Personen treffen und wo neue für sie interessierende Kontakte aufgenommen werden. Gleichzeitig damit übt Networking einen großen Einfluss auf die digitale Wirtschaft aus.

Jetzt ein paar Worte über LinkedIn. LinkedIn ist ein webbasiertes soziales Netzwerk. Es werden verschiedene Ziele verfolgt. Einerseits, sind sie miteinander aufs engste verbunden, andererseits, werden sie apart betrachtet. Die Ziele sind folgende: Pflege bestehender Geshäftskontakte; Knüpfen von neuen Verbindungen; Unternehmungsprofilerstellung; Gruppenbeitrit; Gruppengründung. Im Jahre 2016 wurde LinkedInin Russland gespärt, und es hat negativ die Shaffung und Durchrechterhaltung von beruftlichen und informellen Beziehungen beeinflusst.

Es lohnt sich positive Aspekte von Networking zu nennen. Networking ist wirklich in der Lage, ideologischen Menschen zu helfen. Aber wie? Wenn es eine gute Idee gibt, aber es gibt kein Startkapital, so kann man mit Hilfe von Networking-Clubs Investoren anziehen.

Das Vorhandensein von der weiteren Kommunikation vereinfacht Probleme zu lösen, spart viel Zeit und Geld, konzentriert sich auf das Geschäft.

Alles zusammen lässt Schlussfolgerungen ziehen :

Die sogenannten „Gute Kontakte" können uns Vorteile im beruflichen und im privaten Leben, so wie auch die nachhaltige Entwicklung bringen. „Gut" bedeutet, dass nicht die Anzahl der Kontakte, sondern deren Qualität

entscheidend ist. Networking ist keine Einbahnstraße und funktioniert auf Dauer nur, wenn sich für beide Seiten Vorteile ergeben können.

Dieses System lässt die digitale Wirtschaft entwickeln, weil sie sich in Interessen des Menschen entwickelt.

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WHY DOES RUSSIA NEED DIGITAL ECONOMY AND HOW DOES IT ENSURE ECONOMIC SECURITY?

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Abstract: *The article provides the data about the beginning of the digital revolution and the program that will be implemented in the Russian Federation. The strategic goals and objectives set by the government and the impact of the digital economy on economic security are considered in the article.*

Key words: *digital economy; digital revolution; development of the digital economy; digital economy strategy; economic security.*

Digital economy is a system of economic, social and cultural relations based on the use of digital technologies. Sometimes it is called ‘internet economy’ or ‘new economy’. The development of digital economy began with the digital revolution. The digital revolution is the transition from mechanical and analog electronic technology to digital electronics, which appeared in the late 1950s. The term also refers to the radical changes caused by digital computing and communication technologies in the second half of the 20th century. Similar to the agricultural and industrial revolutions, the digital one marked the beginning of a new informational era [5].

Developing the digital economy of Russia at the governmental level began after the message of Vladimir Putin to the Federal Assembly on

December 1, 2016, when the President of our country pointed out the need to form a new web economy to increase the efficiency of industries through information technologies. The program for developing a new type of economy, a digital one, was approved on July 28, 2017. The goal of the program is to enhance the life of citizens by improving the quality of goods and services using modern digital technologies. The government commission on IT approved plans to develop the digital economy providing 520 billion rubles by 2020 [4]. The government is planning to allocate 5 basic directions for the development of the digital economy in Russia: normative regulation; qualified personnel and education; the formation of research competencies and technical facilities; information infrastructure and information security. As it is stated, managing the program will be provided at three levels: strategic, operational and tactical. At the strategic level, the system establishes the direction of the development of the digital economy, goals and plans. At the operational level, implementation of management functions is provided, at the tactical level there is control over the implementation of plans and projects [1].

In the opinion of experts, digital economy is a sphere of life developing at an accelerated velocity, which completely reforms the usual economic ties and existing business models. The virtual part of life is becoming a place where new products and ideas are created. Testing and approbation of fresh inventions are becoming easier, because there is no longer any need to carry out real crash tests of products. Computer visualization allows you to evaluate all the advantages and disadvantages of a new product without unnecessary financial costs [3].

According to the estimates of the financiers, in the nearest future all participants in this sector are expected to have considerable ‘digital dividends’, namely, a decrease in the unemployment rate, a reduction in costs in the production of goods, as well as an increase in economic security. E-commerce is able to ease crises with the help of accelerated sales of services and products; virtual payment systems accelerate commodity exchange; Internet advertising, with its effectiveness, surpasses all previously known ways of notifying new kinds of goods. It should be noted that digital technologies will be developed using modern technologies, such as large data, neurotechnologies, artificial intelligence, distributed register systems, quantum technologies, new production technologies, industrial Internet, robotics, sensorics, wireless communication, virtual and augmented reality.

The project of the Ministry of Communications draws great prospects for the introduction of digital technologies in all spheres of life. Management of

resources (water, energy, fuel) is planned to be carried out using integrated digital platforms, which contributes to increasing economic security. They will allow uniting all market participants in the information environment, reducing transaction costs and changing the division of labor system. It is planned to create 50 ‘smart cities’, in which 50 000 000 people will live [2].

In conclusion, it should be noted that the development of new technologies contributes to the improvement of society life. The creation of ‘smart cities’ will allow people to contribute to the city management expressing their opinion on special information platforms. The digital economy, thanks to a complex of technical and organizational events, creates comfortable living conditions and business activities. The logical continuation of the development of civilization is impossible without the development of the digital economy, and our country is developing in this direction.

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INTERNET OF THINGS AS A PROGRESSIVE TOOL OF RUSSIAN ECONOMY

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***Abstract**: The article describes the introduction of the 'Internet of things' in various sectors of the Russian economy, describes the benefits of 'smart' devices in the optimization of business. In addition, attention is paid to the possible risks and obstacles to the development and dissemination of IoT products.*

***Key words:** digitalization, Internet of Things (IoT), 'smart' devices.*

It is obvious that a process of digitalization of the economy has been unfolding: information technologies have become an integral part of the lives of most countries; and Russia is not an exception. There are a lot of high-tech tools that help to increase digital potential of our country. The aim of this article is to clear out the significance of 'Internet of Things' in this context.

First of all, let's define the notion of the term. As the research shows, 'Internet of Things' is considered to be the unification into a single computer network of electronic (physical) devices capable of exchanging information with the help of special software and built-in sensors, herewith the control of data exchange can be carried out remotely without human participation [4]. IoT develops in 3 ways: basic (general technologies for solving any problem), thematic (techniques for solving specific tasks), environmental (outer innovations serving its purpose) [2]. Besides, IoT products also can be divided into technical improvement-oriented and business management tools.

Next to be discussed in this article is the possibilities of the most perspective ideas and financial benefits by means of IoT goods and services distribution in some economic areas, namely, in power sector, public health, agricultural industry and city system. Large-scale centralized power supply system in Russia possesses more than 2.5 million km of power lines, about 500 thousand substations, 700 power plants with a capacity of over 5 MW. However, today's penetration of the 'Internet of Things' in the Russian energy sector is at the primary level [3]. But still it should be noted that IoT's products have already been implemented in energetic industry: the new machinery in Tatarstan (transformers, generators, switches) are with remote control systems. In public health, special nanoscale sensors are introduced for collecting information on the clinical indicators of the victims at the moment, then this information is analyzed and sent to the doctor, who will be able to give recommendations for the patient care even at a considerable distance, which is very important for our country with its vast territory and shortage of specialists in many regions. Among the key developments of the Internet of Things in agriculture industry there is a set of technologies designed to ensure the planning of sowing by selecting the optimal level of humidity, temperature, mineral content in soils which will reduce the damage to the earth while increasing the productivity of

farms. IoT usage in the change of appearance and functioning of city system is indeed priceless. Control over the social stability, ecological situation, resource consumption in living houses, immediate call to security services, solving the problem with traffic jams are the very small parts of all the positive effects caused by realization of ‘smart city’ IoT concept. The state is constantly investing in the ‘smart city’ project and strongly supports the development in this area. The Republic of Tatarstan has been building Innopolis City – a special economic zone, which is being created for the development of projects in high-tech industries [1]. It is planned to create a cross-industry testing ground in the city for pilot projects in the sphere of IoT.

That will bring us to the next point connected with actual threats because of IT-development. The main of them is existing gaps in cybersecurity when lots of significant medical, banking, transport and personal structures could be hacked and broken. Other trouble is in law regulation and lack of contemporary standards. IOT devices receive confidential information on a daily basis about a person's whereabouts, state of health, and other details of private life that may fall into the hands of fraudsters. Against this background, the issue of legal regulation of activities related to the collection, storage, transfer and modification of personal data by technical devices remains open [1]. So, it is obvious that the government needs to create a favorable and safe environment for innovative economic instruments.

In conclusion it should be noted that according to surveys, most of Russian businessmen, scientists and politicians make good predictions about IoT market as it has already showed the growth of efficiency in many areas. Eventually, we should confess that Internet of Things has every chance to break ahead in the field of digitalization of economic processes, turning to its potential as a means of urban improvement, improving productivity, the quality of domestic products, and, besides, there is a big possibility to establish world exports of IoT tools produced in the country. But nevertheless, we have to bear in mind that much attention should be paid to the possible risks and obstacles to the development and dissemination of IoT products.

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E-COMMERCE AS A COMPONENT OF DIGITAL ECONOMY

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Abstract: *In this article, the author describes the importance of electronic commerce, its development in recent years. Also the author shows how e-commerce affects the economic security of the Russian Federation and the development of the Russian economy.*

Key words: *e-commerce, digital economy, Russian economy, e-commerce development.*

Electronic commerce constitutes a significant institution of the digital economy, penetrates a large number of legal relationships emerging in the sphere of trade, and covers the whole spectrum of relations – direct interaction of consumers with consumers (C2C), interaction of sellers with consumers (B2C), interaction between entrepreneurs (B2B), interaction of business and government in electronic form (B2G), etc.

United Nations Conference on Trade and Development, abbreviated as UNCTAD, estimates that the global turnover of e-commerce in 2015 was $ 22.1 trillion [2], which means an increase in e-commerce by 38% compared to 2013. The above statistics reflect the role of electronic commerce in the current conjuncture of national and world markets. The given data not only testify to fast rates of growth of electronic trade, but allow assuming that the economy, which will not be able to join the new system of economic relations, in the coming years will be much inferior in its development. And the digital economy is expanding in several ways.

