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INTERCULTURAL SHOLARLY DISCUSSION
AS AN OBJECT OF METHODOLOGICAL MODELLING IN FLT

Abstract. The article deals with the problems of methodological modeling of intercultural scientific discussion in a foreign language as an international academic measure implemented through intercultural academic interaction of representatives of various cultural,linguistic and research communities. For professional-branch communicative preparation of students of language specialties for effective participation in this scientific event in a foreign language it is necessary: a) to determine the conceptual content of the term "intercultural scientific discussion"; b) to identify the nomenclature of sequential fragmentation of intercultural communicative macro education in the micro education term on the basis of didactic-oriented content analysis of the system of activity for participants of intercultural scientific discussion in the socio-cultural academic role; c) to identify the main types of professional task assignments (in the context of international and national universities standards) created by a hierarchical system of foreign language for consistent and dynamic communicative and cognitive development of students as an equal participant of intercultural academic communication.

Key words: intercultural academic communication, intercultural scientific discussion, socio-cultural academic roles, intercultural communicative macro and micro educations, professional-profile and cultural-oriented problem tasks.

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Шет тіліндегі мәдениетаралық ғылыми дискуссияның әдістемелік моделі

Аңдатпа. Бұл мақалада шет тіліндегі мәдениетаралық ғылыми дискуссияны әдістемелік моделдеудің әртүрлі мәдени-тілдік және ғылыми-зерттеушілік қауымдастық өкілдерінің мәдениетаралық академиялық өзара әрекеттесуі арқылы жүзеге асатын халықаралық академиялық шара ретіндегі мәселелері қарастырылады. Тілдік мамандықтардағы студенттерді шет тіліндегі аталған ғылыми шараға тиімді қатыстыруда кәсіби-салалық коммуникативті дайындау үшін мыналар қажет: а) «мәдениетаралық ғылыми дискуссия» терминінің ұғымдық мазмұнын анықтау; б) мәдениетаралық ғылыми дискуссияға қатысушылардың әлеуметтік-мәдени академиялық рөліндегі іс-әрекет жүйесін дидактикалық-бағытталған контент-сараптау негізінде мәдениетаралық коммуникативтік макробілімді бірте-бірте микробілім терминінде бөлшектеудің номенклатурасын анықтау; в) Мәдениетаралық академиялық қарым-қатынастың тең құқылы қатысушысы ретінде студенттердің дәйекті және динамикалық коммуникативтік-когнитивті дамуы үшін ШТ иерархиялық жүйемен құрылған кәсіби-профилді мәселелік тапсырмалардың негізгі түрлерін (халықаралық және ұлттық университеттер стандарты контексінде) анықтау.

Түйін сөздер: мәдениетаралық академиялық қарым-қатынас, мәдениетаралық ғылыми дискуссия, әлеуметтік мәдени академиялық рөлдер, мәдениетаралық коммуникативтік макро- және микробілімдер, кәсіби-профильді мәдени-бағытты проблемалық тапсырмалар.

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Межкультурное общественное обсуждение
как объект методологического моделирования

Аннотация. В данной статье рассматриваются различные культурные, лингвистические и исследовательские сообщества в области межкультурного диалога. Определено понятие «межкультурная научная дискуссия»; дано определение номенклатуры последовательной фрагментации межкультурного коммуникативного макрообразования, роли межкультурной научной дискуссии в социокультурной академической роли дидакти-

чески ориентированного контент-анализа; определены основные виды профессионального назначения и меж-
культурного академического общения. Получившие развитие во второй половине XX в. процессы глобализа-
ции и интернационализации актуализировали такой аспект социальной коммуникации, как взаимодействие в
межкультурной среде. Например, чрезвычайно важные функции в процессе межкультурного взаимодействия
выполняет невербальная коммуникация. Используемые при этом знаки, действия и символы могут иметь раз-
личное значение для его участников и оказывать влияние как на процесс взаимодействия, так и на его ре-
зультаты. Многое зависит от изначального настроя, от установок человека, который готовится осуществлять
межкультурный контакт или уже его осуществляет. Основными барьерами, которые снижают эффективность
интеракций, являются различия когнитивных схем, используемых представителями разных культур. Наиболее
ярко дифференциация моделей восприятия проявляется при столкновении с иным мировоззрением, мироощу-
щением и т.п.

Ключевые слова: межкультурная академическая коммуникация, межкультурная научная дискуссия, соци-
окультурные академические роли, межкультурное коммуникативное макро- и микрообразование, профильные
и культурно ориентированные проблемные задачи.

Introduction. The need for active and productive participation of Kazakhstan in modern global civilization programs such as "Open Education" and "Open Science", "Open Innovations", "Opening to the World" set a number of challenges for higher education. They are: to train specialists who are ready and capable for effective professional intercultural interaction in the context of cultural and civilized dialogue in today's globalized world, where geopolitical, cultural, linguistic, religious and political-economic contradictions are worsening, and information wars in human world outlook. From the earliest times, debate is considered to be the most effective form of dealing with a controversial issue that arises in human life and is an integral part of the humanitarian education and partly linguistic knowledge. So far, the focus has been on general issues of the teaching methodology and the discussion of the methodological potential of this language form as a developer of communicative tools. Therefore, in the context of intercultural competence, dynamically focused on such levels of higher education as magistracy, doctoral studies, but special attention was not paid to the problems of formation and development of academic discussion in higher education. This article deals with the basics of academic discussion in a foreign language, methodological modeling of the behavior of participants of scientific academic debate and international norms of interaction for the discussion in accordance with their social and cultural academic roles.

Literature review. Methodological interest in the study of the debate in foreign language appeared in the 70s of the last century, and it contributed to the publication of the first methodological works about the discussion in the teaching system of foreign language. Thereafter, this issue has been a subject of research in the field of language pedagogy. As a result, P. B. Gurvich, E. V. Shantarina, N. E. V.

Shuvalova, E. V. In Smirnova's works it became possible to define a certain set of discussion skills and offer forming and developing tasks on the basis of the studied foreign language material. The methodological significance of these works is still high. However, it should be noted that in the works of the above-mentioned authors were not paid attention to many objective and subjective reasons of intercultural aspect. However, it is doubtful whether it is possible to create a methodical model of teaching students academic discussion, which is important for the effectiveness of intercultural academic discussion in the context of civilization and the modern multilingual and multicultural world, striving for "Open education", "Open science", "Open innovation", without paying full attention to this issue. At the same time, in the field of domestic linguistics, there is still a tendency to ignore the intercultural aspect of teaching discussions using methodological researches in Universities. This process continues in domestic science, despite the fact that such universal competencies as "communication" and "intercultural interaction" (in the formation of these competencies, the University plays a key role in language teaching), are manifested as educational results in all languages studied in the Universities. When studying intercultural scientific discussion in the intercultural aspect of modeling, it is necessary, first of all, to pay attention to the linguistic meaning of this term. In this article, intercultural scientific discussion is understood as a type of discourse functioning in the language space of international professional and scientific events (international scientific conference or international scientific seminar), the main purpose is a group or collective assessment of theoretical and applied scientific results or analysis of the achievement of academic consensus in the process of their ethnic/ super ethnic, regional, continental, religious and

geopolitical cultural and linguistic interaction of representatives of cultural and linguistic subcultures. In the process of intercultural scientific discussion communicators solve many communicative and high communicative professional tasks:

• to analyze actual problems in the work of a particular scientific school and issues of interest from a scientific point of view (including certain parts of the discussion interaction) and the results.

• the possibility of research and scientific consensus on the most controversial conceptual rules.

• Establishing and maintaining cooperation for further professional communication with colleagues in virtual and non-virtual space, exchange of professional experience.

Material and Methods. While modeling intercultural scientific debate in terms of foreign training of students of a magistracy it is advisable to divide intercultural communicative macro education into micro educational level. To analyze of original materials, video recordings of the scientific discussion (which took place at international conferences and scientific and methodological seminars in English or appropriate languages in 2014-2018) and identify the nomenclature of intercultural communicative macro-and micro education of the organizers and other participants of the scientific discussion for linguo-didactic purposes, as well as the definition of their range in the performance of various socio-cultural academic roles (Afuach 2003:86 p). Based on the expertise of international scientific and practical seminars initiated by the European Council and the European Union, we include the following roles which are in the socio-cultural academic role:

• Chairman and / or Leading Organizer;
• Expert / experts;
• Moderator / group of moderators;
• Facilitator/ group of facilitators;
• Representatives of scientific schools and national academic associations.

There are main macro and micro educational nomenclature common to most participants of international science workshops associated with their specific cross-cultural roles (Table 1):

Table 1 − The system of activity for organizing scientific discussions

Macro education	Micro education	Socio-cultural academic roles
To organize academic discussions based on the cultural and social background of the participants;	● to meet participants of scientific discussion as representatives of different cultural/cultural-linguistic communities; ● to interpret the relevance of scientific discussion topic; ● to distinguish the problem parts of the academic debate; ● to interpret organizational forms of interaction (if it is necessary); ● to strict compliance with the temporary rules of academic interaction in the format of scientific discussion.	●Presiding director/organizer of the scientific discussion. ● Invited Experts.
To present moderators, facilitators, experts to the audience;	●to use cultural and social formulas for moderators and experts properly; ● to provide accurate information about the scientific achievements of experts and moderators, their valuable work in the real science and pedagogical activity.	●Presiding director/organizer of the scientific discussion. ● Invited Experts.
The ability to summarize the results of intercultural research;	● to ask a number of research questions that require cooperation and collaboration in research and education. To determine the main results obtained in the course of scientific discussion; ● To express appreciation to the participants of the intercultural scientific debate for the discussion of main problems for the development of modern science;	●Presiding director/organizer of the scientific discussion. ● Invited Experts.
To express final words of gratitude on the results of intercultural scientific discussion;	to use polite forms of communication with representatives of academic communities correctly; ● To thank for the opportunity to participate in cross-cultural scientific discussion, obtained in the intercultural academic relations; ● To determine the importance of intercultural scientific discussion in the development of modern science; ● To use appropriate non-verbal communication tools;	●Presiding director/organizer of the scientific discussion. ● Invited Experts.

In accordance with the current regulatory and methodological strategy of higher education, the participants of the scientific discussion in a foreign language acquire socio-cultural academic roles if they have mastered it before the master's and doctoral studies, as a specialty at the bachelor's level (Chesbrough 2006:50). And at the master's level, it is planned to master academic roles by directing participants of interaction debate, but in doctoral studies this process will be mastered in the system of activities of academic roles, facilitators, moderators aimed at experts. However, it is connected with micro education and professional foreign language that determine the communicative-pragmatic minimum of verbal and non-verbal thinking, combined with a specific macro education and linguo-cultural format.

Results and Discussion. In the absence of the above conclusion "Vocational training, a professionally-oriented complex of problem-communicative tasks necessary to ensure the rational and effective participation of undergraduate students majoring in intercultural linguistic, cultural and research environment with representatives of the academic community in the research environment that has been focused on the needs to integrate competence and problem positions, allowing to create tools for methods of creating a problem-oriented environment that meets the regulatory and methodological requirements of the professional standard" Teacher of vocational education and additional vocational education" the desire would be a utopia.

Mastering the system of interaction debate, especially in conditions of intercultural academic communication is a complex of methodological system that requires the creation of a hierarchical system of professionally-oriented problem communicative tasks to prepare students of language specialties for intercultural academic communication (DasilvaM.C. 2013: 13). Therefore, when modeling intercultural scientific discussion of linguo-didactic purpose in this issue it is rational to use the following:

1. Cultural-oriented communicative tests (B2) (aimed at developing the ability of the communicative-linguistic competence to select adequate linguistic means of expression in debates related to intercultural discussion);

2. Professionally-oriented cultural,educational and search tasks (contributing to the development of control of verbal and non-verbal activities of participants for intercultural scientific discussion in foreign language, the generalization of their communicative and pragmatic observations, the definition and generalization of the activities of participants for the scientific discussion and the Chief-organizer of the scientific seminar, moderators and facilitators in the case perform their academic functions);

3. Professionally-oriented communicative and pragmatic tasks (including the search for ways to overcome the communicative and cognitive barriers typical of Kazakh people in interaction with representatives of other academic linguo-cultural communities, formed on the materials of problem situations in the framework of the international scientific seminar, as well as the definition of professional and communicative tasks necessary to solve by communicators in the process of academic interaction);

4. Academic role-playing games aimed at learning the real socio-cultural academic roles;

5. To research case study involved in the process of modeling the scientific seminar as a communicative event, characterized by well-established and strictly regulated rules of the academic game.

Conclusion. So, the nomenclature of intercultural communicative knowledge recommended as a result of the linguo-cultural description of intercultural academic discussion and its combination with the main socio-cultural academic roles, as well as professionally-oriented problem communicative tasks are necessary prerequisites for the design of a holistic model of training students to intercultural communication with representatives of various linguistic and cultural academic communities in foreign language.

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FOUNDATIONS OF REGIONAL MONETARY INTEGRATION

Abstract. The statistical data on foreign investments in the EAEU countries, on the share of gross volumes of mutual trade in the total volume of foreign trade in the EAEU as a whole and in the EAEU member states, are given. Analysis of mutual trade and investment indicators showed an insufficient level of economic convergence in the EAEU, assessed from the standpoint of the mutual trade intensity and mutual foreign direct investment intensity. At the moment, the volumes and dynamics of trade and investment flow between the EAEU member states do not cause an objective need for a transition to monetary cooperation at the level of a currency union. This research allows us to consider the problem of transition to monetary integration between the countries participating in the EAEU from the importance standpoint of economic prerequisites. The practical significance of the work lies in the substantiation of the objective prerequisites for the formation and creation of a monetary union in the course of regional integration processes development.

Key words: Currency union, optimal currency area, mutual trade intensity, mutual investment intensity, customs union.

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Өңірлік валюта-интеграция негіздері

Аңдатпа. Зерттеудің әдіснамасы «оңтайлы валюта аймағы» теориясының негізгі идеяларына негізделген. Мақалада ЕАЭО елдеріне бағытталған шетелдік инвестициялар бойынша, тұтастай ЕАЭО-дағы жалпы сыртқы сауданың және оның ішіндегі мүше мемлекеттердің өзара сауда көлемдерінің үлесі туралы статистикалық дерек-тер келтірілген. Өзара сауда және инвестиция көрсеткіштерінің талдауы ЕАЭО-ға мүше елдердің экономикалық конвергенциясының жеткіліксіз деңгейін көрсетті. Қазіргі кезде ЕАЭО-ға мүше-елдер арасындағы сауда және инвестициялық ағымдардың көлемдері мен серпіні валюта одағы деңгейіндегі ынтымақтастыққа өтуге объективті қажеттілікті тудырмайды. Жүргізілген зерттеу экономикалық алғышарттардың маңыздылығы тұрғысынан мүше-елдердің валюталық интеграцияға көшу мәселесін қарастыруға мүмкіндік береді. Жұмыстың тәжірибелік маңыздылығы аймақтық интеграциялық үдерістерді дамыту барысында валюта одағын қалыптастыру мен құрудың объективті алғышарттарын анықтауына негізделеді.

Түйін сөздер: Валюталық одақ, оптималды валюталық аймақ, өзара сауданың қарқындылығы, өзара инвестициялардың қарқындылығы, кедендік одақ.

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Основы региональной валютной интеграции

Аннотация. В статье рассматриваются историко-политические и основополагающие экономические предпосылки перехода к валютной интеграции в рамках ЕАЭС на современном этапе его развития. При-ведены статистические данные об иностранных инвестициях, поступивших в страны ЕАЭС, об удельном весе валовых объемов взаимной торговли в общем объеме внешней торговли по ЕАЭС в целом и по государствам-членам ЕАЭС. Анализ показателей взаимной торговли и инвестиций показал недостаточный уро-вень экономического сближения стран-участниц ЕАЭС, оцениваемого с позиций интенсивности взаимной торговли и взаимных прямых иностранных инвестиций. На данный момент объемы и динамика торговых и инвестиционных потоков между государствами-участниками ЕАЭС не вызывают объективной потребности к переходу к валютному сотрудничеству на уровне валютного союза. Проведенное исследование позволя-ет рассмотреть проблему перехода к валютной интеграции между странами-участниками ЕАЭС с позиций

значимости экономических предпосылок. Практическое значение работы заключается в обосновании объективных предпосылок формирования и создания валютного союза в ходе развития региональных интеграционных процессов.

Ключевые слова: Валютный союз, оптимальная валютная зона, интенсивность взаимной торговли, интенсивность взаимных инвестиций, Таможенный союз.

Introduction. Regional economic integration has enabled countries to focus on issues that are relevant to their stage of development as well as encourage trade between neighbors.

There are four main types of regional economic integration.

1. Free trade area. This is the most basic form of economic cooperation. Member countries remove all barriers to trade between themselves but are free to independently determine trade policies with nonmember nations. An example is the North American Free Trade Agreement (NAFTA).

2. Customs union. This type provides for economic cooperation as in a free-trade zone. Barriers to trade are removed between member countries. The primary difference from the free trade area is that members agree to treat trade with nonmember countries in a similar manner.

3. Common market. This type allows for the creation of economically integrated markets between member countries. Trade barriers are removed, as are any restrictions on the movement of labor and capital between member countries. Like customs unions, there is a common trade policy for trade with nonmember nations. The primary advantage to workers is that they no longer need a visa or work permit to work in another member country of a common market.

4. Economic union. This type is created when countries enter into an economic agreement to remove barriers to trade and adopt common economic policies.

In the past decade, there has been an increase in these trading blocs with more than one hundred agreements in place and more in discussion. A trade bloc is basically a free-trade zone, or near-free-trade zone, formed by one or more tax, tariff, and trade agreements between two or more countries. Some trading blocs have resulted in agreements that have been more substantive than others in creating economic cooperation. Of course, there are pros and cons for creating regional agreements.

Evaluation of the development level of integration processes within the Eurasian Economic Union (EAEU) and the prospects for their deepening in the future is carried out in many areas. Among them, an important place is occupied by the study of the possibility and need for a transition to integration in the monetary sphere. Currency integration within the framework of the EAEU implies stabilization of exchange rates, the creation of a unified system of cross-border settlements, consolidation of currency and financial markets, and the creation of a currency union in the future − the final link of monetary integration. The issue of creating a currency union has been repeatedly discussed by the heads of the allied states, but neither they nor the experts in the field of economic integration can find a rational solution to the task.

The article discusses the main economic prerequisites and the readiness of the EAEU member countries to join the currency union. The decision to accelerate the transition of the EAEU to a higher integration level, according to analysts, is largely due to the current foreign policy situation. However, the integration is an objective process. Therefore, the lack of a thorough phased scenario of convergence in the monetary cooperation sphere, a reasonable choice of the necessary elements of the future EAEU monetary system, the determination of expedient dates for the transition to a new integration level, the hasty adoption of the most important economic decisions may become factors of a new systemic risk for economies EEU countries.

Literature review. The works of R. Mandell served as the basis for numerous studies in the field of monetary integration by representatives of various economic schools. Scientists have identified the most significant criteria, compliance with which is considered mandatory to maintain stability in the economies of the currency area countries. R. McKinnon as a necessary condition determined the mutual openness of the economies of the allied states (McKinnon, 1963: 717-725). P. Kenen added diversification of national economies. The scientist considered fiscal integration to be another measure of the readiness of national economies to join the optimal currency area (Kenen, 1969: 41-60). J.M. Fleming came to the conclusion that in the countries of the optimal currency area prices should be similar (Fleming, 1971: 467-488). J. Ingram as a prerequisite for the optimality of the currency area considered the integration of financial markets (Ingram, 1969: 95-100). According to R. Vobel, the important conditions for the formation of the currency area

are the volatility of real exchange rates and the correlation of economic shocks (Vaubel, 1976: 429-470). The need for institutional and political integration within the framework of the monetary zone was substantiated in the research of M. Mussy (Mussa, 1997: 217–221), I. Ishiyama (Ishiyama, 1975: 344–383) and R. McKinnon (McKinnon, 1997: 227–229).

Material and Methods.This research aims to identify the objective economic prerequisites for monetary integration in the framework of the EAEU. The general methodological basis of the thesis is the general scientific methods of knowledge used for the theoretical analysis of economic phenomena.

The authors use the general scientific principles of universalism, comprehensiveness, system, communication, development, as well as the fundamental principles of economic science in the field of international economic relations at the global and regional level.

Specialized theoretical and methodological prerequisites were the conceptual provisions on international economic integration, the interaction of the Eurasian region states and the development of the Eurasian Economic Union. The study was carried out using both general theoretical and private economic methods (the unity of historical, logical and statistical methods).

The study used two complementary approaches. The first approach is analytical. It is based on identifying the contradiction between the requirements for building an optimal integration system in the Eurasian region and the emerging practice of its formation. The second approach is prognostic. It is based on the premise that overcoming this contradiction is possible due to the sustainable and progressive development of the Eurasian Economic Union, taking into account the political and economic realities of our time.

The information and empirical base of the study was compiled by materials of international and state organizations: The Statistical Service of the Eurasian Economic Commission, the Eurasian Development Bank, the central banks of the EAEU member countries, statistical bulletins and analytical reviews of the Eurasian Economic Commission, monographic literature of domestic and foreign scientists, empirical and analytical materials, hosted on the Internet.

Results and Discussion. The deepening of regional economic integration forms the prerequisites for the formation and development of monetary integration. At the same time, the policy of most countries, aimed at accelerating the integration

processes, is due to the additional benefits from the formation of a single economic space. As it is known, R. Mandell, on the basis of the research, concluded that it is easier to withstand the "supply and demand shocks" within the framework of country associations that allow free movement of goods, labor and capital (Mundell, 1973: 114-132).

In the study of issues and problems of monetary integration within the framework of integration unions of states, the works of R. Mandell undoubtedly played an important role. He introduced the term "optimal currency area". This term is currently used to designate a geographic region in which the single currency is used as a means of payment, or national currencies with mutual fixation of exchange rates. In this case, in relation to the currencies of third countries, the regime of joint navigation is applied.

R. Mandell insisted that a fixed exchange rate regime, which would reduce currency risks and reduce costs associated with the conversion of national currencies, is necessary to increase the mobility of production factors. At the same time, the scientist defined the unrestricted movement across the state borders of goods, labor, and financial resources as the main criterion for the formation of the currency zone (Mundell, 1961: 657-665).

The identification of the prerequisites for the integration of the EAEU countries in the monetary sphere and the possibility of its formation in the form of a monetary union is based on the theory of optimal currency zones. In the framework of the traditional approach, the goal is to determine the economic basis, which allows to proceed to the development of monetary integration processes in the EAEU.

In our opinion, for the transition within the framework of the EAEU to the creation of mechanisms for monetary integration, it is necessary to take into account, first of all, the following two fundamental economic prerequisites:

– The intensity of mutual trade;

– The intensity of mutual investments.

The volume and intensity of mutual trade and mutual investment flows predetermine the significance of mutual monetary and financial flows, which in turn create or do not create the need for the development of monetary integration within the integration unions.

Considering the possibilities of the formation and development of integration in the monetary sphere within the EAEU, first of all it is necessary to dwell on the historical prerequisites for the creation of this integration association.

The most important historical prerequisite for economic cooperation of the Eurasian Economic

Union member states is their entry into the unified national economic complex of the USSR in the past. After the collapse of the Soviet Union and the transformation of the former republics into independent states, national economies were created with their own national currencies. Each of the new states was looking for new ways to develop their economies, going far beyond the limits of the former Soviet economic space. This, accordingly, led to the rupture of the existing economic interrelations and disintegration processes.

A number of attempts by the former Soviet republics to restore economic cooperation were expressed in the emergence of various projects and agreements to create new unions and associations. Some of them remained at the level of projects, agreements or unstable groups (Central Asian Union, Customs Union of Belarus, Kazakhstan and Russia, Common Economic Space of Belarus, Kazakhstan, Russia and Ukraine). Some unions as economic associations today exist largely formally (CIS). The EurAsEC created in 2000 and quite successfully manifested itself was abolished in 2015 and was formed as Eurasian Economic Union.

The main achievement of the integration processes intensification between the post-Soviet republics was the organization of the Customs Union (CU) of Russia, Belarus and Kazakhstan in 2010. Within the CU, a number of goals set for them were achieved: customs duties and payments were abolished in the mutual trade of the participating countries, quality assessment and certification methods were unified, a single customs space was created, and a single database on some economic activity aspects was organized. Also, on the entire territory of the CU, the citizens equal rights of the participating countries were ensured in employment.

The CU of the three states served as a serious economic basis for the creation of the EAEU. The agreement on its creation came into force on January 1, 2015. According to this agreement, within the territories of the EAEU member countries, freedom movement of goods, services, capital and labor, and a coordinated, unified policy in economic sectors are ensured. Within the framework of the EAEU, the Customs Union continues to be maintained, of which Armenia and Kyrgyzstan, which later joined the EAEU, are also participants. An important aspect of the Union's activities has become the system of centralized distribution of customs duties paid when crossing the borders of the Common Economic Space. In addition, the CU has a mechanism for coordinated collection and distribution of indirect taxes.

At present, the further development of the EAEU raises many questions, the solution of which requires addressing both the theoretical foundations of the regional integration development and the practice of its implementation within the integration union. The most important problem in Union member countries is integration deepening of the national economies.

In this vein, scientists and practitioners have repeatedly raised and continue to discuss the possibilities and prospects for the integration of the Union member countries in the monetary and financial sphere. At the same time, a lot of attention is paid not only to the analysis of existing trade, financial and investment flows, but also to the use of national currencies in international settlements. A number of scientific studies, publications and statements in the media are devoted to assessing the possibilities of currency integration, the creation of a monetary union within the EAEU and the introduction of a single supranational currency.

A study of the world's leading scientists' publications in the regional monetary integration development, scientific works of authors from the EAEU countries, agreements and treaties between the EAEU member countries led to the conclusion that, for the creation and development of monetary integration, certain economic prerequisites are necessary. In our opinion, these include the above-indicated level of mutual trade intensity and mutual investments intensity in the EAEU. An analysis of the current volume, the dynamics of mutual trade and investment flows development, and an assessment of the prospects for their growth allows us to draw conclusions about the possibilities for the development of monetary integration processes and the prospects for creating a currency union within the EAEU.

The intensity of mutual trade. Trade is a fundamental factor in creating and deepening economic integration. The increase in mutual trade accelerates the regional integration process of countries. Let`s analyze the volume of mutual trade of the countries participating in the EAEU (Table 1). At the end of 2011, mutual trade with the member countries of the Customs Union accounted for most of the Belarus – 46.4%, for the Kazakhstan it was 18.2% and for the Russian Federation only 7.5% of foreign trade turnover. The overwhelming majority of the foreign trade of these three countries accounted for trade with third countries. So, in the total volume of the Russian Federation foreign trade, this part was 92.5%, for Kazakhstan – 81.8%, and for Belarus – 53.6%.

Table 1 – Data on the share of mutual trade gross volumes in the total volume of foreign trade for the EAEU as a whole and for the EAEU member states separately for 2016 and 2018*

State	2016		2018	
	Share of trade with third countries	Share of mutual trade	Share of trade with third countries	Share of mutual trade
Armenia	-	-	70,4%	29,6%
Belarus	53,6%	46,4%	47,5%	52,5%
Kazakhstan	81,8%	18,2%	77,2%	22,8%
Kyrgyzstan	-	-	61,6%	38,4%
Russia	92,5%	7,5%	91,0%	9,0%
CU / EAEU	88,0%	12,0%	85,4%	14,6%

*Note: Compiled by the authors based on data provided in sources. (Eurasian Economic Commission, 2012: 13), (Eurasian Economic Commission, 2018: 3)

In 2017, compared with 2011, the share of mutual trade in the total volume of the EAEU foreign trade increased from 12.0% to 14.6%. The share of mutual trade in Belarus increased from 46.4% to 52.5%, in Kazakhstan from 18.2% to 22.8%, in the Russian Federation from 7.5% to 9%.