At present, the Russian national market estimates the amount of electronic commerce in 2015 at around 550 billion US dollars in the B2B and B2G sectors and 760 billion rubles in the B2C sector [1]. At the same time, the research results show that, despite a noticeable decline in the average indicators of procurement activities of companies, in 2015 the volume of the Russian

e-commerce in B2B sector showed about 10% growth. The key factors of market growth include the increase in the share of purchases conducted in electronic form, including the largest corporate customers. Objective indicators of competitiveness of corporate purchases were also characterized by positive dynamics.

At present, Russia has more than six thousand electronic B2B trading platforms and six federal electronic B2G trading platforms. The number of companies participating in electronic trading is estimated at approximately 1.2 million. The market operates according to various estimates from 40 up to 45 thousand online stores. The above indicators for the Russian electronic market (B2C, B2B and B2G) reflect the positive economic effect of e-commerce, recognized by the world market due to a significant reduction in costs for conducting trading operations, solving problems associated with disadvantaged geographical position of entrepreneurs, and favorable conditions for establishing direct contractual relations between customers and suppliers, sellers and consumers. The opportunity to successfully compete in the market under such conditions is received including micro, small and medium enterprises (IHR), which contribute to the emergence of new participants in the market and, ultimately, ensure the growth of national GDP.

Therefore the development of electronic commerce, creates favorable conditions for the development of Russia's domestic production market, as well as to improve the competitive environment and the overall business climate in trade. At the same time, the volume of electronic commerce in Russia and the resulting degree of development of e-commerce technologies, especially in the B2B and B2G sectors, allow us to talk about the opportunities for Russia's full-fledged participation in the international economic exchange in the electronic market, which will equally stimulate production growth, as well as create conditions for increasing the state's revenues associated with the export-import activities of Russian business. Recognition of prospects development related to electronic commerce was reflected in a number of previously adopted strategic documents of the Russian Federation. The Long-Term Social and Economic Development Project of the Russian Federation for the period up to 2030 [3], prepared by the Ministry of Economic Development and approved by the Government of the Russian Federation, indicates that the growth of labor productivity in trade and some other sectors will be provided by the transition to new forms of production, such as Internet commerce and other types of electronic services.

In conclusion it should be noted that the strategic targets of the state are the development of special technical and organizational measures to support exporters in the B2B, B2G and B2C sectors; the formation of separate regulation in relation to the activities of electronic trading platforms, rights and obligations and ways to protect the legitimate interests of participants in electronic commerce, taxation, electronic settlements, electronic document management in the field of import and export customs procedures; and the development of international dialogue in this area to ensure parity conditions for trade and economic cooperation.

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CULTURAL BUSINESS MODELS WITH REFERENCE TO PRECISE CULTURAL GROUPS

Terekhova A.N.

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Abstract: *The article considers the importance of studying cultural differences while doing business abroad. In particular, countries such as Great Britain, India, China, Japan, Brazil, where international cooperation is well developed, are analysed.*

Key words: *cultural differences; business rules; business meetings; etiquette; traditions.*

Being an important part of our life today, globalization can provide one of the fastest ways of developing business outside the country of its origin. However, only respecting and adopting cultural differences and business specifics can lead to business's success globally [4]. Although it is impossible to know all the cultural subtleties of each country, you need to have a fairly

complete picture of the main cultural characteristics when doing business in a particular country.

Firstly, we should consider Brazil. In this country you always have to plan meetings well in advance. If you want to emphasize your respect to partners and their business, you should always conduct in-person meetings. Brazilian partners always use physical contact during conversation, with exchanging kisses on the cheek between female colleagues and handshakes with men [2].

In France it is incredibly important what you wear. Regardless of the day of the week you are doing business you must wear a quality business suit and try to look as good as possible. The French appreciate if you use their language. Try also to use French gestures and simple French words to show high respect to their national identity. You have to plan all meetings in advance but punctuality is treated quite casually in France so do not be surprised to find your French colleague arriving fairly late [2].

In the United Kingdom be always polite with the British. They often rely on unspoken messages to maintain politeness in business culture. Keep everything more formal even when you have a small talk with somebody during business meetings - sit up straight, avoid slang, and act deferentially to the British colleagues with whom you are doing business [2].

Germans are the most punctual people. They are hardworking, so by being on time you demonstrate that their time is valuable. All business meetings should be well-structured and straight to the point. It is also wise to remain serious and devoid of humor, as jokes are not appreciated in the German business culture [3].

When you are working with the group of the Japanese, never single out individuals, group unity is valued above anything else. As the Japanese hold business cards in very high regard, accept them with both hands, after reading place them in a business card holder. Do not forget that in Japan bowing is a typical way of greeting each other. As the Japanese take the subordination very seriously, the business meeting is often led by the senior member in the group, while younger members converse less out of respect [3].

Since the Chinese economy is one of the strongest in the world and a lot of business relations have been established between our countries we are obliged to consider the business culture of this country too. China is similar to Japan in many respects, for example, the Chinese hold business cards in very high regard as the Japanese. It is necessary to remember - never speak over someone or interrupt Chinese colleagues while someone is speaking since their business

culture calls for lengthy speeches on specific topics. In addition, never forget that the Chinese do not prefer physical contact during business meetings. You should also be prepared to participate in business dinners where speaking about business is a taboo. It is the time for getting acquainted with your counterparts closer. You can give a gift for the person you are conducting business with but remember the Chinese always decline it three times, so it is important to continue offering your present until it is finally taken [3].

We cannot omit India either. In this country do not be late and be prepared for any type of negotiation to take a long time to reach completion. When you are planning your schedule, pay attention to Indian religious holidays because there are many different religions in India and all holidays are significant. Since in the past India was a colony of Great Britain, there is a feature not to say everything directly. If they want to say "no", they will often skirt the response by promising to think about it or to try. During a business lunch or dinner be careful what you order. The cow is considered a sacred animal in India, so avoid eating any type of beef dish or wearing any type of leather. That can be perceived by Indian colleagues as disrespect [1].

To summarize, all countries have their own business cultural features and rules depending on their historical, religious and other aspects of development. There is no standard business etiquette around the world. Each market and region must be individually researched to be properly involved in social and professional communication. Being well-prepared before you travel to a location to conduct business will help improve your chances of being successful.

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ARTIFICIAL NEURAL NETWORKS FOR CREDIT SCORING: A REVIEW OF THE LITERATURE

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Abstract: *This paper reviews the literature on implementing artificial neural networks for credit scoring. Banks are interested in highly accurate model for prediction customer bankruptcy. Artificial neural networks are very adept at recognizing underlying patterns in nonlinear data. Here we investigate the works that illustrate evolution of artificial neural network use.*

Key words: *credit scoring, artificial neural network, multi-layer perceptron, ankruptcy prediction.*

The credit industry has experienced two decades of rapid growth with significant increases in installment credit, single-family mortgages, auto-financing, and credit card debt. Credit scoring models have been widely used by the financial industry during this time to improve cash flow and credit collections. With the growth in financial services there have been mounting losses from delinquent loans. This is the reason that banks are constantly striving to improve their scoring models. In turn, artificial neural networks have proven themselves as the best tool for recognizing underlying patterns in nonlinear data. Therefore, more and more researchers and practitioners seek to use various configurations of neural networks for credit scoring. The artificial neural networks can be defined as the complex systems for mapping the relationship between the independent and dependent variables. The aim of this review is to investigate the progress of the models based on artificial neural networks. This work tells about the development of the using of neural networks for credit scoring, beginning with the earliest and classical use of artificial neural networks and ending with a modern method of clustered SVM, based on neural networks.

The work of Piramuthu [4] is the main one in studies of the use of neural networks for credit scoring. In this work Piramuthu compares the performance of the both an ANN and a neurofuzzy system in a credit risk evaluation decision on the large bank credit card application database. This article concludes that, despite the sophistication of the neuro fuzzy system, the ANN is more accurate in credit approval decisions, with an 83.56% accuracy rate on a holdout sample. The ANN technique also generates a more accurate model when applied in a loan default setting, with 73.75% accuracy. However, when predicting bank

failure, the results were mixed when using data from 1 year prior to the year of failure, and the results were equal using data from 2 years before the year of failure.

Wu and Wang [5] suggest using classical artificial neural network to predict default of small business companies. This paper analyzes small business credit modelling with an ANN and compared the model's performance with traditional modelling techniques and the decisions of lenders. Using 182 credit applications from one bank and 19 input variables, they find that the neural networks have perfect accuracy on predicting good credit risks, but misclassified 57.1% of the bad credit risks. The misclassification of the bad credit risks may be due to the actual loan officers being too conservative in the original loan decision (as suggested in the article), or it can be that the loan officers are correct in their decision because of them having information that the ANN does not have available for use. Also, the ANN is much more accurate than the traditional modelling techniques.

Blanco et al. [1] and Mittal et al. [3] pass from using classical ANN to multi-layer perceptron (MLP) ANN and provide the first applications of ANNs to microfinance in emerging markets. Blanco et al. (2013) use MLP neural networks to create credit scoring models for the Peruvian microfinance industry. Mittal et al. [3] develop an MLP neural network model for bankers and financial institutions to use in determining whether to provide credit to micro enterprises in India. Unlike Blanco model, this model provides a new method for determining credit risk for potential customers with no past credit history.

Harris [2] suggests the most modern based on ANN method to date which called clustered SVM (support vector machines). Harris introduces clustered SVM and investigates the use of this method for credit model development using German and Barbados datasets. Clustered SVM is computationally inexpensive and shows high accuracy. Because credit applications datasets become very large, this method can take the main place in the development of credit scoring models in the near future.

Artificial neural networks well recognize underlying patterns in nonlinear data. Because of this, neural networks are being studied more and more as a method for credit scoring. This article focuses on the progress of the models based on artificial neural networks and investigates works, which can be regarded as landmarks on the road. Piramuthu [4] suggests using classical ANN for credit scoring and he also studies their effectiveness on real dataset for first time. Then Wu and Wang [5] indicate classical ANN to predict default of small

business companies. The transition from classical ANNs to MLP ANNs for credit scoring and their application to microfinance was proposed by Blanco et al. [1] and Mittal et al. [3]. And then Harris [2] introduces the most state-of-the-art based on ANN method which called clustered SVM. Considering how well neural networks have proved to be in other areas, in the near future neural networks will be increasingly used in credit scoring.

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CULTURE OF THE INFORMATION SOCIETY: CHARACTERISTICS AND TRENDS OF DEVELOPMENT

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Abstract: *The article describes the concept of "information society". Then, the article cites 8 characteristic features of the information culture. Finally, the main trends in the development of the information society are identified.*

Key words: *information society, information culture, trends of development.*

The information society is a society where most of workers are engaged in the production, storage, processing and sale of information [1]. The main feature of a new type of society is the special role of knowledge and technologies based on it, the dominance of information, the acceleration of technological progress, the development of the service sector, and the improvement of the life quality.

Western scientists distinguish the following characteristic features of the information society [2].

First of all, the information society is characterized by its network nature. In an information society, social structures are not subject to hierarchical principles, but exist as a set of nodes located at different levels of government and performing the functions of the center.

The next feature includes two important terms – "demassification" and "personalization". Demassification is the disappearance of standardized patterns of the world and orientation of a person to psychological, social and ethical goals. Personalization is the orientation of culture and society to each person, while losing the traits of a "massed individual".

Next, there is a symbolic character of activity in the information society. The modern person is more interested in the sign-value that is significant in society, rather than the use-value of things. Consumption is released from its meaning as a "process of satisfying needs", on the contrary, the process of production and consumption actively forms needs.

Another feature is formation of "posteconomic" values. In the information society, a new value system is formed, oriented on psychological, social and ethical goals. Material prosperity loses its significance, and problems such as the need for a combination of security and freedom, justice and responsibility come to the forefront.

Also, it should be noted that information culture is a "blip-culture". Blip culture is based on the "blips" of information: announcements, commands, scraps of news that cannot be classified. Consumers of information do not have the opportunity to borrow a ready-made model of reality, but must construct it themselves. Thus, a person is able to perceive huge amounts of information.

Then, information culture is connected with phenomena called "Future shock". "Future shock" is physical and psychological suffering, arising from overloads that physically affect the adaptive systems of the human body, and psychologically, the systems responsible for making decisions.

It should be also emphasized that information society is a product of political culture. Information society is the result of decisions, policies and programs, and not of natural balance. The "programmable" society is distinguished by the increased role of political power.

Finally, the culture of the information society is characterized by virtualization of life. Information broadcasted in on-line mode has a special effect of reality, the effect of "presence" makes it possible to create the illusion

of truth of the fact, as a result, creating a virtual reality.

The following main trends in the development of information society are singled out [3].

The first trend is the emergence of a new historical type of civil property - intellectual property, which, unlike material objects, is not inherently alienated from its creator or from its owner.

The next trend is the restructuring of labor motivation. The content of labor, the possibility of self-realization, the prospects for professional and social growth become the determining incentives for the labor behavior.

Another trend is the change in the social differentiation of the information society itself, its division not into classes, but into poorly differentiated information communities.

Finally, there is the wide participation of the population in the processes of preparation and adoption of managerial decisions, as well as in control over their implementation.

The culture of the information society, in comparison with the culture of the industrial society, has a number of features – a network principle of functioning, a virtual character, a short-term, "blip" form of information delivery. Within the boundaries of this culture changes the meaning and role of the individual greatly. Changes in society are both positive and negative. However, humanity will soon evolve and will be completely rebuilt under new conditions.

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DIGITALE WIRTSHAFT IN GEGENWÄRTIGEM DEMOGRAFISCHEN TENDENZEN

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Zusammenfassung: *Im diesem Artikel „Digitale Wirtshaft In Gegenwärtigem Demografischen Tendenzen“ handelt es sich um Wichtigkeit der digitalen Wirtschaft für gegenwärtige Gesellschaft. Die digitale Wirtschaft reduziert negative Auswirkungen von Alterung der Bevölkerung.*

Schlüsselwörter: *Digitale Wirtschaft; Demografie; Wirtschaftswachstum; Demografische Entwicklung; Kapitalmärkte; Altersvorsorge.*

Das Thema der Bevölkerungsalterung geht jeden an. Digitale Wirtschaft ist beauftragt die Wirtschaft zu entwickeln und das heißt, dass digitale Wirtschaft den Menschen in erster Linie dienen soll. Digitale Wirtschaft das sind: neue Medizinen, neue medizinische Technologien und alles zusammen beeinflusst die Demografie.

Es liegt daran, dass zwischen der demografischen Entwicklung und der Wirtschaftsentwicklung ein enger Zusammenhang besteht. In den vergangenen Jahrzehnten profitierte die globale Wirtschaft von einer Vielzahl junger Menschen, die auf den Arbeitsmarkt strömten. Jetzt kehrt sich die Entwicklung - mit entsprechenden Folgen für das Wachstum. Die Weltbevölkerung und das BIP beeinflussen einander in der Regel positiv. Zwischen 1998 und 2007 das durchschnittliche Wirtschaftswachstum in der Welt laut dem IWF bei 4,1 Prozent lag. Von dieser Dynamik sind wir derzeit ein gutes Stück entfernt. In diesem Jahr sollen es 3,4 bis 3,5 Prozent werden. Der Grund ist in der demografischen Entwicklung zu sehen. Um den Zusammenhang zwischen Bevölkerungsstruktur und der Wirtschaftsentwicklung zu verdeutlichen, lohnt sich ein Blick auf Japan, denn in keinem Land der Welt ist die Bevölkerung im Durchschnitt älter [3].

Es liegt daran, dass Bevölkerungswachstum eine Rückseite gibt. Wir betrachten die Situation am Japans Beispiel wie die Bevölkerung das Wachstum bremst. Japan ist das Land mit ältesten Bevölkerung in der Welt. Laut dem Datenanbieter Statista lag das Durchschnittsalter 2017 bei 47,3 Jahren und bis 2040 soll es auf über 51,3 Jahre steigen [2].

Japan war auch mal ein junges und geburtenstarkes Land. Laut einem Bericht der 'Zeit' setzt zwischen 1947 und 1949 ein Babyboom ein. Damals wurden acht Millionen Menschen geboren. Und tatsächlich boomte die Wirtschaft des Landes ausgehend davon bis etwa 1990. Seit Mitte der 1990er Jahre aber hat das Land massive wirtschaftliche Probleme.

Wenn junge Menschen erwerbstätig werden und Geld verdienen, können sie mehr Geld ausgeben. Kommen viele junge Menschen gleichzeitig ins erwerbsfähige Alter – wie zum Beispiel die Baby-Boom-Generation, - dann führt der kräftige Anstieg der Nachfrage zu einer Beschleunigung des Trendwachstums. Die Aussichten sind noch schlimmer: Laut einem Beitrag in der 'Zeit' leben heute rund 125 Millionen Menschen in Japan und im Jahre 2060 sollen es 40 Millionen weniger sein. Auch wenn die Weltbevölkerung insgesamt noch wächst, so stellt sich doch die Frage, was passiert, wenn in den Industriestaaten die Bevölkerung altert. Denn genau das ist in den kommenden Jahren der Fall. Von Japan bis hin zu den USA, Großbritannien, Deutschland und Italien – die Baby-Boom-Generation geht in Rente [1].

Es gibt auch Vorteile. Zum Beispiel, die Alterung der Bevölkerung erhöht die Kapitalintensität unserer Wirtschaft und damit auch die Arbeitsproduktivität. Es liegt daran, dass es eine direkte Verbindung zwischen der Alterung und der digitalen Wirtschaft gibt. Das Kapital oder Computer, hilft also einer alternden Wirtschaft, den Mangel an Erwerbstätigen auszugleichen. Diese Entwicklung wird entscheidend durch die Rentenreformen modifiziert. Die privatwirtschaftliche Altersvorsorge wird allein wegen ihres Volumens langsam die Kapitalmärkte dominieren. Hier liegt die zunehmende makroökonomische Bedeutung der Kapitalmärkte.

Zweitens, sind die Kapitalmärkte das notwendige Instrument, um die kleine Kindergeneration von den Lasten der großen Babyboom-Generation zu befreien. Nur in dem Maße, in dem die Mitglieder der Babyboom-Generation selbst ihre Altersvorsorge aufbauen, kann die nächste Generation entlastet werden. Ohne Kapitalmärkte kann es keine nachhaltige Altersvorsorge in einer kinderarmen Gesellschaft geben. Schließlich wird die Alterung der internationalen Arbeitsteilung vor allem durch die Kapitalmärkte verändern [3].

Der Dreiklang der Wachstumskomponenten sind Arbeit, Produktivität und Kapital. Dieser Dreiklang findet seinen Widerklang in dem Dreiklang von Politikmaßnahmen: Erhöhung der Erwerbstätigkeit, Förderung der Aus- und Weiterbildung sowie Offenheit und globale Einbettung. Dies sind politische Herausforderungen, aber auch große Chancen für ein alterndes Land.

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SECURITE INFORMATIQUE EN FRANCE

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Résumé: *L'article décrit les problèmes de sécurité de l'information en France, ainsi que les moyens de les résoudre, y compris l'éducation informatique de la population. L'auteur donne les exemples des arnaques qui stimulent la cybercriminalité. Il conclut que l'utilisateur soi-même la provoque mais il est capable de se défendre.*

Mots clés : *sécurité informatique, ressources informatiques, entreprise.*

Ce n'est pas un secret qu' aujourd'hui l'Internet, le prodige de notre siècle, est partout. Il sert à tous: aux savants, aux hommes politiques, aux businessmans, aux chef des enterprises. Il est devenu une partie intégrante de notre vie. On l'utilise pour les buts tout à fait différants. C'est une source inépuisable de n'importe quelle information. Le rôle du marché numérique devient de plus en plus grand et important.

Pourtant il ne faut pas oublier ses inconvénients et ses dangers. Aujourd'hui le nombre des gens qui utilisent Internet dans leurs buts criminels grandit énormément. Ainsi le problème de la securité informatique est à l'ordre du jour dans tous les pays du monde. La France, elle est en seconde position derrière les États-Unis pour les vols de données personnelles en ligne. Elle fait des ravages toujours plus nombreux. Par exemple, en 2017, plus de 19 millions de Francais ont subi les conséquences d'actes de cybercriminalité.

Les pertes financières en France atteignent 6,1 milliards d'euros au cours des 12 derniers mois, et chaque victime a perdu en moyenne 16 heures pour réparer les dommages causés.

Malheureusement, il faut constater que le vecteur d'infection reste l'utilisateur lui-même. Plus de 70% des arnaques sont véhiculées par l'utilisateur, le plus souvent de manière involontaire : on télécharge souvent soi-même un logiciel malveillant. 45% des personnes, victimes de cyber-attaques, avouent

avoir cliqué sur un lien de phishing, ou avoir répondu à un faux email [2]. De même, le réseau Wi-Fi domestique de deux victimes sur cinq a été piraté, tandis que plus d'un tiers ont été victimes d'escroquerie au support technique. Enfin, pour 34% d'entre eux, c'est l'adresse email ou le profil Facebook/Twitter qui a été piraté.

Les arnaques sur les réseaux sociaux ont également fortement augmenté durant l'année écoulée.