Consequently, according to the data for 2017, the Belarus is the most focused on the market of the Customs Union – 52.5% and Kyrgyzstan – 38.4%

In general, the share of mutual trade of the EAEU countries in 2017 amounted to 14.6%. Such a low figure is explained by the fact that Russia is the largest economy in the region, and the share of trade with third countries in this state is over 90%. The large size of the Russian economy does not allow it to direct the bulk of its foreign trade flows to the markets of its partner countries in the EAEU. The size of the other EAEU countries' economies is many times smaller than the Russian economy. So, in 2017, Russia's GDP, according to the Eurasian Economic Commission, amounted to 1,577.8 billion dollars US. Belarus's GDP is 54.4 billion dollars US or 3.4% of the Russian Federation's GDP, Kazakhstan – 159.4 billion dollars US (10.1%), Armenia – 11.5 billion dollars US (0.7%), Kyrgyzstan – 7.5 billion dollars US (0.4%) (Eurasian Economic Commission, 2018: 44).

An increase in the share of mutual trade can be called as a positive prerequisite. This result indicates that the EAEU member countries began to trade more among themselves. However, despite the growth over the past 10 years of the mutual trade indicator within the EAEU, the possibilities for its further growth in the near future are limited. The

reasons for this situation lie in a huge difference in the size of the economy and markets of Russia and other Union members. Also, own trade and other economic interests of all member countries are of great importance.

As it is known, trade flows generate currency flows, financial flows and settlement operations. If mutual trade within an integration union occupies less than 15%, as in the EEU, then, accordingly, it does not cause a strong need to regulate and facilitate monetary and financial flows and the development of monetary integration. The main part of the cash flows associated with foreign trade of the EAEU participants rushes beyond it. Transaction costs associated with their exchange of national currencies and lending of mutual trade are not so great as to seek to coordinate the exchange rates of national currencies and create a currency union.

By analyzing the structure and geography of exports and imports of the EAEU countries, we can make the following conclusions: firstly, the prevalence of raw materials is observed in foreign exports, while imports are saturated with end-use products; secondly, at present, the participating countries need markets outside the EAEU, as well as the procurement of high-tech goods, the production of which in the framework of the union is yet to be established. Dependence on external sales markets, as well as on the supply of products from third countries, not only does not contribute to the deepening of integration, but can have a restraining effect on the development of economic ties within the Eurasian Union.

The intensity of mutual investments. Let us analyze the foreign investment flows in the EAEU, including the volume of investments received in the countries from the Union member states and retired in the opposite direction, including foreign direct investment (FDI) − Table 2:

Table 2 – Foreign investments in the EAEU countries, for 2013-2017, million USD*

State	Year							
	2014		**2015**		**2016**		**2017**	
	FDI	**Including from EAEU**	**FDI**	**Including from EAEU**	**FDI**	**Including from EAEU**	**FDI**	**Including from EAEU**
Armenia	403,9	108,5	178,3	185,6	338,1	90,9	249,8	0,9
Belarus	1 862,0	618,0	1 652,3	736,8	1 246,9	543,8	1 276,4	462,7
Kazakhstan	7 224,6	525,3	6 379,4	191,3	16 900,7	287,2	4 654,2	492,9
Kyrgyzstan	348,0	48,4	1 141,7	512,5	615,9	279,5	107,2	78,1
Russia	22 031,3	459,5	6 853,0	513,1	32 538,9	414,3	28 557,5	91,3

*Note: Compiled by the author based on the data provided in the source (Eurasian Economic Commission, 2017: 11-13).

For a more accurate study of the capital mobility within the community consider the proportion of foreign investment from the EEU countries.

From the second table data it can be seen that, as in the foreign trade of the EAEU countries, the overwhelming majority of investment flows falls on countries outside the EAEU. Mutual investment flows in their size are many times smaller than flows from other countries.

In Belarus the largest investments from non-community countries are investments from Germany, directed to the mining industry, and from France, attracted to the alcohol industry and telecommunications.

For the Kyrgyz Republic, attracting foreign investment is a priority for the country's macroeconomic development. The main volume of investments in Kyrgyzstan comes from the EEU countries, about 45%.

The Russian Federation and the Republic of Kazakhstan have an insignificant share of foreign investments from the EEU countries. These countries are investing more in community countries than accepting.

Mutual investment flows are largely dependent on the GDP of each integration union country. Usually the volume of investment from large countries is greater. Therefore, for Russia and Kazakhstan, the significance of investments from other EAEU countries is low. These countries mainly receive investments from other countries of the world, mainly from the European Union and USA (table 3).

Table 3 – Direct investment flows by country for 2017*

State	FDI	Including from EAEU	Including from CIS	Including from another countries
Kazakhstan	4 654,2	492,9	4,7	4 156,6
Russia	28 557,5	91,3	7,1	28 459,1

*Note: Compiled by the author on the basis of data presented in source (Eurasian Economic Commission, 2017: 11-13).

About 88-89% of investment flows go to Kazakhstan from other countries of the world, and 99% in Russia. Such high rates are explained by the fact that the economies of these countries are larger than others.

The distribution of mutual investments in the EAEU countries by industry provides an opportunity to assess the degree of interpenetration of capital within individual industries. More than 40% of mutual FDI of the studied countries falls on the fuel and energy complex. A significant share in mutual investments belongs to such industries as: non-ferrous metallurgy (about 12%), transport (approximately 9%), communications and information technology (8%). The shares of the agri-food complex and the financial sector are also significant: these industries account for 6% of the total mutual FDI.

At the same time, the sectoral focus of the EAEU countries investments differs significantly. Thus, more than 50% of Russia's accumulated direct investment was directed to the fuel and energy complex, 13% to the non-ferrous metallurgy sector, 9% to the communications and information technologies sector. About 6% is in the financial sector, the same amount in transport.

The sectoral structure of the accumulated FDI of Belarus includes the fuel complex (more than 45%), machine building (23%), the agri-food sector (22%), transport (8%) and only slightly finance (about 1%).

The main share of external accumulated in the EAEU FDI of Kazakhstan accounts for agriculture and food (33%), transport (over 20%), tourism (approximately 17%), non-ferrous metallurgy (6%) and the chemical sector (6%).

Most of Armenia's and Kyrgyz's investments in the EAEU have been invested in the agro-industrial complex (Kuznetsov, Kvashnin, Sidorova, 2016: 68).

The increase in the share of mutual direct investments, as well as their sectoral structure in the EAEU member countries, confirm the interest of entrepreneurs in investing funds in certain sectors of the economy in order to expand business in the entire union. In addition, investments in the real sector stimulate economic growth, which has now acquired special significance for all EAEU countries.

An organization such as the Eurasian Development Bank (EDB) also contributes to the movement of capital on the EAEU territory. The EDB manages the funds of the Eurasian Foundation for Stabilization and Development (EFSD). Financial loans are the main form of providing resources to the fund, they are allocated only to the governments of the participating States. With the help of financial loans, anti-crisis programs are supported, the specific parameters of which are determined by the government of the borrowing country itself. Such programs should meet the goals of the EFSD and include measures to achieve macroeconomic stability, improve budget parameters, balance of payments, entrepreneurial climate, and develop financial and economic cooperation between the participating states.

The fund's investment loans are allocated primarily to support large investment projects that are integrative in nature, for example, in the field of energy and infrastructure. Also, loans can be directed to support large national investment projects, they can be attracted both by the states themselves and by companies implementing interstate investment projects.

Conclusion. At the moment, the economic prerequisites for monetary and financial integration have not been created yet in the EAEU. There are problems in the economic integration development level of the participating countries, assessed by the intensity of mutual trade and investment flows. The share of mutual trade in the total volume of foreign trade in the EAEU is only 14.6% – this is a very low result. Also, there are no basic prerequisites for financial integration due to low rates of mutual investments. The problem is also in the direction of investments, the main investment flows are directed to the mining industry and metallurgy.

It should be noted that the EAEU has extensive programs that including international experience in solving the tasks of ensuring free movement of capital, organizing information exchange, regulating and developing the foreign exchange market, creating and implementing monetary policy, etc. But these tasks do not imply the creation of a single currency, they only contain landmarks that allow to take the first step to a currency union. Until the formation of a single financial market in 2025, the Eurasian Economic Commission does not see the point in switching to a single currency.

At the moment, the EAEU member countries should study and use the experience of using currency, settlement and payment mechanisms of other integration associations. Only after creating a reliable economic platform they can move on to the stage of forming a single currency area and the transition to a currency union.

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REGULATION OF THE DIGITAL ECONOMY

Abstract.The digital economy is becoming an important driver of innovation, economic growth and competitiveness. More than 15 countries are implementing a national programme of digitization. The formation and development of the national segment of the digital economy through the use of trusted, mainly domestic ICT, and its further integration into the global digital economy, on the one hand, provides a "window of opportunity" for the integration of the economy of the Republic of Kazakhstan in the emerging world economic order, and on the other hand – carries significant risks to economic security and sovereignty of the state. The purpose of the study is to analyze the current state and develop effective measures to regulate the digital economy to achieve sustainable economic growth, improve the competitiveness of the economy and improve the quality of life of the population of the Republic of Kazakhstan. The introduction of information technologies in the public sector brings to a qualitatively new level key aspects of life – from payment for utilities to insurance policies and treatment. The methodology is based on methods of analysis, synthesis, induction and deduction. The value of the research is that the model of digital economy development is defined. The practical significance of the study lies in the development of proposals to improve the regulation of the digital economy in the Republic of Kazakhstan.

Key words: digital economy, digital dividends, digital state, single digital market, online sales, development of electronic networks and digital services.

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Цифрлық экономиканы реттеу

Аңдатпа. Сандық экономика инновациялардың, экономикалық өсудің және бәсекеге қабілеттілікті қамтамасыз етудің маңызды драйверіне айналады. Әлемнің 15-тен астам елі цифрландыру Ұлттық бағдарламаларын жүзеге асырады. Сенім білдірілген, басым түрде отандық АКТ-ны пайдалану негізінде цифрлық экономиканың ұлттық сегментін қалыптастыру және дамыту және оның әлемдік цифрлық экономика кеңістігіне одан әрі кірігуі, бір жағынан, қалыптасқан әлемдік экономикалық тәртіпке Қазақстан Республикасының экономикасын енгізу үшін «мүмкіндіктер терезесін» ұсынады, ал екінші жағынан, экономикалық қауіпсіздік пен мемлекет егемендігінің Елеулі тәуекелдерін көтереді. Зерттеудің мақсаты – тұрақты экономикалық өсуге қол жеткізу, экономиканың бәсекеге қабілеттілігін арттыру және Қазақстан Республикасы халқының өмір сүру сапасын жақсарту үшін қазіргі заманғы жағдайды талдау және сандық экономиканы реттеудің тиімді шараларын әзірлеу. Мемлекеттік секторда ақпараттық технологияларды енгізу коммуналдық қызметтерді төлеуден бастап сақтандыру полистерін рәсімдеуге және емдеуге дейінгі халық өмірінің негізгі аспектілерін сапалы жаңа деңгейге шығарады. Әдістеме талдау, синтез, индукция және дедукция әдістеріне негізделген. Зерттеудің құндылығы-сандық экономиканың даму моделі. Зерттеудің практикалық маңыздылығы Қазақстан Республикасында цифрлық экономиканы реттеуді жетілдіру бойынша ұсыныстарды әзірлеу болып табылады.

Түйін сөздер: сандық экономика, сандық дивидендтер, сандық мемлекет, бірыңғай сандық нарық, онлайн сату, электрондық желілер мен сандық қызметтерді дамыту.

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Регулирование цифровой экономики

Аннотация. Цифровая экономика становится важнейшим драйвером инноваций, экономического роста и обеспечения конкурентоспособности. Более 15 стран мира реализуют национальные программы цифровизации. Формирование и развитие национального сегмента цифровой экономики на основе использования доверенных, преимущественно отечественных ИКТ и его дальнейшая интеграция в пространство мировой цифро-

вой экономики, с одной стороны, предоставляет «окно возможностей» для встраивания экономики Республики Казахстан в формирующийся мировой экономический порядок, а с другой стороны – несет значительные риски экономической безопасности и суверенитету государства. Цель исследования – анализ современного состояния и разработка эффективных мер регулирования цифровой экономики для достижения устойчивого экономического роста, повышения конкурентоспособности экономики и улучшения качества жизни населения Республики Казахстан. Внедрение информационных технологий в государственном секторе выводит на качественно новый уровень ключевые аспекты жизни населения – от оплаты коммунальных услуг до оформления страховых полисов и лечения. Методология основана на методах анализа, синтеза, индукции и дедукции. Ценность исследования заключается в том, что определена модель развития цифровой экономики. Практическая значимость исследования заключается в разработке предложений по совершенствованию регулирования цифровой экономики в Республике Казахстан.

Ключевые слова: цифровая экономика, цифровые дивиденды, цифровое государство, единый цифровой рынок, продажи онлайн, развитие электронных сетей и цифровых услуг.

Introduction. The rapid decline in computing costs, the emergence of the Internet as a communication tool, the rapid development of the mobile internet, the proliferation of day-to-day applications, and the increasing role of internet-based social networks and commercial platforms, have greatly affected the functioning of the economy and have profoundly affected businesses, public organisations, and personal life.

Emerging digital technologies such as the Internet of Things, artificial intelligence, and Big Data, will lead to further disruptive innovation, and create new opportunities and challenges.

Digitalisation has brought many benefits to consumers and businesses, but it has also generated new problems and policy issues. Policy makers are struggling to respond to these new challenges.

AI Watch will monitor and assess European AI landscapes from driving forces to technology developments, from research to market, from data ecosystems to applications.

AI Watch will monitor the implementation of the Coordinated Plan including strategies and investment.

From these in-depth analyses, we will be able to understand better Europe's areas of strength and areas where investment is needed to boost AI in in Europe.

AI has a wide range of potential economic and social implications including new forms of economy and governance. AI Watch will provide an independent assessment of the impacts and benefits of AI on growth, jobs, education, and society.

Digitalisation makes information and knowledge easy to store, access and modify. Digital technologies create a media and communications system that increasingly links all parts of social and economic life.

This, and the interactivity between the user and the content, facilitates the proliferation of creative re-combinations of knowledge and technologies.

The JRC is investigating the processes in which digital innovation and entrepreneurial activity take place and what framework conditions facilitate them, including the role of Intellectual Property Rights and standardisation of complex and interdependent technologies.

Sharing information on environmental and social phenomena is at the heart of Digital Economy. To do so we need a framework of technologies, standards, organisational arrangements and policies that makes it possible to find, access, use, share, and publish such information, in other words we need an information infrastructure, or to be more precise we need to connect the multiple information infrastructures being developed across the world.

In modern economic conditions in many countries, the digitalization of the economy is a strategic priority of development. According to the forecasts of the world's leading experts, by 2020 a quarter of the world economy will be digital, and the introduction of technologies of digitalization of the economy, allowing the state, business and society to interact effectively, is becoming an increasingly large-scale and dynamic process (Digital Kazakhstan, 2018). Singapore forms the "Smart economy", Canada creates an ICT-hub in Toronto, South Korea in the "Creative economy" focuses on the development of human capital, entrepreneurship and the spread of ICT, while Denmark focuses on the digitalization of the public sector.

Currently, the attention of the Government of the Republic of Kazakhstan and society to digitalization as a global trend, including the expectations of the socio-economic effect of their implementation, are significant. And this level, first of all, is set by the scale and specifics adopted by the President of Kazakhstan N. Ah. Nazarbayev plan of the nation "100 concrete steps" (plan of the Nation -100 concrete steps).

In particular, one of the" 100 steps "is the creation of the state Corporation" Government for citizens " – a single provider of public services on the model of Canada Service in Canada and Centrelink in Australia (National Plan -100 concrete steps).

As part of the current reforms, Kazakhstan is focused on countries that have achieved significant success in creating a digital state. As you know, it is Austria, USA, Denmark, Australia, Canada, Singapore. According to the level of digitalization of the economy in 2016, Kazakhstan took the 50th place in the ranking of 85 countries and was in the group with the emerging digital economy (Third modernization: global competitiveness, 2017).

In the message of the President of the Republic of Kazakhstan to the people of Kazakhstan "the Third modernization of Kazakhstan: global competitiveness" dated January 31, 2017, it is noted that it is necessary to develop in the country such promising industries as 3D printing, online trading, mobile banking, digital services, including health and education, and others. These industries have already changed the structure of the economy of developed countries and gave a new quality to traditional industries (Tulegenova M. S., Syzdyk N. S. 2017, 12).

In connection with these aspects, The state program "Digital Kazakhstan" was developed (Digital Kazakhstan, 2017). The basis for its development was the decree Of the President of the Republic of Kazakhstan dated February 1, 2010 № 922 "on the Strategic development plan of the Republic of Kazakhstan until 2020" (on the strategic development plan of the Republic of Kazakhstan, 2010).

The Foundation of the program "Digital Kazakhstan" was the state program "Information Kazakhstan-2020", approved in 2013 (Information Kazakhstan-2020). In The Message Of The President Of Kazakhstan N. Ah. Nazarbayev "growth of welfare of Kazakhs: increase of income and quality of life" from October 5, 2018.it is noted that it is necessary to ensure the development of such areas of the "economy of the future" as alternative energy, new materials, Biomedicine, big data Internet of things, artificial intelligence, blockchain and others. The place and role of the country in the global world depend on them in the future (growth of welfare of Kazakhstan Citizens: increase of income and quality of life, 2018). The world Bank names three important categories of problems that are signs of the possibility of digital transformation: legal regulation, the availability of skills in the population and the creation of appropriate institutions of digital

governance (the Digital economy has transformed, transformed 2018). Therefore, in order to transform the economy into a digital one, it is necessary to create an appropriate regulatory framework for e-business, reform the education system and involve citizens in the management of the state through e-services, transparency and control over budget spending. Such well-known foreign scientists as: M. Bahl, D. Charoen, C. Granasambandam, M. Knickrehm, R. Kling, K. Lamb, L. Margherio, L. Lane, T.L. Mesenbourg, M. Rouse, A. Tapscot.

Literature review. Research of the main trends of the digital economy dedicated to the works by I. V. Alekseeva, A. S. Airapetian, A. Bryan, A. P., Dobrynin, A. V. Druzhinin, K. A. Zhumagaliev, V. Ivanov, V. Yu. Konyukhov, D. Marchukova, V. P. Kuprianov, I. A. Matveeva, E. V. Popova, K. A. Seed, N.. Stefanova, D. V. Sikorski, D. A. Smirnova, I. M. Tushkanova, A. Rusina, L. Yu., Chernykh, A. A. Kharchenko and T. N. Yudina.

In the Republic of Kazakhstan, the problem of formation and development of the digital economy, Internet marketing, the information sector of the economy were engaged in such scientists as A. A. Ashimov, Dnishev F. M., A. K. Koshanov, G. M. Mutanov, B. M. Mukhamediev, N. To. Theoretical and practical issues], K. A. Sagadiyev, M. S. Tulegenova A. G., and Ploshay.

Despite the scientific contribution of scientists to the theory and practice of the formation and development of the digital economy, there are issues that require further study, in particular, requires clarification of the regulation of the digital economy.

The relevance, great demand, and not the study of the main trends in the development of the digital economy in the future predetermined the choice of topics and main areas of research.

Material and Methods. The research methodology is based on a comprehensive analysis of the problem. The state can provide a "digital leap" in the country through the accelerated development of specific technologies. In such cases, the state assumes the role of an investor, determining the key, the most promising areas of financing, based on the assessment of long-term return on investment, competitive position, trends, as well as invested in the fundamental conditions of success, such as education and retraining. In South Korea, with the active position of the state, support companies are beginning to independently invest in breakthrough digital technologies.

Thus, one of the largest Telecom operators in the country-SKT − has indicated its intention to

invest more than 4 billion US dollars in artificial intelligence and Internet of things technologies. Table 1 shows what tasks and goals should be set by the state and companies in order to achieve good results in the implementation of digitalization in the country (Tabl. 1):

Table 1 – Challenges faced by the state and companies for the introduction of the digital economy in Kazakhstan*

Companies	State
Introduction of new technologies, improvement and digitalization of production processes	Improvement and digitalization of production processes
Search for new personnel, cooperation with educational and research centers	Introduction of new approaches to learning, improvement of educational processes
Investment in new technologies, choice of advanced areas	Increasing investment in NIOC
Increase of competitiveness, development of innovative culture on the model of the world's highly developed digital companies	Preparation of the base for mass retraining of personnel, due to the disappearance of many professions and the emergence of new professions and jobs
	Improvement of the innovation processes and good management on the part of the state. Digitalization of public services, increasing literacy and universal involvement of the population in the digital economy
*Note: developed by the author	

The digital economy in developed countries develops in different ways, but they have important common features: an enabling environment for development and innovation, as well as large investments in digital technology and infrastructure. Kazakhstan has great opportunities to make technological leaps in all sectors of the economy. For the successful functioning of the digital economy in the country is necessary: the development of infrastructure with Internet access, using telecommunications, as well as e-business and Commerce. In accordance with the main directions of administrative reform, the priorities of the use of information technology in public administration are:

1) improving the effectiveness of the implementation of the law establishing the functions of the state and improving the mechanisms of state regulation.

2) improving the efficiency of law enforcement activities of public authorities.

3) improving the efficiency of control and Supervisory functions (Stefanova N. A, 2018 -122).

The legal framework for the regulation of the Kazakhstan market should take better account of the specifics of the relations developing in it. Therefore, it is important to take into account in the legislative form the degree and form of assistance of state employment agencies, both participants in the labor market: the employer and the unemployed. In this regard, it is effective, first of all, to provide financial support to entrepreneurs who create additional jobs for the unemployed, through the competent employment authorities. The need for the regulatory role of the state in restructuring the social development of organizations, taking into account the growing tension in the domestic labor markets, becomes obvious, which is confirmed by the special attention of the state to solving social problems.

In this regard, we believe that it should:

− develop a strategy for regulating the digital economy in accordance with the chosen model of development of the Republic of Kazakhstan and its regional features;

− develop a package of legislative acts, providing them with temporary housing and health services, social insurance.

Research result. The greatest difficulty is the issue of regulation of innovative processes is the fact that technology is evolving faster than the legislation. The Law "on digital economy in the Republic of Kazakhstan" is proposed (figure 1). Solutions can have a counter − effect: for example, increased control over information can affect the development

of the Internet, and support for a particular format of digital communications-lead to the consolidation of one business model, while creating obstacles to the emergence of new ones.

Results and Discussion. Strengthening the system of state control over the procedures of the digital economy involves monitoring for possible insolvency of the activities of not only economically and socially important enterprises. We consider it necessary to expand the coverage of enterprises. In addition, the implementation of state control and monitoring should cover more extensive crisis management infrastructure. The formation of the development model is the key to sustainable development of the company. To understand the structure of the classical economic model, it is necessary to consider the main subjects and mechanisms of economic interaction (Fig. 1):
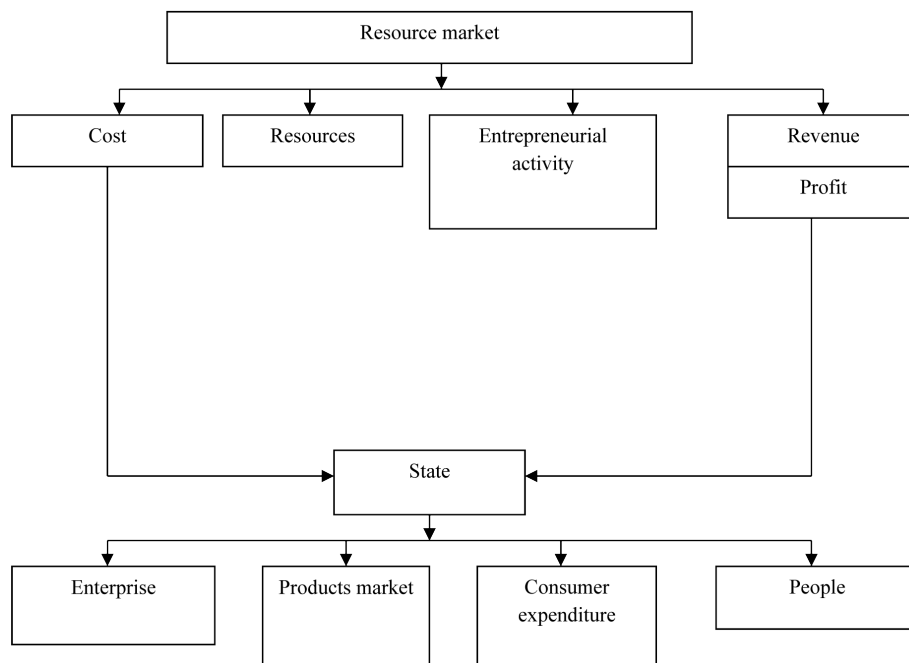
Figure 1. Economic model
*Note: according to literature 2, 3

In the national economy there are three entities: the population (households), enterprises, and the state. Each of the economic entities under consideration has a number of specific features that carry out many activities. The main creative element of economic turnover are enterprises (firms) that produce the necessary products and services for society (households). The activities of firms aimed at making a profit. For the products sold, firms receive an appropriate monetary equivalent, in addition, they are the state's preddacha consists in the production of public goods, i.e. goods that are produced in the interests of the whole society. These include security, social protection, the development of science and culture, and the formation of social infrastructure. The activity of the state does not pursue the purpose of profit and is aimed at the realization of national interests. Most authors who write about the economic model try to compare it with the economic models of other countries, the same level of development in different ways and methods (in the competitiveness index Kazakhstan took 59th place, 2018).

The digital economy is characterized by many indicators, in particular the index of economic freedom is calculated on the average of ten benchmarks: property rights, freedom from corruption, fiscal freedom, government participation, freedom of enterprise, labor, trade, investment, monetary freedom, and financial freedom. In terms of the index, the Republic of Kazakhstan ranks 153rd out of 178 possible places from the countries represented in the ranking by methods (in the competitiveness index Kazakhstan took 59th place, 2018). In countries with freer economies, the welfare of the

population is much higher, with economic freedom yielding relatively quick and tangible results, in contrast to the total state regulation of the economy, which prevails (Ranking of the world's countries by the level of economic freedom, 2017). Countries that pursue policies of economic freedom create favorable conditions for trade, entrepreneurship and innovation that generate economic growth. The index of economic freedom is primarily based on the degree of economic liberalism, covering macroeconomic indicators such as growth rates, degree of technological modernization, the level of development of infrastructure and that it innovation is important.

The conclusions emphasize the importance of the state of economic freedom, and therefore the economic model as a whole for the population. In" free " countries, it innovations are also more developed. Such countries have higher national income (the most developed countries in the field of IT technologies are Named, 2018). The policy of economic freedom creates favorable conditions for the development of the it industry, which is considered to be the fastest growing industry in many countries of the world (Top 10 countries with advanced technologies, 2018). Thanks to digital telecommunications, which include modern digital innovations, a model of the digital economy is often called the digital future (nnemtsov, 2017-320). The analysis of the economic situation, the rating of economic freedom, in the lists of which is not the best result, showed that the economy of the Republic of Kazakhstan must move from the existing model, which is used to the population, to the new digital economy of the future. Thus, the model of development of the digital economy should be implemented through digital telecommunications, which include modern innovations such as cloud computing, business Analytics, big data and much more. The main resource of the digital economy is information that does not dry up like other types of resources, it can be used an infinite number of times. The Internet is a global global network in which the area of use of resources is not limited, as well as storage thanks to cloud technologies. Today, all companies strive for digital trends, thanks to which there is a profit. And digital trends, in turn, contribute to the simplification of the population's life, and improve the state of the economy in the country. Currently, the desire of transition to a digital economy has engulfed all spheres of life: education, online sales, health care, etc. For example, create server public services, made a significant step forward for simplification

of life of the population. The accumulation of a large amount of information on the Internet has led to the need to store it somewhere and this has contributed to the emergence of new technologies such as big data and business Analytics. Big data or big data is applicable in many areas such as medicine and even in the field of education, where the need to store a large amount of information is at the forefront. Business Analytics, in turn, is applicable in any areas where the company is faced with a constant flow of business information. These areas are one of the key drivers of information technology development. Thus, the presented model of development of the digital economy orients the company in accordance with the goals for effective work both in the short and long term. In this model, the main attention is paid to the adaptive response to the emergence of possible adverse situations. The very appearance of these situations is predicted, and measures to neutralize them are developed in advance. The application of this model of development of the digital economy will enhance the quality of ongoing monitoring of the market, the performance of planning of its development and the effectiveness of regulatory measures.