La liste des actes de cybercriminalite étonne par ses diversités et l'ampleur :

- fraude par carte bancaire;
- détection et résolution d'activités inhabituelles sur le réseau Wi-Fi domestique;
- vols d'informations de paiement sur le téléphone portable;
- informations personnelles compromises;
- clic sur un lien de phishing, ou divulgation d'informations personnelles ou financières en réponse à un faux e-mail;
- escroquerie au support technique et beaucoup d'autres.

Comme nous le voyons, les malfaiteurs sont assez experimentés en leurs activités criminelles.

Afin de lutter contre les cyberattaques en France on a créé la plateforme gouvernementale sur tout le territoire. Son objectif principal est d'aider les victimes d'incidents informatiques, qui ne disposent pas de compétences et/ou de ressources en sécurité numérique. Le deuxième objectif consiste à recueillir des données sur le « risque numérique ». On a crée 800 postes de gendarmes et policiers affectés à ces enjeux [3]. La France soutient le renforcement budgétaire et technologique de l'agence européenne ENISA, basée en Grèce. On a également annoncé la mise en place des programmes de formation et de sensibilisation aux questions de cybersécurité dans les écoles. Une campagne nationale d'information est aussi à venir à destination du grand public.

Pour mieux se protéger à l'ere numerique L'Association Internationale de Lutte contre la Cybercriminalité a été créée en février 2006 [1]. C'est la première association française au niveau international exclusivement dédiée au droit pénal de l'informatique, à la sécurisation de cyberespace et aux échanges électroniques. C'est un lieu d'information et de formation. C'est également un organisme de recherche interdisciplinaire qui regroupe des experts et des professionnels. L'objectif principal de l'association est de sensibiliser les secteurs public et privé à la « sécurité de cyberespace ».

On élabore des conseils pratiques visant à améliorer la sécurité des internautes français.

On invite également l'internaute à rester vigilant concernant le phishing, et réfléchir deux fois avant d'ouvrir des messages ou des pièces jointes. On invite évidemment les internautes à protéger leurs terminaux avec un logiciel de sécurité «robuste et multi-plateformes».

En tenant compte de l'importance de la securite numerique, tous les pays du monde doivent faire tout leur possible afin de résoudre ce problème. Aujourd'hui il y a donc beaucoup de choses à faire dans ce domaine.

La securite informatique c'est l'affaire de tout le monde.

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DIGITAL ECONOMY AS A FACTOR OF INCREASING RUSSIAN COMPETITIVENESS

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Abstract: *The article describes some aspects of the digital economy, considers the development trends of this type of economy in Russia and how it influences on increasing Russian competitiveness. Moreover, the solution of improvement the quality of citizen's life and ensuring the global competitiveness is examined.*

Key words: *digital economy; Russian competitiveness; economy development; communication technologies.*

The digital economy is a system of economic, social and cultural relations based on the use of digital information and communication technologies. The number of Internet users in such an economy is growing, information and computer technologies are dissolving in our lives, there is a digital revolution.

Today it is becoming increasingly important drivers of economic growth and plays a significant role in the economic development of the countries. The digital economy increases productivity, forms a lot of new markets and industries, as well as promotes to achieve of sustainable growth. It is rapidly developing on a global scale and is the driving force behind innovation, competitiveness and economic growth in the world. The digitalization level of society and business is important at this stage in the development of the digital economy [4].

An important component in the formation of the information society and the digital economy in Russia is the use of the capabilities of modern information and communication technologies to create information and new knowledge, goods and services and exchange them effectively. The leadership of our state understands that the future of e-commerce and the digital economy of the Russian Federation have to receive the financial and management support necessary for rapid development. This type of economy has been developed in our country before, but today the authorities intend to accelerate this process to reduce the gap with other states [2].

The basic strategy of information component development of an economic impact is adopted in Russia as the "Program for the development of the digital economy in The Russian Federation until 2035". The program defines the main objectives. The following development directions of the digital economy have been established: normative regulation, personnel and education, the formation of research competences and technical facilities, information infrastructure and information security [3].

Management of resources will be carried out using integrated digital platforms. They would allow to unite all market participants in the information environment, reducing transaction costs and changing the division of labor system. It is planned to create "smart cities", increase the number of specialists in the field of information security, increase the financial literacy of the population, the introduction of digital technologies in the health sector. It is assumed that all settlements will have access to the Internet, and in cities the coverage of the network of 5G will be applied. This will speed up people's work, making modern processes simple and easy.

The main goal of all these normative legal acts is to improve the quality of citizens' life and ensure the competitiveness of the state and national security. The main trend in the development of information at the present stage is to improve computer technology in combination with achievements in the field of

artificial intelligence and communication media. The using of information technology leads to increased efficiency in all spheres of public life, including economic, social, public administration and national security spheres. For example, in the economy there is an increase in productivity and flexible response to market demands. Moreover, if Russia develops the information economy, it will be able to increase its competitiveness in the world significantly. The information technology industry will be one of the largest and fastest growing today. The innovative products constitute an important part of the Russian exports. The development of the information economy is a reliable way to ensure the Russian global competitiveness [1].

To sum up, the digital economy is the greatest importance for the whole world in the context of developing globalization. Besides, this type of economy has been actively developed in our country recently. The digital economy makes changes in all spheres of public life. And the last, but not least, this economy is able to affect the national competitiveness and rapidly increase it.

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PROBLEMS OF INTERACTION BETWEEN CULTURES

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Abstract: *This article is devoted to the search for ways to expand the interconnection of different countries, peoples and their cultures without losing their cultural diversity. The authors emphasize that in connection with the processes of economic globalization, the process of mutual adaptation of cultures has become more widespread. However, the expansion of interaction between cultures and peoples makes the issue of cultural identity and cultural differences especially urgent.*

Key words: *cultures, globalization, adaptation, interaction, integration, intercultural.*

At the present stage of the development of society, it is becoming increasingly clear that humanity is developing along the path of expanding the interconnection and interdependence of various countries, peoples and their cultures. This process covered various spheres of public life in all countries of the world. Expanding the interaction of cultures and peoples makes the issue of cultural identity and cultural differences especially urgent. The cultural diversity of modern humanity is increasing, and its constituent peoples are finding more and more means to preserve and develop their integrity and cultural appearance. This tendency to preserve cultural identity confirms the general pattern that the humanity, becoming more and more interconnected and unified, does not lose its cultural diversity [1].

In the context of these tendencies of social development, it becomes extremely important to be able to determine the cultural characteristics of peoples in order to understand each other and achieve mutual recognition. Intercultural interaction is the contact of two or more cultural traditions (canons, styles), in the course and as a result of which counterparties have a significant mutual influence on each other. In accordance with the nature of this influence, the type of intercultural interaction is determined.

In accordance with the theoretical developments available in modern sociology of culture and anthropology, the following types of intercultural interaction can be distinguished: active exchange (dialogue); integration (synthesis); mutual isolation; complementarity; permanent conflict; concurrency in development.

Integration of cultures, in turn, involves three options, differing in the degree of equality of counterparties: convergence, incorporation and assimilation.

The process of interaction of cultures, leading to their unification, causes in some nations the desire for cultural self-affirmation and the desire to preserve their own cultural values. Interaction is carried out at different levels and different groups of carriers of the corresponding cultures.

Subjects of intercultural interaction can be conditionally divided into three groups: 1) figures of science and culture interacting with the goal of learning another's culture and acquainting oneself with one's own; 2) politicians who regard intercultural ties as one of the sides of social or political problems, including international ones, or even as a means of solving them; 3) the population encountering representatives of other cultures at the household level.

The allocation of levels of intercultural interaction depending on its subjects helps to avoid an abstract formulation of the question and to more specifically comprehend the goals of interaction that differ among different groups; means used to achieve them; trends in each level of interaction and their prospects. It is possible to separate the problems of intercultural interaction proper from the social, economic and political problems hidden behind the "clash of civilizations" or the dialogue of cultures. The difference in worldviews is one of the causes of disagreements and conflicts in intercultural communication [2].

Thanks to the globalization of the economy, the process of mutual adaptation of cultures has become more widespread. Undoubtedly, on the one hand, this contributes to a more even development of the economy of the whole world. The whole world is connected by one economic chain; the deterioration of the situation in one country will necessarily affect other countries. Every participant of the world economy is interested in the welfare of the whole world.

More and more theoretical and applied research is being devoted to the problems of intercultural interaction, both in Russia and abroad. Becoming participants of any kind of intercultural contacts, people interact with representatives of other cultures, often significantly different from each other. Differences in languages, national cuisine, clothes, norms of social behavior, attitude to the work performed often make these contacts difficult and even impossible. However, these are only particular problems of intercultural contacts. The main reasons for their failure lie beyond obvious differences. They are in differences in attitude, that is, a different attitude to the world and to other people. Hence, the conclusion suggests that effective intercultural communication cannot arise by itself; it needs to be purposefully studied.

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ENGINEERING OF INTELLIGENT PERSONAL ASSISTANT FOR PRODUCT RANGE: A REVIEW OF THE LITERATURE

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***Abstract**: Intelligent Personal Assistant or just bots are used in a variety of scientific and business activities every day. With the rise of machine learning popularity chatbots have been greatly enriched with new methods and ideas. Though the task of building such bot is not an easy one, chatbots can greatly contribute to business and academia if applied properly.*

***Key words**: chatbot, neural, networks, recurrent, reinforcement, machine, learning, analytics.*

Chatbots have been present in our life for over 30 decades. Since the dawn of the Internet idea about creating intelligent assistant or simple partner for conversation has been inhabiting minds of software engineers. Due to limitations of hardware early bots were created by programming solid determined logic and field of options. Until last decade, chatbots were limited to the set of answers that programmers embedded into their database. Despite the fact that some bots had been using some simple algorithms for learning these bots were not able to understand even a piece of the information the use. However, spreading of machine learning greatly contributed to creation of advanced chatbots.

Bots' architecture consists of several components: natural language processing module, neural networks of some type, reinforcement learning procedures, results assessment module, analytics. The first technique in engineering of intelligent chatbots is natural language processing methods, which commonly include stemming and lemmatization, weighting and vectorization of words or some groups of words. Ni, Saunders, Szedmak, Niranjan [9] argued that using new approach – Max-margin structure – for developing natural language processing applications can greatly boost current models by enhancing prediction of words probabilities and their distribution. In the work "The application of structured learning in natural language processing" they emphasize that addition of this new method to existing methodology can create better results because of synergy. Implemented strategy can be used to preliminary data analytics. Research of Furbach, Glöckner, Pelzer [2] can be used effectively with structured learning, as automated reasoning can be based on these factors.