Conclusion. The essence of the digital economy lies in the fact that thanks to the development of digital technologies, the consumer can quickly get the services he needs, save money by buying products in online stores at lower prices. The core of the digital economy is the digital goods and services sector.

The growing role of the digital economy is that the digital economy is the basis of development in General and has an impact on a variety of industries such as banking, retail, transport, energy, education, health and many others. Currently, a number of factors affecting the development of the digital economy can be identified. Internal factors are managerial. External factors – infrastructure and General economic.

For the growth of the digital economy it is necessary to develop the national it sector, to stimulate the creation of innovative technologies, to cooperate with foreign market actors for their development. It is necessary to attract investment and motivation of entrepreneurial activity in this industry.All strata of society – the state, the private sector, civil society and the it community-must participate in digital economic activities. Ensuring information security of information and innovative technologies is also an important component. The regulation of the digital economy needs to

be improved. The greatest difficulty is the issue of regulation of innovative processes is the fact that technology is evolving faster than industrial

relations. At the same time, a draft Law "on the development of the digital economy in the Republic of Kazakhstan"is proposed.

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ANALYSIS OF BUSINESS MODELS

Abstract. The term "business model" has been used in practice for several years, but companies create, define and implement their models subconsciously from the very beginning of the business. The article discusses the concept of a business model and the main approaches to its understanding. A systematic presentation and analysis of the business model of the enterprise, the influence of classifiers on the implementation of the life of the company. It is shown that the analysis of the relationships between the main elements of the business model allows us to identify problems of co mpliance and sustainability of the business model. The most general scheme for a systematic description of a business model can be its representation through system elements. The value of the study lies in the fact that a model for the use of a business model is defined. The practical significance of the study is to create an analytical tool and analysis of a real business model, and the characteristics of each part of the business model, that is, customers, distribution, cost, resources, activities, costs and revenues are determined. The value chain is one of the central concepts of strategic management, which was first presented in the works of M. Porter. As you know, the value for the consumer is created in the company as a result of two types of activities (main and auxiliary). The conclusion discusses the most commonly used characteristics, extremes, inconsistencies and the most important facts that were found in the study.

Key words: business, model, economy, enterprise, analysis, sales income, efficiency, asset management, net profit, capital.

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Бизнес модельдерді талдау

Аңдатпа. «Бизнес-модель» термині іс жүзінде бірнеше жылдан бері қолданылады, бірақ компания-лар өз модельдерін бизнес басталғаннан бастап жасайды, анықтайды және енгізеді. Мақалада бизнес-модель тұжырымдамасы және оны түсінудің негізгі тәсілдері қарастырылады. Кәсіпорынның бизнес-моделін жүйелі ұсыну және талдау, фирманың тіршілік әрекетін жүзеге асыруға классификаторлардың әсері әзірленді. Бизнес-модельдің негізгі элементтері арасындағы өзара байланысты талдау, бизнес-модельдің сәйкестігі мен тұрақтылығы мәселелерін анықтауға мүмкіндік береді. Бизнес-модельді жүйелік сипаттау үшін ең жалпы сыз-ба, оны жүйелік элементтер арқылы ұсыну болып табылады. Зерттеудің құндылығы бизнес-модельді орындау моделі анықталды. Зерттеудің практикалық маңыздылығы аналитикалық құралды құру және нақты бизнес-модельді талдау және бизнес-модельдің әрбір бөлігінің, яғни клиенттердің сипаттамалары, бөлу, құны, ресурс-тары, қызметі, шығындары мен кірістері болып табылады. Құндылықты құру тізбегі стратегиялық басқарудың орталық тұжырымдамаларының бірі. Сондықтан, тұтынушы үшін құндылық компанияда қызметтің екі түрі (негізгі және қосалқы) нәтижесінде пайда болады. Қорытындыда зерттеуде табылған ең жиі қолданылатын сипаттамалар, шектен шығу, сәйкессіздік және ең маңызды фактілер талқыланды.

Түйін сөздер: бизнес, модель, экономика, кәсіпорын, талдау, сатудан түскен кірістер, тиімділік, активтерді басқару, таза пайда, капитал.

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Анализ бизнес-моделей

Аннотация. Термин «бизнес-модель» используется на практике уже несколько лет, но компании создают, определяют и внедряют свои модели подсознательно с самого начала бизнеса. В статье рассматривается кон-

цепция бизнес-модели и основные подходы к ее пониманию. Разработано системное представление и анализ бизнес-модели предприятия, влияние классификаторов на осуществление жизнедеятельности фирмы. Показано, что анализ взаимосвязей между основными элементами бизнес-модели позволяет выявлять проблемы соответствия и устойчивости бизнес-модели. Наиболее общей схемой для системного описания бизнес-модели может служить ее представление через системные элементы. Ценность исследования заключается в том, что определена модель использования бизнес-модели. Практическая значимость исследования заключается в создании аналитического инструмента и анализе реальных бизнес-модели, в определении характеристики каждой части бизнес-модели, т. е. клиентов, распределение, стоимость, ресурсы, деятельность, затраты и доходы. Цепочка создания ценности является одной из центральных концепций стратегического управления, которая впервые представлена в работах М. Портера. Как известно, ценность для потребителя создается в компании в результате двух видов деятельности (основной и вспомогательной). В заключении обсуждается наиболее часто используемые характеристики, крайности, несоответствия и наиболее важные факты, которые были обнаружены в исследовании.

Ключевые слова: бизнес, модель, экономика, предприятие, анализ, доходы от реализации, эффективность, управление активами, чистая прибыль, капитал.

Introduction. Modern ideas about the business model are based on four of its elements: what (proposed value), who (target consumers), how (mechanism for creating and offering value to the consumer) and why (mechanism for extracting and assigning income from the sale of value to the consumer). The strategic and operational models that reflect the nature of the decisions made by the company are highlighted. Within the framework of the first, elements such as: value proposition, consumer segments, key resources, key activities are derived. In the framework of the second, an operational model is derived: logistics, marketing support for activities and sources of commercial effect. A schematic diagram of a business model through the prism of the concept of social entrepreneurship in the context of target groups has been developed. This approach combines the simplest model scheme, consisting of 4 elements, and an inclusive approach to social entrepreneurship, reflecting the role of target groups in the model. The authors noted that the peculiarity of constructing business models in social entrepreneurship is that the theory of social impact is the basis of any model. This concept puts the creation of a social effect at the center of any organization and considers it to be a value equal to the economically created value. Since the 1990s , the term "business model" has been steadily present in scientific research on the corporate sector of the economy, which has not been filled with a single empirical content for a long time, but rather has the character of generalizing the company's main market idea and its strategy. The business model most often refers to innovations related to a technology, product or business process, since the innovative potential of a company has long been expressed precisely in a product, technology or process, and these elements of a business idea were in focus. In a certain sense, this is the case now. Logically, the category of a business model is associated with such concepts as corporate strategy, business process and value chain. Combining these concepts in a single logic, we can say that a corporate strategy determines its empirical projection or business model, which is a business process for creating a value chain.

Literature review. Many authors note that the term "business model" was widely used after 1995. Moreover, they divide the period of the emergence of business models into three stages. The first stage is seen as the stage that accompanies a sharp change in business culture towards the digital economy. At the second stage, relations are established between the concepts of "business model" and "strategy", "business model" and "productivity", "business model" and "innovation, opportunities and resources". And finally, the third stage is characterized by a high growth of competition among enterprises.

According to Zott and Amit, the business model has become popular amid the growth of the Internet. People understand that in the framework of globalization, accelerating technological changes, the business environment is more uncertain, while business models in the enterprise are the most important success factor. A business model of innovation can bring a strategic competitive advantage; an enterprise should be able to develop in the new economic environment. An innovative business model is considered a new management template and has many valuable innovative technologies, which makes the company competitive.

Da Silva and Trkman note that the term has not been widely used for several decades. There were few peer-reviewed journal articles on the topic of "business model" (about five) until the 1990s. With the development of information and communication technologies (ICT) and the advent of Internet companies, the term quickly gained fame not only among practitioners, but also among business scientists. The authors acknowledge that during

this period, terminology has spread across various communities, such as marketing, management, banking, and ICT, and is used in various contexts such as a business plan, business strategy, value creation, globalization, and design organization.

Onetti with co-authors concluded that the growing interest in business models coincided with the advent of e-business in the mid-1990s. At that time, many new young businesses began to develop Internet offers. Rapid technological changes in this new business era have led to dramatic changes in competitive approaches in many industries. Johnson and his colleagues noted a growing interest in the business model in 2008 (Afuan H 2003:38). This interest has become more intense than in recent years. The authors note that the relevance of business models has increased thanks to Internet technologies, without which it is currently impossible to imagine business development. Chesbrough suggests that the right use of advanced technology and other driving forces can completely replace innovation: "Mediocre technologies implemented in a big business can be more valuable than creating innovations . "Scientists are exploring various aspects of new business models − from how companies operate due to changes in the supply chain structure, to advertising and sponsorship receipts from other firms.Voelpel, Leibold and Tekie note that business models have evolved with the advent of:

− information technology with the ability to process large amounts of data;

− a virtual space in which more and more economic transactions are taking place;

− increase the return on knowledge and intellectual (intangible) assets;

− Innovation as the main resource for creating value.

Material and Methods. The term business model comes from financial journalist Michael Lewis, who in his articles predicted that future companies will be based on business models that are only related to the Internet. Business models on the Internet are both simple and complex. A simple model is the concept of an online retailer − a company purchases goods and uses online channels to sell them and increase business awareness. According to a more complex model, large information portals work − they see many options for monetization (starting with the sale of advertising inventory, ending with writing custom materials), which requires an analysis of the sources of profit and their optimization in order to increase revenue.

In the current period of time, it can be stated that for online commerce not only unique business concepts

were created, but also traditional ones were effectively optimized. Take, for example, an auction − one of the oldest forms of brokerage has been significantly improved due to many marketing concepts, the simplest of which are the principle of urgency and the effect of limitedness. As a result, marketers managed to create an effective, gamified system that engages consumers in the bidding process and increases their readiness for high costs.

One of the most popular online auctions is eBid − more than 3 605 100 products with a total value of more than $ 2 640 499 271 are placed on the site.

A more modern model that has developed over the past 16 years is SaaS (Software as a Service, software as a service) − the sale and use of a software solution in which the provider develops and optimizes the cloud application, providing the customer access to it via the Internet.

David Teece believes that "the business model still does not have a clear theoretical foundation in the economy . " It is very difficult to distinguish those processes and components that are necessary for the business and would determine the creation of value in the company comprehensively and fundamentally. Some authors define a business model as a system of making money. In their opinion, a business model is an economic concept that " generates " income and expenses. This is a set of activities that create profit through the interaction of processes and technologies. Definitions of authors considering a business model as an economic concept are presented in SmartArt 1 – Picture 1:

A purely economic view of the business model does not constitute a complex view of the company.

The business model should (with the exception of production income and costs) cover the other side of the business, and it creates value. Below are the opinions that view the business model as a combination of an economic and value outlook.

David Watson − "The business model describes the company's activities, including all its components, functions and processes, which lead to costs for itself and cost to the client. "

David J. Teece − "A business model defines how a company delivers value to a customer and translates payments into profits . "

Joan Magretta − "Business models are, in essence, stories that explain how enterprises work. Like a good story, a robust business model contains well-defined characters, plausible motives, and a plot that includes an understanding of value. He answers certain questions: Who is the customer? How do we make money? What basic economic logic explains how we can deliver value to customers at the right price? " .
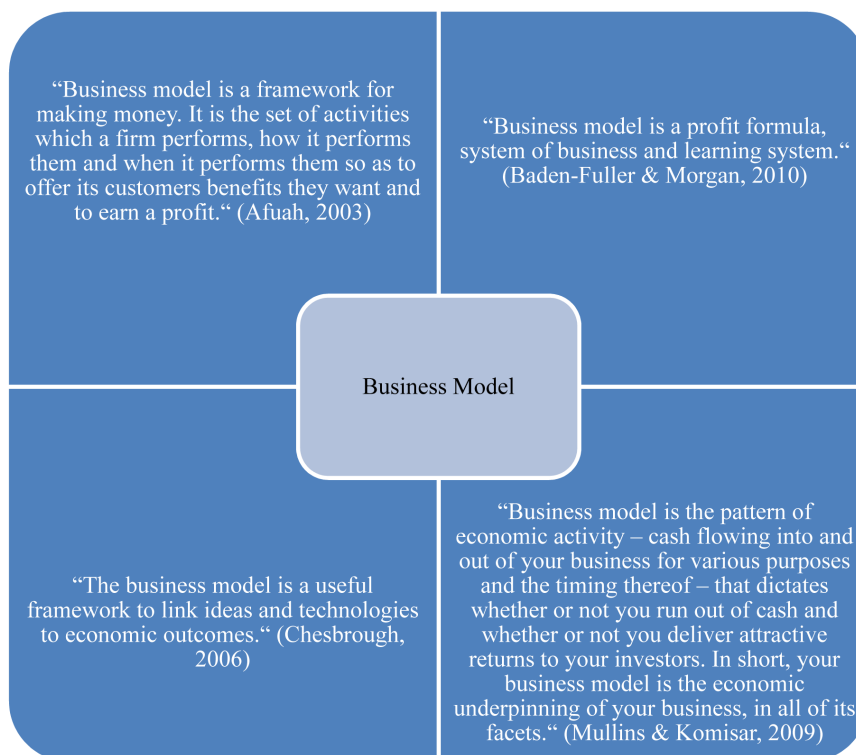
Picture 1 – Economic business model

We believe that a business model is a system of resources and activities that create value that is useful to the client, and selling this value brings profit to the company. The purpose of the analysis of business models is to deepen and expand knowledge about the main components of a business model. We see the importance of this goal in enhancing the functionality and efficiency of business models, as well as in identifying and developing competitive advantages that can be discovered with the companies themselves. According to John Mullins and Randy Komissar (2009), a successful business model is based on five models that determine the economic viability of a business (SmartArt 2) – Picture 2:
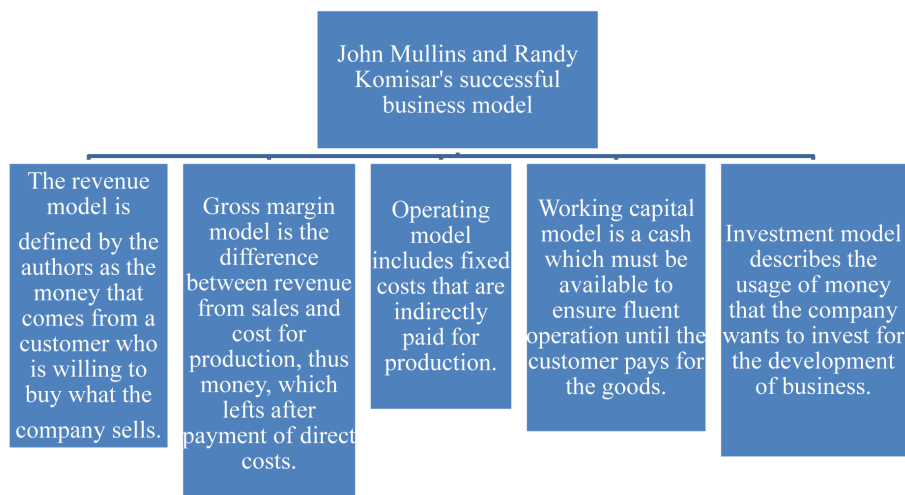
Picture 2 − John Mullins and Randy Komisar's successful business model

The recipe for a successful model is the harmony of all five models, which helps to be more effective and this harmony creates value for customers and profit for the company. A successful company is one that, after paying gross profit, operating expenses, operating capital and investments, still has free money. A positive mathematical result is a sign of success in the present and, probably, in the future. This concept can be applied to analyze business economics and assess financial health, but it abstracts from other components of the business model. This model pays little attention to the value that is offered to the customer, and that is why this model is not suitable for complex analysis.

David Watson shows and evaluates a business model through six components: competitors, customers, economics, management, products and suppliers. It offers a new and unusual understanding of each component (Chesbrough H 2006: 37).

Competition is determined by barriers to market entry, the threat of substitute products, competition within the industry, and the advantage of being the first on the market. Customers are evaluated according to their characteristics, types of contracts and payment rates. The author emphasizes the advantage of continuously detecting gaps in the market. The company's economy is analyzed taking into account acquisitions, economies of scale, earnings from the growth of another company, dividends and breakpoints. Management is judged by morality, conflict checking, accounting rules, past successes and relationships with partners. Product analysis focuses on brand loyalty, competitive advantage, new product development, differentiation, sales points and value chain innovations. Suppliers are determined by their bargaining power and opportunistic buying.

This model is complex. Its uniqueness lies in the fact that the model analyzes industry factors, such as competition, which relate to the environment of the business model, but are not part of the components of the business model.

Consumer segments are defined by five types of markets: mass, segmented, niche, diversified and multilateral. The mass market is a large group of consumers with similar needs and problems. A segmented type divides customers into groups based on the same characteristics. There are products and services tailored to the customer in niche markets. Diversified markets are located in two or more industries with different needs and challenges. The multilateral type uses and interconnects segments (the VISA credit card provider creates relationships between three groups − banks, cardholders and merchants).

The basis of the business is the creation of primary value, which is defined in the mission of the company and describes the main product or service that the company sells to the client. The company adds to the primary cost also "additional value" (or a group of additional values), called value added, which increases the perception of a product or service for a client.

Companies that decide on sales channels can choose between sales through their own distribution network (Direct sales: store, seller, website, smartphone application, phone) or sales outsourcing (indirect: intermediary).

A standard customer relationship is personal assistance based on human interaction. The client communicates directly with the seller during the entire sale process.

A modification of this type consists in the allocation of personal assistance when the client receives the only agent who takes care of him. In the type of self-service, the company does not have any contact with the client, but simply provides a service or product. Automated services combine sophisticated customer service with automated processes (the Internet) and use a CRM system that recognizes a customer and can recommend a suitable product or service to him. Businesses are increasingly using communities to improve customer relationships. This type of relationship provides a free, quality database of observations directly from the customer. The modern type of relationship is co-creation, which makes relationships outside the standard, and the client becomes a co-creator of a product or service.

The component revenue stream describes cash flows. Among the most frequently used authors include the sale of goods and services. Leases and leases generate income from the granting of exclusive rights to use certain assets. Licensing generates money from granting customers permission to use protected intellectual property in exchange for license fees. Brokers earn on every trade. Advertising generates income from the provision of medial space.

Key resources include material resources (production facilities, buildings, vehicles and equipment) and intellectual resources (brand, knowledge, patents, copyrights, partnerships, customer databases and human resources − staff and managers). Key activities describe the most important activities related to value creation. This may be production, supply of products, design, marketing, sale (Mullins 2009: 28).

The key partner of the component describes the most important companies, authorities or people

collaborating with the company. Optimization and economies of scale lead to partnerships that serve to reduce costs. The exchange of know-how, finances or technology encourages companies to join in partnerships. An example is Blue-ray technology, which was developed by a group of leading global electronics manufacturers, and after research and development, they began to sell their Blue-ray products individually. The acquisition of resources and activities also encourages companies to seek partners, because companies do not own all the necessary resources or do not perform all the necessary actions for their business. For example, insurance companies have brokers who sell products, and the insurance company can engage in core business. Costs represent the cash bonus of production.

The main goal of this work is to refine and systematize the latest theoretical knowledge about business models, develop their critical analysis, select an effective visualization method and study the properties of real business models.

The visualization tool R (Image 1) − powerful free software environment for statistical computing and graphics creation. R is the most complex of the tools listed here. As a statistical compilation used to analyze large data sets, R is a very complex tool that takes time to learn, but offers powerful support from other specialists and a batch library that is constantly expanding – Picture 3:
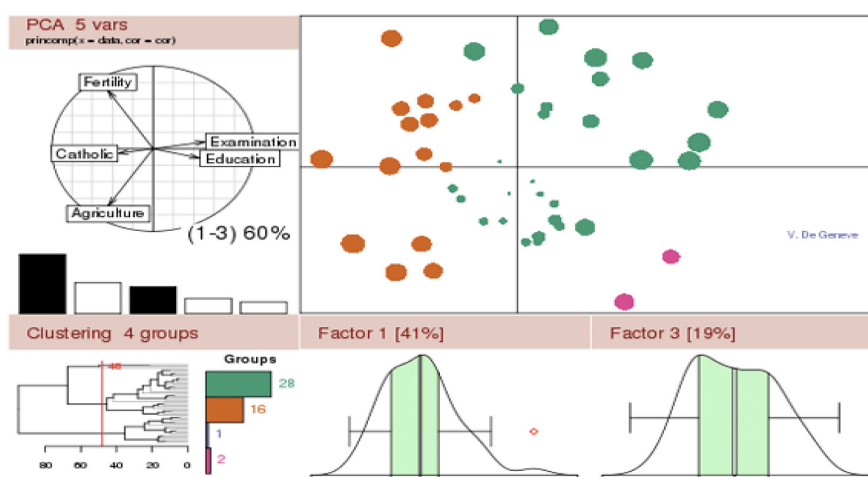
Picture 3 – Visualization tool R

The studied sample was analyzed quantitatively and qualitatively. Quantitative analysis consists in measuring the frequency of occurrence of certain signs of a business model. The advantage of this type of research is a wide range of answers, and the disadvantage is less detailed information. Qualitative research allows you to very deeply know the causes and correlations. The questionnaire was sent to managers or specialists of the internal business with sufficient reliable knowledge.

Results and discussion. Results of the study of business models associated with the understanding of it the company earns a profit, it is necessary to structure its activities. From a financial point of view, the business model of any company can be described as the product of return on sales and asset turnover (capital). Some companies operate with low return on sales and high turnover. Others − with high profits and low turnover. In this case, the result of business models and managerial decisions made is measured by return on equity (ROE = profit: equity). Having decomposed this indicator into components, we can conduct a multivariate analysis of the business model of companies to identify their advantages, as well as understand what factors the business model creates the value of companies. After all, the business model generates certain cash flows that affect the market value of the company, which can be defined as discounted future income streams. Such an analysis is also important because not every company making a profit creates value (Zucchella 2012:368).

Return on equity depends on three factors:

return on sales by net profit, asset turnover and financial dependency ratio. They characterize the

operating (profitability of the enterprise), investment (how assets are used) and financial activities of the enterprise (sources of financing assets).

Where

NP − net profit;

E − equity;

R − revenue;

A − assets

We will conduct a comparative analysis of the business model of two competing companies Snickers and Mars based on their main financial indicators (Table 1):

Table 1 – Comparative analysis of Snickers and Mars (Dupont method)

No.	Index	Formula	Snickers	Mars
1	Revenue, billion US dollars		46.5	66.5
2	Net profit, billion US dollars		8.6	6.4
3	Assets, billion US dollars		80	72.8
4	Carrying amount of equity, billion US dollars		31.6	20.7
5	ROE (Return on Equity),%	ROE = NP: E	27	31
6	Return on sales in net profit,%	Return on sales by net profit = NP: R	18	10
7	Asset turnover (assetutilization)	Asset turnover = R: A	0.58	0.91
8	Coefficient of financial independence	The coefficient of financial independence = A: NP	2,53	3,52
Three-factor Dupont analysis model				

The table shows that the volume of assets and net profit in Mars is less than in Mars (lines 3 and 2), but ROE Mars is higher than Snickers (line 5). The factor analysis of return on equity (lines 6, 7 and 8) allows us to understand why Mars has a higher ROE. This is mainly due to financial activities and more efficient management of company assets. To finance its activities, this company attracts more borrowed capital and its business model is more aimed at accelerating turnover (line 8). Together, these factors enable her to achieve a higher ROE. And Snickers business model is primarily focused on obtaining high margins. These indicators allow you to see how the business model of companies works in the first approximation. However, much remains incomprehensible. For example, whereby Snickers achieves higher sales profitability: at the expense of a lower share of cost or due to more efficient management of business and administrative expenses? Or why does Mars manage assets more efficiently − due to quick inventory turnover or efficient use of fixed assets? To answer these questions, a more detailed analysis is needed (Rappa M 2010:39). The relationship of the model of the arzgamma and the elements of the business model for a qualitative analysis, the business model must be dived even deeper. To do this, you can use the 9-element approach to the analysis of the business model. Relationship factors and elements of the business model is shown in the matrix elements of the relationship business model and factors arzgamma model (Table. 2). For example, distribution channels directly affect selling expenses and the management of cash, receivables, inventory and fixed assets. And consumer segments can have a strong impact on gross margin. Crosses in the matrix indicate explicit connections. However, the relationships of the business model are not linear and it is impossible to say exactly which element of the business model needs to be examined in more detail after a comparative analysis. Using the matrix along with the arzgamma allows you to select the elements of the business model that need to be studied first . In our example, Mars needs to look for lag by factors F1, F2, F11 and F12, first of all, in the following elements of the business model − key partners, key resources, customer relationships, sales channels, key activities, consumer segments. And Snickers − according to the factors F5, F7, F8 and F10 in such elements of the business model as key partners, distribution channels, key resources.

Table 2 – The matrix of the relationships of the elements of the business model and factors of the model of the arzgamma

Cost Structure			Revenue streams				
Key Partners	Key Activities	Key Resources	Value Proposition	Customer Relationships	Sales Channels	Consumer Segments	
*	*	*				*	Gross Margin (F1)
*		*		*	*		The effect from commercial and administrative expenses (F2)
							The effect from financial activities (F3)
*							The tax effect (F4)
*							Money management, days (F5)
*					*		Accounts receivable management, days (F6)
*					*		Inventory management, days (F7)
*					*		Management of other current assets, days (F8)
*		*			*		Fixed assets management (F9)
*		*			*		Management of other non-current assets (F10)
		*					Debt load (F11)
		*					Interest-free liabilities (F12)

Conclusion. The dynamics and evolution of the current business environment are pushing companies to think fundamentally about the reasons and conditions for its existence. Visualization, analysis and reconstruction of a business model are strategic processes that must be created before formulating a strategy. The definition of a business model is a condition of the order and system of each business. The key theme is the value offered to the client, which helps him solve his problem. The solution is implemented on the basis of resources and business processes and delivered to the customer through channels and communications. A model is functional and attractive to a company if it can appropriate a part of the produced value.

A study of business models revealed several key findings characterizing the mainstream business. Consumer segmentation is determined by industry and product type. Consumer value is always a combination of several interrelated values, but in general one of them is the most important. Personal contact as a distribution channel is one of the most effective, but the website is the cheapest. In relations with clients, personal relations prevail between traders and clients. The choice of relationship depends on the complexity of the product and value added. Income streams usually have several sources, and the type of income depends on the type of business. The key sources are mainly those that are formed and cultivated for a long time and are intangible, such as knowledge, experience, workers and managers. Key opportunities are characterized by an apparent mismatch between the importance and quality of opportunities. There are important communications, speed, management system and innovation. The business model is built on key activities, which are sales, marketing, production (operation) and is supported by human resource management, infrastructure and procurement.

Key partners serve to procure resources and activities, as well as to form business alliances. Most enterprises are between a cost-based model and a cost-based model, with a tendency to a cost-based model. The most expensive resources (2/3 of the cost) are machines, technologies and workers. The most costly activities (2/3 of the costs) are production, input logistics, warehousing and marketing. The

development of new technologies is constantly making fundamental changes to the stagnant forms of business models that work on long-term stable principles and have undergone only minor modifications. Further research should be aimed at identifying new features, deviations, extremes and trends in each block of the business model. It is necessary to develop new research materials on innovative business models and study the conditions, places and ways of introducing innovations.