The main stage of developing chabot is creating its' architecture. One of the most advanced approaches today is creating complex models that consist of

several neural networks models. In their recent work Malinowski, Rohrbach, Fritz [8] propose the effective structure for creating question answering algorithm. Their collection of Long short term memory networks achieved significant results in forming answers for very specific questions. This model combines three main stages: image recognition, question recognition, generation of the answer based on LSTM data model.

Though this approach can be computationally heavy, recurrent neural networks are the most advanced algorithm for question – answer systems. Li, Renqiang Min, Ge, Kadav [6] suggest that modifying standard recurrent neural network by deploying context-dependent word-level attention for more accurate statement representations and question-guided sentence level attention can lead to better context modeling. Context awareness is the crucial aspect of creating chatbot experience. Standard language processing techniques can hardly catch context, but approach explained in "A Context-aware Attention Network for Interactive Question Answering" adds essential component to the model.

In order to outperform standard solutions for chatbot, context modeling is used. In addition to context, analysis of semantics and emotional expression should be included in the model. O'Carroll Bantum, Elhadad, Owen, Zhang, Golant, Buzaglo, Stephen, Giese-Davis [10] suggest that information about emotional expression in certain texts or messages can serve as a good model factor. In their work [10] they discovered that texts classification based on emotional expressions could give a lot insight into data.

Semantics also plays significant role in decoding text data. Dr. Emdad Khan proposes new generalization algorithms in order to enhance semantics for certain models. In the work he presents a new algorithm for discovering semantics in the text data. Carbonne and Jacob [1] state that profiling users using machine learning algorithm can greatly contribute to semantics observation in raw data.

In order to sustain bot's learning process throughout its early operational steps some reinforcement learning methods could be implemented. For example, Lee, Oh, Yang, Park [5] describe common approaches to reinforcement learning that can be integrated into various types of systems. Specifically, they used Q-Learning for recommender systems' reinforcement learning.

Reinforcement learning can be effectively used by allowing certain users to participate in this process. Such discriminative model was developed by Izhak-Ratzin, Park, van der Schaar [3]. Implementation of discriminative model

could enable developers to collect best feedback from selected users thus improving not only reinforcement procedures, but also overall quality.

Pereira [4] explores the most useful ways of building communication interface by creating a set of special questions for users. Analytics collected by bot can be used to tune bot to certain customer types. In order to perform this task effectively Loh and Li [7] develop special analytics system that can track users' behavior and use it for system's improvement.

To sum up, creating chatbot involves not only standard natural language processing algorithms, but also advanced neural networks, context and emotion recognition. While creation of simple chatbot could be a challenging task itself, engineering a state-of-the-art personal assistant is an extremely complex and difficult task. In order to achieve innovation a lot of natural language specifics should be taken into consideration, for example, semantics and emotional expression.

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LEGAL PROTECTION OF CULTURAL HERITAGE: INTERNATIONAL AND RUSSIAN PRACTICE

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Abstract: *The article describes some aspects of legal cultural heritage protection. It is aimed at comparing of efficient legal instruments in national law that contributes to generalization of experience and can help to improve already existing means of legal regulation and also to create new ones.*

Key words*: protection of cultural heritage; cultural sights, historical heritage.*

In the modern world more than 50 significant sites, which are protected by the UNESCO, are threatened [1]. It means, that the foreign law cannot cope with the security of culture. This problem appeared in 1970-th, when the globalization touched the whole world, and today we see that historical and cultural heritages transform into accommodation ladders and offices or tower buildings hide the beauty of cultural subjects. Undoubtedly, the countries try to solve this issue through the international cooperation and own legal mechanisms.

According to the German Main Law, the issue of protection cultural heritage is under the jurisdiction of Federation and regional lands. Also there are federal and local laws in the area of values preserving and protection.

The system of protection and preserving of cultural heritage in Germany is unique [6]. The Supreme regional land body is the Minister of Culture of the land. The subordinated bodies of the monuments protection, that right of supervision for construction in the cities and communities is transferred and that

is a community-based governance, and in the areas of regional land – the district committees.

France legislation includes the codified laws, which regulate nature and culture protection. One of them is a French law about historical monuments which establishes the amount of the control. The difference of French regulation is that owners can get tax remissions that give people the opportunity for visiting some sites [2]. This mechanism stimulates citizens and tourists to gain knowledge, and owners try to keep in order cultural objects.

The same practice has already been developed in the USA and this country uses the approach of the decentralization [5]. For example, states keep accounts on objects of sites, but the gubernator appoints a designated person, who will realize the program of saving cultural and historical heritage.

Russia is also aimed to save the culture. The Article 44 of Constitution of the Russian Federation establishes that everyone has the right to participate in cultural life and uses cultural establishments to an access of cultural values. However, this Supreme legal act enshrines the obligation of everyone to care for the preservation of cultural and historical heritage and protect monuments of history and culture.

The basic source of regulation in cultural protection is the Federal Law No. 73. It is aimed to govern relations in the sphere of preservation, use, popularization and government protection of historical and cultural monuments.

The Ministry of Culture of the Russian Federation has a wide range of issues and it is a higher authority for regional organization about cultural issues. A very important organization in this sphere is the Legacy Institute, that was established under the Ministry of Culture in pursuance of the UNESCO Convention of 1972, exactly the protection of world cultural and national heritage is located in the territory of the Russian Federation, as well as to monitor the condition of cultural heritage that was not included in the UNESCO list.

Moreover, the work of international organizations helps countries to conduct the protection of cultural heritage, but it is not enough. In these conditions it seems necessary to introduce the following:

1) Institute Tax Advantages for carrying out activities that are aimed at the protection of cultural heritage objects

2) Target transfer of a part of excises, for example, tobacco products, into the sphere of cultural heritage protection [4].

3) It is necessary to tighten control over the exploitation of cultural heritage objects because cultural monuments are often used for other purposes.

4) To popularize among the population the protection of cultural heritage, to provide access for each citizen to them with the aim of raising the cultural and legal consciousness level.

Thus, it seems that, the suggested mechanisms for the protection of cultural monuments would help not only to preserve, but also to multiply the cultural heritage of our country.

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CHARACTERISTICS OF THE DIGITAL ECONOMY

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Abstract: *In this article, the author shows what the digital economy is, what factors influence its development, how the digital economy affects the development of the Russian economy and the economic security of the Russian Federation.*

Key words: *digital economy, Russian economy, markets and sectors of the economy, economic security.*

The digital economy is a type of commercial activity that deals with the production and sale of electronic goods and services. The digital economy is represented by three levels: first, markets and sectors of the economy, where specific subjects interact, for instance, cooperation between suppliers and consumers of goods, works and services; second, platforms and technologies, where competences are being developed for the growth of markets and industries; third, the environment that creates conditions for the development of platforms and technologies, and effective interaction between market participants and the economic sector, covering regulatory control, information infrastructure, personnel and information security [3]. These three levels in their close interaction affect the lives of citizens and society as a whole.

Due to the fact that effective development of markets and industries in the digital economy is possible only in the presence of developed platforms and technologies, institutional and infrastructural environments, our country is focused on the two lower levels of the digital economy – the basic directions, defining the goals and objectives of development: the key institutions that create conditions for the development of the digital economy, such as regulatory control, personnel and education, formation of research competencies and technological reserves; and the basic infrastructure elements of the digital economy, namely, information infrastructure, information and economic security.

Russia is among the world's leading countries in the dynamics of the spread of broadband Internet and wireless networks. From 2010 to 2016, the share of households with access to the Internet increased to 74.8%. The average speed of the Internet in Russia in 2016 increased by 29% – this is the level of France and Italy [2]. By the early 2017, the Russian market of commercial data storage and processing centers had grown to 14.5 billion rubles. Moreover, due to the high level of competence of our specialists in the IT field, domestic companies offer unique software solutions, which are used in a variety of areas, including the creation of the so-called smart cities.

At the same time it should be noted that, in each of the developing areas of the key institutions digital environment, the support is taken both for the existing conditions for the emergence of breakthrough and promising integrated digital platforms and technologies, and the creation of conditions for the emergence of new platforms and technologies that will ensure the development

of the economy, its security from external and internal factors and the welfare of the population. And as it is mentioned in the project of development of digital economy in Russia [1], the main end-to-end digital technologies are represented by large data; neurotechnology and artificial intelligence; distributed registry systems; quantum technologies; new production technologies; industrial Internet; components of robotics and sensorics; wireless communication technologies; and technology of virtual and augmented realities.

It is also assumed at the state level, that the introduction of a digital policy requires close cooperation of the government of the Russian Federation with business and science, since the main result of its implementation should be the creation of at least 10 leading companies at the national level – high-tech enterprises developing advanced technologies and management of digital platforms that operate on the world market and form around themselves a system of 'startups', research groups and industrial enterprises that support the development of the digital economy.

Thus, the digital economy is developing with a great speed all over the world. It is the source of innovation, competitiveness and huge potential of economic development as a whole. Furthermore, the formation of the digital economy is a matter of national security and independence. The digital economy is not a separate branch, but a way of life, a new basis for the development of the economy, business, and social sphere. The development of the digital economy will accelerate scientific and technological progress and increase the welfare of the population.

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LA ERA DE LA ECONOMÍA DIGITAL: CRIPTOMONEDA COMO UNO DE LOS MÉTODOS DE SOLUCIÓN A LAS PROBLEMAS ECONÓMICOS EN LOS PAÍSES DE AMÉRICA LATINA

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Abstract: *The article considers a new trend of digitalization of the economy and its impact on the economic processes in the world. Also it considers crypto-currency as a means of solving economic problems using the example of El Petro's crypto-currency and the experience of the Venezuelan economy.*

Key words: *digital economy; crypto-currencies; economic problems of Latin America; digitalization; the El Petro currency.*

La economía digital como tendencia de la economía mundial constituye un sistema de relaciones económicas, sociales y culturales basado en el uso de tecnologías digitales. La idea de la transformación digital abarca todo el mundo ya que la economía digital tiene bastantes ventajas. En particular, permite reducir el costo de los pagos y abre nuevas fuentes de ingresos. El desarrollo y la implementación de la economía digital han favorecido la creación de monedas electrónicas. A su vez, la creación e implementación de la moneda criptográfica resultó un paso lógico en la evolución del sistema económico mundial [2].

Se sabe que la economía de los países de América Latina está sujeta a la influencia de las tendencias económicas globales. Es obvio que tal dependencia de las fluctuaciones del sistema económico mundial da a los países latinoamericanos un impulso y les hace buscar alternativas formas de desarrollo. Con todo dicho se puede destacar la popularidad de las criptomonedas en la región de América Latina. Procede señalar que el progreso sustancial en términos de la digitalización de la economía se ha logrado en tales países de América Latina como Brasil, México, Argentina y Venezuela. Venezuela fue el primer país en introducir su propia criptomoneda nacional en la circulación financiera, respaldada por recursos estatales, y recursos naturales. La presuposición para la introducción de la criptomoneda nacional de Venezuela fue una profunda crisis social y económica asociada a la fuerte caída en los precios del petróleo. A principios de 2017 el presidente venezolano anunció su intención de crear una criptomoneda para que salvara la situación económica en el país [4].

En febrero de 2018 en Venezuela fue abierta la venta de la criptomoneda El Petro. Cabe mencionar que El Petro es la única moneda criptográfica respaldada por el activo real. Para ese propósito por orden del Presidente de Venezuela, Nicolás Maduro, se le dio 5 mil millones de barriles de petróleo

crudo de un yacimiento de Ayacucho [5]. Según el presidente, con El Petro se puede adquirir los bienes y servicios, pagar los impuestos y facturas [3].

El Petro se convirtió en la primera criptomoneda nacional y, por lo tanto, atrajo una atención especial. En febrero de 2018, se registraron alrededor de 200 mil ofertas con la intención de comprar la criptomoneda venezolana. Los iniciadores más activos de la compra fueron registrados en tales países como Colombia, Brasil, Japón, China, Palestina, España y otros. Según CNN, en marzo de 2018, la cantidad se quintuplicó y alcanzó los 5 mil millones de dólares [6].

Durante todo el periodo Nicolás Maduro promovió con éxito la moneda cifrada. Además, hace poco han anunciado la unión de la criptomoneda Petro Gold a El Petro con respaldo en oro [1].

La economía digital junto con criptomonedas pueden ser una solución a muchos problemas causados por la inflación. Numerosos estudios demuestran que el factor decisivo para la implementación de criptomoneda en el sistema financiero de un u otro país latinoamericano, cuya importancia para la economía de esta región no puede ser sobreestimada, es la posibilidad de anular las sanciones extranjeras por terceros países. Muchos científicos y economistas coinciden en el hecho de que la criptomoneda como el medio de pago puede ser utilizado para diversos objetivos que lo hace aún más atractivo en términos de fortalecimiento de la economía de América Latina.

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LOCKCHAIN PLATFORMS IN THE CONTEXT OF NATIONAL MENTALITY

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Abstract: *The article describes the mechanism of Blockchain functioning as well as some advantages of this virtual platform. The authors give the examples of Blockchain platforms usage in such countries as the USA, the UAE and the Russian Federation in the context of national mentality.*

Key words: *Blockchain, virtual platform, national mentality.*

Blockchain is the world's leading software platform for digital assets that underpins the Bitcoin virtual currency. Blockchains are a combination of information technology, cryptography and governance principles that enable transactions to occur without the need for a third party to establish trust between transacting parties. It is also known as a digitized, decentralized, public ledger of all cryptocurrency transactions [4].

Let us have a look at the mechanism of how this system works. Constantly growing as "completed" blocks (the most recent transactions), recorded and added to it in a chronological order, it allows market participants to keep a track of digital currency transactions without central recordkeeping. Each node (a computer connected to the network) gets a copy of the Blockchain, which is downloaded automatically.

The following are just some of the benefits of the Blockchain:

1. Transparency.

The Blockchain technology is usually an open source, which means other users have an opportunity to modify it. What is more, if there are countless viewers on the network, someone is probably going to see that logged data have been altered. This makes Blockchain a particularly secure technology.

2. Reduced transaction costs.

As noted above, Blockchain allows peer-to-peer and business-to-business transactions to be completed without the need for a third party, which is often a

bank. Since there is no middleman involvement tied to Blockchain transactions, it can actually reduce costs to the user or businesses over time.

3. Decentralization.

Blockchain is a lack of a central data hub. Instead of running a massive data center and verifying transactions through that hub, Blockchain actually allows individual transactions to have their own proof of validity and the authorization to enforce those constraints. So, if this information fell into unwanted hands (e.g., a cyber-criminal), only a small amount of data, and not the entire network, would be compromised.

4. User-controlled networks.

Cryptocurrency investors are tend to be really encouraged by the control aspect of Blockchain. Rather than having a third party run the show, users and developers are the ones who get to call the shots [5].

We assume that the goals of Blockchain platforms implementation were provoked, first of all, by the historical development of the country, a set of mental, emotional, cultural features, value orientations and attitudes of its people and the prevailing method of production. Therefore, our hypothesis is that there is a relationship between the creation of Blockchain platforms and the current mentality of the country. These assumptions will be illustrated with actual examples.

We will start with the USA as a multi-user of the digital economy. IBM Blockchain Platform is the technology showing how businesses work together to transform themselves, their industries and even the world. The USA launched hundreds of client projects and dozens of active networks producing value today. It facilitates cross-border transactions: you can see all transactions in one form, needed details to particular transaction too and all past transactions. It provides transparency and better flow, makes money transactions easier, speeds time, needed for a money transaction and so on.

There are some examples of its usage. Walmart's food safety solution uses IBM Blockchain Platform in the USA. It allows different segments of the food system to capture the information about the product, which helps to have safer, more affordable and sustainable food system. In simple terms, all stakeholders work together for better food system.

We move on to the country, which solves the problem of forbearance to other nations, tolerance and tourism with the help of Blockchain platforms for travel. Here we look at the Middle East, at the United Arab Emirates. Dubai wants to democratize tourism, creating a virtual business market for the tourist

industry in two years, with an additional distribution channel for hotels, using blockchain technology. According to "Arabian Business", Dubai, the largest and most populous city in the United Arab Emirates, hopes to provide tourists from all over the world with a variety of travel options with transparent prices, which will allow tourists to control individual travel plans. The democratization of Dubai's tourism industry with the block-technology's help serves a number of purposes. The aims are to increase the amount of tourists and to enable small companies to compete with the giants of the tourist industry [3].

As a result, we want to compare the previous countries with the Russian experience of using Blockchain platforms. At the end of October 2017, the Federal registration service announced that it was working with Vnesheconombank and the Mortgage and housing lending agency to develop a unified system based on Blockchain technology. According to the creators, it should accelerate the processing of mortgage contracts and equity participation in the registration service, excluding many employees of the Federal registration service from the process. This will reduce the time of registration to one day [1].

The Ministry of Education and Science of the Russian Federation has announced the launching of a Balmostlockchain platform for knowledge sharing and copyright management - the mechanism for the effective management of an intellectual property [7]. The project cost is estimated at ninety million rubles. It will ensure timely recognition of new forms of digital description of objects protected by intellectual rights, available for use, including for production, and simplify the entry of objects into circulation directly by the authors. Overall, the Russian Federation has finally started to build something for preventing copyright [2].

Finally, archives are beginning to be digitized. The State Committee for Archives of the Republic of Tatarstan decided to experiment with the use of Blockchain technology for the acceptance of documentation for archiving. It could provide confirmation of the authenticity of electronic documents throughout their lifecycle and support information security. Moreover, an electronic digital signature for proof of authenticity will certify electronic documents [6].

To sum up, we want to say that country's mentality, economic structure and historical aspects dictate the peculiarities of Blockchain platforms creation in each country. The Blockchain platforms created in Russia for the management of housing and communal services sphere, intellectual property and social sector, are used in the USA for simplification the way of life, human

behaviour and the form of relationships between people.

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CHINA'S DIGITAL ECONOMY AS A DRIVING FORCE OF THE COUNTRY'S DEVELOPMENT

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Abstract: *The article is devoted to the question of China's development identification through the digital economy. China has one of the most active digital-investment and start-up ecosystems in the world that is why this country is a leading driving force of venture-capital investment and mobile payments. The author gives data that allow judging the share of the digital China's market in comparison with other countries. Additionally, the article shows*

three main driving forces of China's digital economy and its percentage in the future expansion of various sectors. The article contains the examples of state economic initiatives.
Key words: *digital economy, innovative technologies, economic development of China.*

China is one of the leading economies in the world. According to the recent data China is the first country in comparison to the world in exports with the annual turnover in 2017 nearly 2.157 trillion dollars and the second country in imports (1.731 billion dollars) [3]. The country which reserves of foreign exchange and gold are estimated for 3.194 billion dollars, also takes the first place in such economic indicators as GDP (purchasing power parity), labour force, stock of narrow and broad money. It also improves economic processes within the country, using innovative technologies, attracting the highest level of labour resources and creating state programs for the business development.

The volume of China's digital economy in 2016 was estimated at 22.6 trillion yuan (about 3.2 trillion US dollars) and grew nominally by 18.9% compared to the previous year, which is much higher than the GDP growth. The share of digital economy in the total GDP of China was 30.3%, which is in 2.8% more than in 2015. On the global scale in 2016 the first place in terms of the digital economy's volume was taken by the USA with the volume of the digital market nearly 10.2 trillion dollars (56.9% of GDP). In 2017 China's digital economy was estimated at 30 trillion dollars while the share of DE in the total GDP was 33%, which is more in 2.7% than in 2016. The trend is likely to continue in the future and the value of China's digital economy is expected to hit 16 trillion U.S. dollars by 2035.

China is the world's largest e-commerce market, accounting for more than 40 % of the value of worldwide transactions, up from less than one percent a decade ago. In terms of mobile payments, China has a transaction value 11 times as more as that of the United States.

Today the country is especially proud of innovative success in the production of electronic computers for the aerospace industry and IT solutions for medicine. The Chinese market has its own analogues of the American giants, such as: the largest telecommunications company Tencent and the Baidu search engine, the analogue of Twitter which is called Weibo, the QQ and WeChat messengers, the Alibaba giant online store with the Alipay payment system, Xiaomi Tech with its Android version, completely independent from Google. Chinese companies easily managed to press out such giants as Cisco Systems Inc., Apple Inc., Intel, McAfee, HP and Citrix Systems.

The country is working at the idea of creating an industry that is 100% invulnerable to unauthorized access.

Three digital forces - disintermediation, disaggregation and dematerialization- can potentially shift (and create) from 10 to 45 % of industry revenue pools by 2030. Disintermediation and disaggregation can have the largest impact. Let us consider these forces in details:

- Consumer and retail. Disaggregation (sharing economy) and dematerialization (3-D printed goods) can serve the niche demand in specific categories. These forces can impact 13 to 34 percent of the industry revenue pool of the country;

- Automotive and mobility enables technology suppliers and automakers to reach consumers directly and shared-mobility solutions may reduce the demand for new car sales. Overall, digital forces can have an impact on 10 to 30 percent of the industry revenue pool of the country;

- Health care can help to address chronic diseases, while disaggregation (health-care big data) can minimize overtreatment. There could be an impact equivalent from 12 to 45 percent of health-care expenditure [2].