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ECONOMIC AND ECOLOGICAL MODEL
OF THE LARGE CITIES DEVELOPMENT

Abstract. Developed economic − ecological model of modern large city on the example of Almaty, based on the main provisions of statistical theory, theories of logistics and the similarity of the General plan of development of Kazakhstan megapolis, the Strategy of transport development of Kazakhstan, programs to reduce the traffic load on the highways regulations of international and national importance, as well as on the basis of predictive decisions arising from the comprehensive consideration of the issues city transport road ecology (CTRE). It includes for the first time scientifically grounded ecological and economic indicators and daily ecological model of Almaty which were initial data for further researches and calculations. However, this complex problem practically in all textbooks and manuals on ecology is considered factually, i.e. separately without interrelation, and questions of interrelation or mutual influence of emissions of motor transport in aggregate with infrastructure SRN (traffic lights, intersections, sidewalks, avenues, etc.) on environment aren't still considered in the world literature. Besides there are no data on distribution of exhaust gases (EG) of motor vehicle in the residential area near highways in any source. Therefore, even it is difficult to expert to define the main sources of pollution of urban air environment.

Key words: street road network, ecology, emissions, vehicle.

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Ірі қалаларды дамытудың экономикалық және экологиялық моделі

Аңдатпа. Статистикалық теорияның, логистика және ұқсастық теорияларының негізгі ережелеріне, қазақстандық мегаполисті дамытудың Бас жоспарына, ҚР көлігін дамыту стратегиясына, автомагистральдардағы көліктік жүктемені азайту жөніндегі бағдарламаларға, халықаралық және Республикалық маңызы бар нормативтік құжаттарға негізделген, сондай-ақ қала көлігі жол экологиясы (ҚКЖЭ) мәселелерін кешенді қарастырудан туындайтын болжамды шешімдерге сүйене отырып, қазіргі ірі қаланың экологиялық-экономикалық моделі әзірленді. Оған алғаш рет ғылыми негізделген экологиялық-экономикалық көрсеткіштер мен Алматы қаласының тәуліктік экологиялық моделі кіреді. Алайда бұл күрделі мәселе экология бойынша барлық оқулықтар мен жәрдемақыларда іс жүзінде, яғни өзара байланыссыз бөлек қарастырылады. Сондай-ақ автокөлік шығарындыларының УДС инфрақұрылымымен жиынтығында өзара байланысы немесе өзара әсері мәселелері – қоршаған орта туралы көше жол желісі (бағдаршамдар, қиылыстар, тротуарлар, даңғылдар және т.б.) әлі күнге дейін әлемдік әдебиетте қаралмайды. Бұдан басқа, автомобиль жолдарына жақын тұрғын үй массивінде автокөлік құралдарының пайдаланылған газдарын (мысалы, пайдаланылған газдарды) бөлу туралы бірде-бір көзде деректер жоқ. Сондықтан, тіпті сарапшы қалалық ауа кеңістігін ластаудың негізгі көздерін анықтау қиын.

Түйін сөздер: көше-жол желісі, экология, шығарындылары, көлік құралы.

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Экономическая и экологическая модель развития крупных городов

Аннотация. Разработана эколого-экономическая модель современного крупного города на примере г.Алматы, основанная на основных положениях статистической теории, теорий логистики и подобия, генераль-

ного плана развития казахстанского мегаполиса, Стратегии развития транспорта РК, программ по снижению транспортной нагрузки на автомагистралях, нормативных документов международного и республиканского значения, а также исходя из прогнозных решений, вытекающих из комплексного рассмотрения проблем градо-транспортнодорожной экологии (ГТДЭ). Она включает впервые научно-обоснованные эколого-экономические показатели и суточную экологическую модель г.Алматы, которые явились исходными данными для дальнейших исследований и расчетов. Однако эта сложная проблема практически во всех учебниках и пособиях по экологии рассматривается фактически, т. е. отдельно без взаимосвязи. А также вопросы взаимосвязи или взаимного влияния выбросов автотранспорта в совокупности с инфраструктурой УДС – улично-дорожной сети (светофоры, перекрестки, тротуары, проспекты и др.) об окружающей среде до сих пор не рассматриваются в мировой литературе. Кроме того, нет данных ни в одном источнике о распределении отработанных газов (например, выхлопных газов) автотранспортных средств в жилом массиве вблизи автомобильных дорог. Поэтому даже эксперту трудно определить основные источники загрязнения городской воздушной среды.

Ключевые слова: улично-дорожная сеть, экология, выбросы, транспортное средство.

Introduction. Considering this question is necessary for the analysis of an ecological condition in the city and justification of prospects of its development. Thus known parameters were used, in the absence of those and existence of the similar, interconnected indicators of the Construction Norms and Regulations of Republic of Kazakhstan and Construction Norms and Regulations of the USSR (still used in Kazakhstan), and also our some look-ahead decisions started with provisions of the static theory, the theory of logistics and similarity, the master plan of development of Almaty 20 years ago and now. They were accepted according to category of the population (children, school students, pensioners, and economically active part), nature of activity of inhabitants and a current state of a life of citizens etc.

According to the objectives of the main objects of research is Almaty. However, such a metropolis as a whole is impossible to study. It can be considered from the position of structural-element approach proposed by academician of NAS RK Balabekov O. S. and developed by his students. According to this theory, one characteristic element of an object with a known structure is investigated and, having determined the parametric relationship of a set of elements, it is possible to establish General laws of functioning of the object under consideration.

As you know, the main task of the state investment policy of our country is to create a favorable environment for the expansion of extra-budgetary sources of financing of capital investments and attracting private domestic and foreign investments on the basis of further improvement of the regulatory framework and state support for effective investment projects (Atici C., 2012:167-178).

There are several sectors of the economy: the development of natural resources, infrastructure, communications and information, which are essential for our country. The development of these industries will have an impact not only on economic growth, but also on the social sphere, as well as on the integration of Kazakhstan into the international community. These are capital-intensive industries, for the development of which both foreign capital and strict strategic control of the state are necessary (Birdsall N., 1993:137).

Prospects for the development of the country's economy are closely linked to the need to attract foreign direct investment. The formation of a favorable investment climate and the solution of problems to attract foreign direct investment in the priority sectors of the Republic of Kazakhstan, in turn, are associated with a set of economic, social, political, infrastructure and other aspects of economic development. Thus, at present, the Republic of Kazakhstan faces the task of attracting investments taking into account its own incentives and achievements of national goals (Dean, J.M. 1992:103).

Literature review. Studies on FDI have used several different proxies for the infrastructure variable (see Root, and Ahamed 1978y.; Nonnemberg and Cardoso 2002y.; Jaumotte 2004y. among others). Unfortunately, however, complete time series data on most of these proxies is not readily available for the period under study (1970-2007yy.). Consequently, this study followed Morisset (2000y.) and Nizar and Singleton (2001y.), among others and uses the number of telephone lines (landlines and mobile) per 1000 people in a country as a proxy for infrastructure. This has been reported to be a consistent and reliable measure of economic growth which has been extensively employed in the FDI literature (Asiedu, 2002.; Loree and Guisinger, 1995.; Khadaroo and Seetanah, 2003. Mutenyo, 2008.; Opolot, et al 2008.).

Also, Wheeler (2001y.) used data from three developing countries (China, Brazil and Mexico) with a high level of FDI to study its effect on pollution. In this case, he found that the level of FDI decreased the levels of pollution. For their part, Perkins and Neumayer (2008y.) verified the relationship between

FDI and the efficiency in CO2 and SO2 emissions in 114 countries. The results proved that economies that started from a worse environmental situation improve their ecological efficiency faster when they adopted technologies and environmental policies similar to those of countries that started from a better situation, resulting in a convergence over time. Atici (2012y.) found, on the other hand, that the level of FDI had a negative and significant impact, so that they did not tend to increase pollution levels in the long term. On the other hand, the intensity of research and development activities has a great relevance on the relationship between the economic level and the level of pollution. On the one hand, there are direct effects of better efficiency on the reduction of pollution levels for a level of income. On the other hand, there is the effect of the greater benefit per unit of production, which decreases the energy intensity needed for production by each economic unit. Therefore, we assume that the greater the intensity of R&D activities, the lower the environmental impact of economic activities (Wheeler D., 2001:225).

In fact, Opolot et al (2008y.) contend that although the number of telephone lines may not be the best proxy for infrastructure, its significance nonetheless shows that infrastructure development does matter for FDI inflows to SSA. Accordingly, in this study, the assumption was that a country with a large number of telephone lines is more likely to have better roads, Internet access, and water/electricity supply, or in short better infrastructure. The model was specified just like Maria Delgado et al. (2000) and Balamurali et al (2004), the time subscripts are omitted for presentation simplicity.

Material and Methods. We have developed the following research plan:

1. Analysis of trends in the functioning, outflow and inflow of foreign direct investment in the priority sectors of the economy of the Republic of Kazakhstan.

2. The main countries investors in the Republic of Kazakhstan on the indicators.

In the country context, the largest FDI flows are from the following countries: The Netherlands − $ 3.1 million., US $ 2.3 million, Switzerland -1.2 million dollars, China − $ 495.3 million, Russia − $ 444.6 million., Belgium − $ 646.4 million, France − $ 415.6 million, Korea − $ 246.8 million, UK − $ 245.2 million (Sarsenov, 2017:4).

Table 1 – The number and structure of motor vehicle (for the beginning of 2001 year), one thousand units

	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007***	**2015****
Republic of Kazakhstan Including categories:	1349.5	1365.1	1471.5	1532.3	1752.6	1807.7	2000-2190	2900-3100
A-automobile	1057.8	1062.6	1148.7	1204.1	1405.3	1404.6		
B-buses	50.2	51.4	61.4	62.9	65.7	72.3		
L-lorries	204.6	214.2	223.0	224.9	281.5	282.0		
Almaty Including	236.1	206.0	262.2	235.9	289.3	340	410-420	620-650
A	201.1	165.7	218.2	199.5	254.8	287.3	344-353	
B	7.9	6.8	11.9	9.6	8.1	11.6	17-18	
L	23.2	30.6	29.0	23.0	26.4	41.1	49-50	
Astana	37.8	57.5	65.3	75.5	89.9		150-160	300-320
A	28.0	47.4	50.4	60.0	77.7			
B	1.7	2.4	3.4	3.3	2.7			
L	6.9	6.4	10.1	10.3	9.5			
Almaty region	115.1	116.0	135.8	171.1				
A	88.3	89.7	106.0	127.0				
B	3.7	3.8	4.8	5.7				
L	20.4	19.8	22.6	38.4				
South Kazakhstan region	106.0	106.4	117.4	127.7	150.7			
A	82.8	83.6	90.2	98.6	121.7			
B	5.7	5.7	7.6	8.3	8.5			
L	15.4	14.9	17.3	18.3	20.6			
Note: * Data of Traffic police of RK and Akimat (Local authority) of Almaty ** Look-ahead assessment (my own)								

According to this methodology, the residential area of any city or locality should be considered along the chain: a residential building with pedestrian paths; a yard surrounded by residential buildings; a microdistrict (quarter) with access roads; a residential area; a city. Motor transport is studied in sequence: as a single car; cars moving in one lane after another or in a row on a multi-lane road in parallel, flow, and UDS − as part of the highway, limited by traffic lights (Table).

For example:

− while defining the population of Almaty it is noted that 1.3 million people constantly live in the city, 230 thousand students (60-70 % of them are nonresident as they are part-time students), 50-60 thousand people come daily, 60-70 thousand people work temporarily (construction, trade) and live without a registration and also dynamics of birth rate and mortality on age were taken into consideration. Thus, daily population makes more than 1.5 million people. It is confirmed by the look-ahead data of Almaty akimat;

− the number of motor vehicles is defined from table 1.5 and on the account that 97 % of cars individual, according to the statistics theory only 2/3 part of them (repair, because of high cost of gasoline public transport is cheaper, because of constant jams it is quicker and more usefully on foot, some families have 2-3 cars, the personal car and so forth), and from trucks and buses taking into account data on a passenger turnover and goods turnover only 85-90 % leave places of parking on the road. Thus, as it was noted in the previous section, 55-70 thousand motor vehicles drive daily in Almaty, more than 900 of them are nonresident buses. There are 1400 ambulance calls, 8-10 thousand taxi and private carriers daily in the city. Thus, we will receive that nearly 340 thousand units of cars are on highways of the city and they define intensity of movement of cars at rush hours and cause jams. This indicator is not predicted by Almaty akimat and is not defined;

− an assessment of conditional foodstuff carried out taking into account age categories, and also a way of life of the person. Almaty is the financial, educational and cultural center of Kazakhstan. Therefore its inhabitants generally carry out an inactive way of life. Daily consumption of products by children of preschool age and pupils of schools on the established norms makes 1000-1700g. The volume eaten by the adult person depending on his anthropometrical data and nature of labor activity is equal to 2,5-3,0 kg. Calculations showed that for an average person in Almaty this indicator equals to 2.56 kg;

− at determination of providing population with housing in Almaty started with conditions of environmental friendliness of houses (buildings), i.e. from comfort of stay in them which indicators are given in table 2:

Table 2 – Indicators of comfortable staying of the person in a house

Indicators	Seasons of the year	
	Cold	Warm
Air temperature, C	20-22	22-25
Mobility of air, m/s	0.1-0.15	0.15-0.25
Humidity of air, %	30-45	30-60
Differences of temperature, C:		
-between a wall and air of rooms	2-3	-
-between a floor and air of rooms	1.5	-
Air volume on one person, m3/people, at single air exchange:		
-in living rooms and kitchens with electric stoves or 2 burners' gas stoves;	60	60
-with gas stoves with 4 burners;		
-in lavatories	90	90
Concentration of easy ions in air, an ion/cm^3	25	25
Concentration of ozone in air, mkg/m^3	1000-3000	1000-3000
	10-40	10-40

However, the universal use of plastic windows in it which because of high density reduce mobility and an air exchange isn't considered. Therefore the air volume for one person in a living room is increased by us to 15-20 %.This transfer can be continued. Thus, developing ecological and economic indicators of Almaty (table 3) were based on strict scientifically reasonable methodology.