The share of the main sectors of the digital economy in China remains at 6-7% of GDP. In 2016 revenues from communication services were 2.1 trillion yuan, which is 11.5% higher compared to the previous year; income from the Internet business was 1.3 trillion yuan, (up 28.7% from a year ago); production in the manufacturing industries (the main business income - 20 million yuan and above) increased by 11.5%, which is 5.5 % higher than the average level of growth in the entire industrial sector. In the sphere of services, insurance (46.2%), audio and video production (45.4%), professional technical services (40.5%) were included in the top ten in terms of DE [4].

The digital economy is part of the government's vision of an economy driven by innovation – a key part of their goal of making domestic firms more competitive globally. In recent years, the Chinese government has pushed several national economic initiatives aimed at the development of the digital economy. These include the 13th Five Year Plan (March 2015), Made in China 2025 (May 2016), the Robotics Industry Development Plan (April 2016) and the Three-year Guidance for Internet Plus Artificial Intelligence Plan (May 2016) [1]. A booming digital economy is reshaping China's economic landscape as technology such as big data and AI revives traditional industries and casts new light on high-quality development.

To sum up, we can say that China is ahead of many countries along the path of innovative improvement almost in all spheres of society. The government gave digital players space to experiment and it is playing an active role in building world-class infrastructure to support digitization as an investor, developer and consumer. The above shows that China has an increasingly visible presence on the global stage and rising impact on the global economy. Chinese digital companies are expanding business models outside the country's borders and sharing their technologies with foreign partners, enabling their expansion. China's digital globalization is young enough, but is gathering momentum. Moreover, innovative technologies create a general trend for the development of the country and all sectors of its economy in general.

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LA BANCA ONLINE Y LAS PERSPECTIVAS DE SU DESARROLLO EN ARGENTINA

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Abstract: *The article describes some aspects of the development of online banking in Argentina. The current situation of banks is determined and prospects are outlined.*

Key words: *digital economy, Argentina, online banking, development, technologies.*

La banca online es una serie de tecnologías que permiten obtener acceso a las cuentas bancarias y operar a través de cualquier dispositivo con acceso a Internet. El objetivo de este proyecto es estudiar el grado de desarrollo de este servicio en los países de América Latina, entre ellos - Argentina.

Según el informe sobre Digitalización de países de América Latina, 93.1% de los habitantes de Argentina son usuarios de Internet y 79.6% utilizan la banca online. Según el ranking Doing Business, en 2017 Argentina obtuvo 55 de 100 puntos en la categoría «Crédito». Esta categoría incluye tales criterios como: la cesión de créditos, los derechos de acreedor y su cumplimiento. Por eso hay que elaborar medidas para aumentar los pagos sin efectivo en 5 direcciones:

1. La regulación (prestaciones, deducciones fiscales);
2. La inclusividad (transferencias sociales por Internet);
3. El grado de instrucción (alianzas público-privadas en el mercado de pagos minoristas);
4. La competencia (desarrollo del sistema financiero y negocios eficaces);
5. La infraestructura (catalizador de transición y promoción de técnicas, un acuerdo con las organizaciones internacionales, sistema de procesamiento único, sistema de identificación único).

Actualmente los servicios de banca online en Argentina prestan tales bancos como: HSBC, Santander [4], BBVA Francés, Banco de la Nación Argentina [3].

En junio de 2017 el Banco Central de la República Argentina, BCRA) empezó a llevar a cabo la reforma financiera local. El vicepresidente del banco Lucas Llach dijo que el banco se propone trasmitir todos los documentos y operaciones en los portadores de información. Este proceso cambia el sistema financiero, ya que el sistema siempre dependía en los portadores de datos en papel. Según Lucas Llach, este proyecto contribuirá a reducir los costos y facilitar la ejecución de procesos financieros. Además, se prevé poner en marcha el sistema de identificación digital, que sustituirá la contraseña y reforzará el nivel de seguridad de las operaciones.

En Argentina funciona el programa «Argentina Innovadora 2020: El Plan Nacional de Ciencia, Tecnología e Innovación». Este programa supone la introducción de nuevas tecnologías en diferentes esferas de la sociedad

(agricultura, sanidad etc.) para garantizar el acceso facilitado a las tecnologías y a las plataformas digitales a la población y las organizaciones [4].

A principios de 2018 Mauricio Macri, el presidente de Argentina, durante la reunión con el presidente de Rusia, Vladimir Putin, abordó varios aspectos de la cooperación bilateral en diferentes esferas [1]. Las partes expresaron interés en el desarrollo y en la cooperación en la esfera de la tecnología de la información, que contribuirán al crecimiento económico, en el comercio electrónico internacional.

En resumen, cabe señalar que el desarrollo de las tecnologías de información, sobre todo de la banca online, tiene enormes perspectivas en Argentina. Las tecnologías estimulan el desarrollo de todo tipo de negocios (en particular de las pymes), permiten gestionar sus asuntos a distancia ahorrando en transporte y en otros gastos, al mismo tiempo, la población, además, puede ahorrar tiempo.

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THE ENGINE OF DIGITAL ECONOMY

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Abstract: *The article describes some aspects of the supporting infrastructure in the development of the digital economy. The Internet provides a significant part of the economy's growth. Many digital technologies are based on connecting to the Internet.*

Key words: *digital economy, Internet, GDP, economic growth.*

The digital economy is a very topical direction in the economy today. It is the most important engine of innovation, competitiveness and economic growth in the world. Researcher Thomas Mezenburg highlights three components in the concept of digital economy: 1) supporting infrastructure; 2) e-business; 3) e-commerce.

The goal is to explore the role of the Internet in the economic life of the society.

Objectives:

- To study the penetration of the Internet into the world;
- To study the dynamics of using the Internet in Russia.

Supporting infrastructure is of great importance. In today's world society, there can be no question without such a concept as the Internet. The Internet is an element of economic progress, which provides a significant part of the growth of the economy.

Every year, the number of Internet users is growing. The number of Internet users increased by 7%, which amounted to 4,021 billion people (53% of the world's population) compared to 2017 [2].

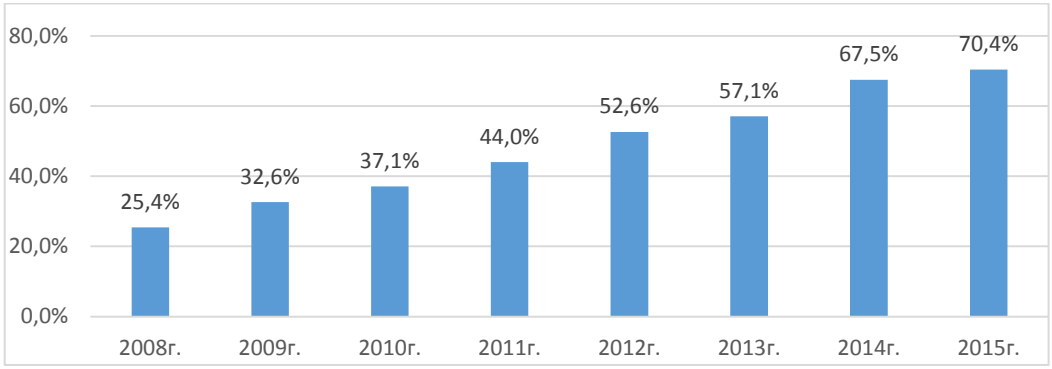

Fig. 2. The graph of the growth of users' Internet in Russia for the period 2008-2015.

Internet users are getting bigger every year. The graph shows the growth dynamics of users in Russia. 84 million people aged 16 years and older are Internet users in Russia.

The program for the development of the digital economy in Russia was adopted on July 6, 2017 [1]. An important aspect of this program is the development of computer and telecommunications equipment. This is directly related to the development of the Internet in the country. Digital technologies are mostly based on the World Wide Web. It stores data, there is a constant exchange of information, money transactions are made. Russia ranks first in

Europe and sixth in the world in terms of the number of Internet users [4; 5]. According to forecasts, the digitalization of the Russian economy can increase the country's GDP by 2025 from 19 to 34% of GDP growth, which is 4.1-8.9 trillion rubles. Digital technologies are mostly based on the World Wide Web. It stores data, there is a constant exchange of information, money transactions are made.

In Europe, the Internet is used more than in other regions. The penetration of Internet in different regions is very different. The highest rate at this stage is in Northern(94%) and Eastern(90%) Europe and North America(88%). Low penetration of Internet have the countries of South Asia and Africa. The lowest rate is observed in middle Africa-12%. Thus, more than half of the world's population is connected to the world wide web. It is important to note that nearly a quarter of a billion new users first joined the Internet in 2017 [3].

In conclusion, I want to note that the majority of the world's population uses the Internet. The dynamics of Internet use in Russia shows that every year Internet users become more. This is due to the fact that the Internet becomes available in different areas. The future is moving rapidly towards new technologies that are transforming our lives from a traditional economy to a digital economy. To implement the project of the Government of the Russian Federation requires the creation of broadband Internet coverage in the most remote corners of Russia. The introduction of new digital platforms, the creation of "smart cities" and special technology centers can transform modern society.

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ПЕРСПЕКТИВЫ РАЗВИТИЯ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА В УСЛОВИЯХ ЦИФРОВОЙ ЭКОНОМИКИ

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Аннотация: *После цифровой революции активно началось внедрение новых информационных технологий во все сферы жизни. Затронула она и экономику. В данной статье рассматриваются перспективы развития международного сотрудничества в рамках цифровой экономики.*

Ключевые слова: *цифровая экономика, перспективы сотрудничества, информационные технологии.*

Ни для кого не секрет, что в современном мире быстро развиваются цифровые технологии, которые становятся частью нашей жизни. Этот процесс коснулся экономики, и была создана так называемая цифровая экономика, которая представляет собой совокупность экономических, социальных и культурных отношений и которая основана на применении новых цифровых технологий.

В конце 1950-х годов возник процесс цифровой революции, который, в свою очередь, представляет собой переход от механической аналоговой электронной технологии к новой цифровой электронике. Развитию информационных технологий способствовали радикальные изменения, которые были вызваны цифровыми вычислительными и коммуникационными технологиями [3].

В развитых странах начали бурно внедрять информационные цифровые технологии в экономику. На данный момент лидерами в мире по цифровой экономике являются такие страны, как Сингапур, Новая Зеландия, Великобритания, Япония, Израиль и так далее [1].

На уровне правительства в России начали развивать цифровую экономику после принятия программы «Цифровая экономика» в 2017 году. В программе указывалось на необходимость создания условий для повышения эффективности отраслей экономики. Главной целью программы «Цифровая экономика» станет появление 10 высокотехнологичных организаций, которые будут функционировать на глобальном рынке, обеспечивая развитие цифровой экономики [4].

Итогом программы «Цифровая экономика» станет улучшение жизни граждан, повышение качества товаров и услуг с применением цифровых технологий.

Важным вопросом международного сотрудничества является вопрос формирования глобального цифрового пространства. Необходим диалог стран для развития цифровой экономики. Следует отметить значимость участия России в международных организациях и в неформальных объединениях: ООН, СНГ, АТЭС, ОДКБ, БРИКС, ЕАЭС и так далее. Для реализации интересов России и формирования лидерских позиций в рамках цифровой экономики международные организации должны стать значимой площадкой. В плане международного взаимодействия необходимо расширить стратегический диалог по вопросам развития международного цифрового пространства. Необходимо учесть национальные приоритеты при составлении международных договоров России в области внешнеэкономического взаимодействия. Для того чтобы предотвратить экономические конфликты, поддерживать доверие и равноправие всех субъектов мировой экономики, чтобы соблюдать справедливость и уважение к обязательствам международных договоров, а также содействовать социальному и экономическому прогрессу всех стран, возникает необходимость создания наднациональной организации для решения вопросов по укреплению мира и безопасности, а также развитию сотрудничества между странами в сфере цифровой экономики. Эта наднациональная организация призвана обеспечить мир и безопасность в глобальном цифровом пространстве и способствовать экономическому и социальному прогрессу всех стран международного сообщества [2].

Россия может стать одним из главных инициаторов создания данной наднациональной организации и внести свой вклад в создание единой глобальной цифровой юрисдикции, которая будет заниматься регулированием цифрового пространства на глобальном уровне.

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ПЕРСПЕКТИВЫ РАЗВИТИЯ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА РОССИИ И ТАДЖИКИСТАНА В УСЛОВИЯХ ЦИФРОВОЙ ЭКОНОМИКИ

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Аннотация: *В статье рассматриваются основные тенденции развития цифровой экономики в Таджикистане. Усиление сотрудничества между Россией и Таджикистаном в условиях цифровой экономики будет способствовать дальнейшему развитию отношений двух стран.*

Ключевые слова: *экономика Таджикистана; цифровая экономика; перспективы сотрудничества.*

Сотрудничество России и Таджикистана имеет давнюю историю. Согласно «Договору о дружбе, сотрудничестве и взаимной помощи между Российской Федерацией и Республикой Таджикистан» (1993 г.), стороны закрепили желание координировать свои действия в области экономических преобразований, денежно-кредитной, валютной, налоговой и ценовой политике; обеспечивать благоприятные экономические, финансовые и правовые условия для предпринимательской и иной хозяйственной деятельности.

Прежде чем говорить о сотрудничестве России и Таджикистана в условиях цифровой экономики, стоит обратиться к термину «цифровая экономика». В научной литературе существует много подходов к раскрытию данного термина. Согласно определению М.Л. Калужского, «цифровая экономика – это коммуникационная среда экономической деятельности в сети интернет, а также формы, методы, инструменты и результаты ее реализации» [1].

В докладе Всемирного банка о цифровой трансформации Таджикистана «Получение цифровых дивидендов. Использование интернета для развития в Европе и Центральной Азии», отмечалось, что цифровой Таджикистан может стать важным источником инноваций, роста и занятости, при условии, что страна будет больше инвестировать в

навыки людей, предпринимательскую среду, а также усиливать цифровую инфраструктуру. Однако, по мнению экономистов, главным барьером в развитии цифровой экономики в Таджикистане является слаборазвитый доступ в интернет и высокие цены [2]. Жители Центральной Азии платят большие суммы денег за доступ к интернету. Взамен же они получают услуги низкого качества. Скорости мобильного обмена данными в некоторых странах едва хватает на отправку текстового сообщения.

Не менее важной проблемой в развитии цифровой экономики в Таджикистане является сетевая безопасность. В последние годы участились мошенничества с телекоммуникационными технологиями, раскрытие информации клиентов и т.д.

Однако эксперты уверены, что страны Центральной Азии, в частности Таджикистан, могут улучшить связи и перспективы электронной торговли благодаря территориальной близости с Китаем. Но пока движение в этом направлении заметно уступает уровню ожиданий.

Сотрудничество России и Таджикистана в условиях цифровой экономики производится главным образом в сфере продажи телекоммуникаций. На рынке высоких технологий страны активно работают крупные российские компании, например, такие как ООО «Таком» (торговая марка «Билайн»), ЗАО «Мегафон Таджикистан». В Таджикистане основную конкуренцию местной монополистической компании, предоставляющей услуги сотовой связи, а также широкий доступ в интернет, составляет российская телекоммуникационная компания «Мегафон». Это, безусловно, приводит к улучшению сотовой связи и предоставления доступа к интернету. Улучшение конкуренции в секторе телекоммуникаций приводит к повышению эффективности бизнеса и росту экономики в целом.

Интерес к цифровой экономике растет, что способствует усилению сотрудничества Таджикистана и России в следующих отраслях: нефтяной рынок, к примерам можно отнести Газпром, рынок пшеницы, и тоже немало важный рынок труда, то есть трудовая миграция. Ведь почти 42% Таджикского ВВП составляют денежные переводы трудовых мигрантов, этот показатель самый высокий в мире. По мнению научных сотрудников *Института демографии НИУ ВШЭ,* трансферты мигрантов вносят вклад в социально-экономическую ситуацию в их родной стране. Поток переводов содействует росту уровня потребления, сбережений, а также вложений в образование и охрану здоровья родственников мигрантов.

Уровень бедности домохозяйств в странах-реципиентах трансфертов снижается. Для стран-доноров бонус денежных переводов связан с привлечением дополнительной иностранной рабочей силы и наращиванием своего влияния в странах исхода мигрантов [3].

Россия остается главным торгово-экономическим партнером Таджикистана. По мере развития взаимоотношений между Таджикистаном и Российской Федерацией, двусторонние межгосударственные договоренности были достигнуты во многих сферах: экономики, информационного обмена, образования и науки, гражданства и трудовой миграции, реструктуризации задолженности, дипломатических отношений, транспорта, борьбы с незаконным оборотом наркотических средств.

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ПЕРСПЕКТИВЫ РАЗВИТИЯ МЕЖДУНАРОДНОГО СОТРУДНИЧЕСТВА РОССИИ И МОНГОЛИИ В УСЛОВИЯХ ЦИФРОВОЙ ЭКОНОМИКИ

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Аннотация: *В данной статье рассмотрены особенности состояния цифровой экономики в России и Монголии. Обоснована необходимость сотрудничества в сфере цифровой экономики двух стран и предложены конкретные меры по развитию международного сотрудничества.*

Ключевые слова: *цифровая экономика; Россия; Монголия; международное сотрудничество; перспективы развития.*

Цифровая экономика как система экономических, социальных и культурных отношений, основанных на использовании цифровых технологий, изменяет не только нашу повседневную жизнь, но и производственные отношения, структуру мировой экономики.

Россия и Монголия – соседи и партнеры. Согласно исследованию Всемирного экономического форума Россия в 2016 году заняла 2-е место в мире по уровню доступности услуг сотовой связи и 10-е место в мире по уровню доступности услуг широкополосного доступа в Интернет. При этом на 100 человек приходилось 160 мобильных телефонов и 73% населения пользуются интернетом [1].

28 июля 2017 года утверждена программа «Цифровая экономика Российской Федерации». Задача программы – улучшение жизни граждан путем повышения эффективности отраслей за счет современных информационных технологий.

Сегодня доля цифровой экономики в ВВП России составляет лишь 3,9%. Согласно исследованию консалтинговой компании McKinsey, цифровизация экономики может увеличить ВВП России к 2025 году на 4,1–8,9 трлн руб., что составит от 19 до 34 % общего ожидаемого роста ВВП [2].

Цифровая экономика в Монголии начала развиваться с 2000 года. Тогда доля населения, имеющего выход в интернет, составляла всего 1,1 %, а в конце 2017 года насчитывалось 2 млн 657 тысяч активных интернет-пользователей, что составляет 83% от населения страны [4]. Кроме того, в Монголии возрастает популярность мобильной широкополосной связи из-за более высоких скоростей. По уровню использования мобильного телефона Монголия занимает пятое место в мире [3].

В Монголии 1 января 2018 года вступил в силу «Закон об электронных деньгах», создана рабочая группа при Центробанке Монголии по изучению возможности выпуска цифровых денег под названием «Эгэрэг». Использование криптовалют предоставит возможность конкурировать с банками на внутренних и международных рынках транзакций и напрямую окажет положительное влияние на развитие онлайн-торговли и электронной платежной системы.

Для решения общих вопросов, таких, как открытость данных, введение единых стандартов, сетевая безопасность, защита личной информации и т.д., необходимо сотрудничество и взаимодействие всех стран мира.

Россия и Монголия являются добрыми соседями и надежными партнерами, стратегические интересы и экономические цели которых на высоком уровне совпадают.

Главной задачей для обеих стран является создание стабильной и безопасной цифровой инфраструктуры. Для этого необходимо разработать общий план сотрудничества с определением приоритетных направлений, ключевых задач совместной деятельности и заключить меморандум о стратегическом сотрудничестве в сфере цифровой экономики.

На основе указанных выше механизмов страны в дальнейшем могут рассматривать возможность осуществить следующие действия:

- создать российско-монгольский инвестиционный фонд развития цифровой экономики с участием ведущих предприятий двух стран;
- сформировать экспертную рабочую группу, которая будет определять приоритетные направления и конкретные проекты двустороннего сотрудничества в области цифровой экономики;
- наладить сотрудничество в области развития цифровой грамотности граждан двух стран;
- прилагать совместные усилия к созданию платформы по сотрудничеству в сфере информатизации сельского хозяйства.

Таким образом, Монголия и Россия обладают необходимыми условиями для развития цифровой экономики, и обе включают цифровую экономику в свои приоритетные направления развития в будущем десятилетии. Усиление и углубление сотрудничества между Россией и Монголией в области цифровой экономики будут не только способствовать дальнейшему развитию отношений всестороннего стратегического взаимодействия двух стран, но и служить весомым вкладом в продвижение глобальной экономической трансформации и развитии мировой экономики.

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