For the first time the developed ecological and economic indicators are basic data for research and calculation of an ecological situation of any settlement. There is no such group of data not only in Almaty, but also in other cities. Scientific and practical value of the developed indicators will be confirmed in further researches. Here we will show the general model of an ecological condition in Almaty (table 3):

Table 3 – Ecological and economic indicators of Almaty for the beginning of 2007

№	Indicators	Values of indicators	Standard (rational) values	Excess	Deficiency
1	Territory, thousand hectares,	31.9			
1.1	The area of the planted trees and shrubs territories	4.0	14.2		10.2
1.2	Total area of mirrors of water fund	1.12			
2	Population, million people, including.	1.3(1.5)	0.8	0.7	
2.1	Economically active population:	0.650			
2.2	Pupils	0.175			
2.3	Students	0.230			
2.4	Pensioners	0.360			
3	Population density, thousand people/hec	40.7	25.1	15.6	
4	Average providing the population with housing, m^2/person	22	32-37*	-	10.15
5	Number of motor vehicles, thousand	420(500)	270	150(230)	
6	Number of parking spaces (cars), 1000	120	420		300
7	Density of highways with a firm covering km/sq km	5.3	2.4	2.9	
8	Transport density, units/hectares	13(16)	8.5	4.5(7.5)	
9	Major maintenance of roads, km/year	54	130		76
10	Daily consumption:				
10.1	Electricity, mln. kw/hour	13			
10.2	heat, thousand Gcal	45			
10.3	gas, million cubic meter	1.4			
10.4	cold water, million cubic meter	700			
10.5	bread, ton	420			
10.6	automobile gasoline and diesel fuel, thousand t	3.0			
11	Passenger turnover in public transport, thousand people per day	850	800	50	
12	Number of the registered road accidents per day	60-70	-	60-70	
13	Every day HS jump out environment:	460	-	460	
13.1	in the atmosphere, t	1400	-	1400	
13.2	firm household waste, t	815	-	815	
13.3	sewage, thousand cubic meter	1400	-	1400	
14	call of ambulance, time	660	-	660	
15	Arrive in hospital, person				
Note: *Buildings with plastic windows; ()− nonresidents of the city					

From this model we can see that Almaty does not give anything useful to environment; on the contrary, it takes everything and thus pollutes environment in huge scales – Table4:

For an evident ecological assessment of influence of the city we will enter an equivalent in the form of the earth area. For example, for compensation of deficiency of 114.3 thousand oxygen it is necessary to plant the wood with the area of 823 thousand hectares, and for receiving 3.84 thousand t. of conditional foodstuff it is necessary in an equivalent on wheat 700 thousand hectares of the earth without work of producers – agricultural workers and workers for preparation of food to a final stage. It is similarly possible to execute the same calculations for water, completion of other types of the resources consumed by the city. The same is with raw

materials for the industry and the enterprises of construction materials. Besides there is lack of territory for dispersion of emissions of harmful substances (HS) in the atmosphere, the air pool and storages of a firm waste. Thus, recognized that impurity of Almaty exceeds on the average 2-3 times of maximum-permissible concentration (maximum concentration limit) (table 4):

Table 4 – Ecological model of Almaty, Thousand units per day

№	Component or resource name	Consumption by the city	Made in the city	(-) deficiency (+)excess
1	Consumption of oxygen of the air pool (t), including:	115	0.7	-114.3
1.1	inhabitants and visitors	7.0		
1.2	motor transport	10.0		
1.3	Combined heat and power plant, industrial enterprises	98		
2	Water use (cubic meters), incl.:	700		-700
2.1	for economic and drinking needs of the population	400-450		
3	Consumption of conditional foodstuff (t), incl.:	3.84		-3.84
3.1	Bread			
4	Consumption of conditional fuel (t)		816.86	
4.1	For motor transport	0.42	0.72	-37
5	HS emissions in environment (t)	37	815	
5.1	In atmosphere	3	1.4	+816.86
5.2	superficial sewage			
5.3	firm household waste			

Summarizing the areas of the territory of the earth and a surface of mirrors of water fund on each indicator received nearly 3,0 million hectares of the earth necessary for independent functioning of Almaty, and it is 94 times more than the present territory of the Kazakhstan megalopolis.

The city of Almaty is the largest urbanized center of Kazakhstan. However, development and city industrialization without the sufficient accounting of physical, geographical and climatic features and ecological requirements led to ecological disruption in the megalopolis territory.

Average air temperature of Almaty +8,9 ^{0}C (during the warm period +28,2̌C, the cold period-11 ^{0}C), barometric pressure 920 gPa, the prevailing direction of a wind – southern. Settlement geographic latitude is 44 ^{0}NL. The northern point of Almaty has a mark of 670 m above sea level, and southern – 970m.

In Almaty, climatic factors create conditions for formation of high pollution of the atmosphere of the city. The city is characterized as light wind, repeatability of light breezes (to 1M/sec) it is estimated in the summer here at 71 %, in the winter in 79 %, in a type of it mid-annual value of speed of a wind in the city doesn't exceed 1,7M/sec which was confirmed by us experimental data.

The analysis of orographical conditions of the territory of the megalopolis shows that its vicinities are open in the northern direction on hundreds kilometers, and in the southern – surround stretching ridges, and it promotes penetration of air masses into a foothill part where powerful air temperature inversions are formed, especially in the winter. Accumulation of harmful impurity in a ground layer of air is promoted by light breezes, and temperature inversions, which are an obstacle for development of vertical air exchange and diffusion of polluting substances in the atmosphere.

At all directions of a wind, the city appears in so-called «an aerodynamic shadow». Climatic features create adverse conditions for dispersion of emissions; especially exhaust gases of motor transport and individual sources of heating. The exhaust gases containing oxides of carbon, nitrogen, hydrocarbons, firm particles and compounds of lead collect in a ground layer of the atmosphere. The most part from them settles on an asphalt covering and a soil cover. The dust with a complex of metals

and other polluting substances through respiratory organs and skin gets to a human body.

Results and Discussion. According to the generalized data on the average in a year across Almaty and its vicinities it is observed anti-cyclones of 10 %, cyclones of 6 %, baric (MGB) formations of 22 %, crests of 32%, hollows of 18 %, wave indignations of 12 %. In drawing 1 wind roses on characteristic for winter (A-January) and summer (B-July) are presented to months, an annual course (C-year), constructed according to the data presented in Picture 1. Drawing 1 – Repetition (%) of the directions of a wind and calms (in the circle center) at different times of the year, for 2011.
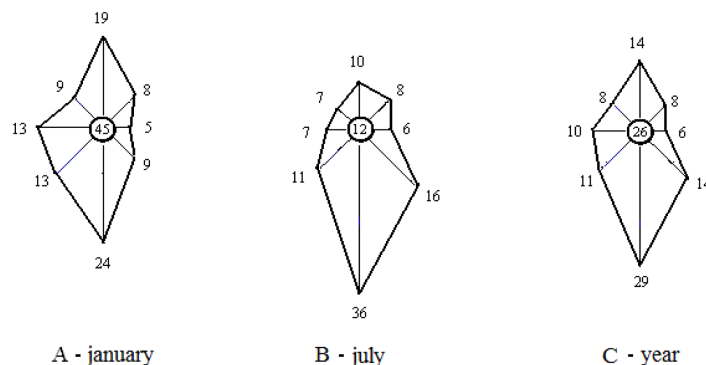
Picture 1 – Drawing 1 – Repetition (%) of the directions of a wind and calms

In the center of each wind rose repeatability of calms from total number of cases, as a percentage is shown. Strengthening of a wind is observed in summer months easing it to calm values in the winter (drawing 1). In a winter season baric gradients are a little underestimated at the expense of aerographical anti-cycle genesis, a stagnation coming from the North of mass of air and development along mountains of winter inversions which give stability to ground layers of the atmosphere. The summer maximum of speed of a wind is caused by aerographical strengthening of cyclonic processes and activating mountain valley circulation − Table 5:

Table 5 – Repetition of the directions of a wind and calms (%) Almaty, 2016

Month	N	NE	E	SE	S	SW	W	SW	Calm
January	19	8	5	9	24	13	13	9	45
February	18	9	5	9	20	11	15	13	43
March	16	10	7	9	22	11	14	11	29
April	14	10	6	13	27	9	12	9	19
May	12	8	6	14	32	11	10	7	17
June	12	7	6	15	35	10	8	7	13
July	10	8	6	16	36	11	7	6	12
August	12	8	6	16	35	10	7	6	12
September	14	7	6	18	33	8	7	7	14
October	14	8	6	19	30	8	8	7	25
November	13	8	6	15	29	11	13	18	34
December	15	7	6	12	24	14	13	9	43
Year	14	8	6	14	29	11	10	8	26

The function of passing of flat winds the system should be fulfilled by avenues, boulevards, recreation areas of the wide orientation main element of which is the recreational zone along the LAC (Large Almaty Channel), and also the highways which are cutting through on a meridian of Almaty, since the party of mountains should carry out function of corridors. However, this ecologically justifiable principle is broken in the last decade because of rash construction of buildings and constructions across the direction of a wind stream both from the South, and from the North. All these led to creation of the man-made ditch surrounded with the ridge and a technogenic wall in the form of high-rise constructions of the industrial enterprises and multistoried buildings.

Basis of formation of perspective planning structure of the city is the natural and ecological and transport framework. The natural and ecological framework is formed by the mountain rivers proceeding in the meridional direction through the city, parks, squares, boulevards and other planted trees and shrubs territories which are city «lungs». As a whole the structure of an ecological framework, is the large meshed grid, consisting their mutually being crossed green corridors of meridian and wide orientation for the admission of air streams mountain valley and flat circulation.

The following element of the urbanized framework of the city is the system of transport highways. The master plan provides development and improvement of transport structure of the city by creation in additions to existing new meridian and wide highways, roundabout highways, a network of service of vehicles, construction of traffic intersections, overpasses, platforms etc. The principle of creation of uniform system of high-speed city roads and highways is put in a basis of development of a street road network with differentiation of the last on highways of continuous and adjustable movement.

In Almaty according to various data and taking into account building, there are attached areas of 1260-1300 streets with total length of 1700-1800 km and extent of roads with a firm covering of 1600 km.

Conclusion. Designed ecological-economic model of modern large city on the example of Almaty, based on the main provisions of statistical theory, theories of logistics and the similarity of the General plan of development of Kazakhstan megapolis, the Strategy of transport development of Kazakhstan, programs to reduce the traffic load on the highways regulations of international and national importance, as well as on the basis of predictive decisions arising from the comprehensive consideration of the issues City transport road ecology (CTRE). It includes for the first time scientifically grounded ecological and economic indicators and daily ecological model of Almaty which were initial data for further researches and calculations.

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ANALYSIS OF THE CURRENT STATE AND DEVELOPMENT OF THE DIGITAL ECONOMY IN KAZAKHSTAN

Annotation. The purpose of the study is to review and conduct a scientific analysis of the current state and development of the digital economy of the Republic of Kazakhstan, which determine the existing and prospective potentials. Methodology-generalization, deductive approach, analytical comparisons, analysis and synthesis, statistical studies. Originality/value-analyzed and systematized modern parameters of the state, causing the formation of sustainable development of the economy of the Republic of Kazakhstan, which allows you to specify the reserves and priorities of the quality of economic growth. Conclusions − on the basis of the conducted research it is revealed that the current stage of the economy of the Republic of Kazakhstan requires a significant strengthening of the state policy to ensure its development, taking into account the trends of globalization of world economic policy, competition and scientific and technological progress. The analyzed quantitative and qualitative parameters of the economy showed that the main indicators of its growth do not correspond to the optimal level.
Key words − analyzed quantitative and qualitative parameters of the economy.

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Қазіргі жағдайды талдау және Қазақстандағы цифрлық экономиканың қазіргі жағдайын және дамуын талдау

Аңдатпа. Зерттеудің мақсаты – қазіргі және болашағы бар әлеуетті айқындайтын Қазақстан Республикасының цифрлық экономикасының қазіргі жағдайы мен дамуына ғылыми талдау жасау және зерттеу. Әдістеме-жалпылау, дедуктивті тәсіл, аналитикалық салыстыру, талдау және синтез, статистикалық зерттеулер. Экономикалық өсу сапасының резервтері мен басымдықтарын анықтауға мүмкіндік беретін, Қазақстан Республикасының экономикасының тұрақты дамуын қалыптастыруға себеп болатын ерекше / құндылық талданған және жүйеленген қазіргі заманғы параметрлер. Қорытындылар – жүргізілген зерттеулер негізінде Қазақстан Республикасы экономикасының қазіргі кезеңі әлемдік экономикалық саясаттың, бәсекелестіктің жаһандану тенденцияларын ескере отырып, оның дамуын қамтамасыз ету үшін мемлекеттік саясатты едәуір күшейтуді талап ететіні анықталды. Талданған экономиканың сандық және сапалық көрсеткіштері оның өсуінің негізгі көрсеткіштері оңтайлы деңгейге сәйкес келмейтіндігін көрсетті.
Түйін сөздер: экономиканың сандық және сапалық параметрлеріне талдау жасалды.

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Анализ современного состояния и развития цифровой экономики в Казахстане

Аннотация. Целью исследования является обзор и проведение научного анализа текущего состояния и развития цифровой экономики Республики Казахстан, которые определяют существующие и перспективные возможности. Методология-обобщение, дедуктивный подход, аналитические сравнения, анализ и синтез, статистические исследования. Оригинальность / ценность анализируются и систематизируются современными параметрами состояния, обуславливающими формирование устойчивого развития экономики Республики Казахстан, что позволяет уточнить резервы и приоритеты качества экономического роста. Выводы - на основании проведенного исследования выявлено, что современный этап развития экономики Республики Казахстан требует значительного усиления государственной политики для обеспечения ее развития с учетом тенденций глобализации мировой экономической политики, конкуренции. и научно-технический прогресс. Проанализированные количественные и качественные показатели экономики показали, что основные показатели ее роста не соответствуют оптимальному уровню.

Ключевые слова: проанализированы количественные и качественные показатели экономики.

Introduction. Kazakhstan did not start "from scratch". In the 90s, the state program on forced industrial and innovative development was launched, the program of international education "Bolashak" was initiated, in 2005 the formation of "electronic government" was started.

The Foundation for the digital transformation of the economy of Kazakhstan was the state program "Information Kazakhstan-2020", approved in 2013. She contributed to the development of the transition to the information society, improvement of state management, establish institutions of "open and mobile government", increasing the availability of information infrastructure not only for corporate bodies but also for citizens. According to the results of three years of implementation of the state Program, it has already been achieved by 40%.

In his Address, the Head of state noted that the development of the digital industry will provide impetus to all other industries. In this regard, the President set the task of developing new industries that are created with the use of digital technologies.

The main goal is the progressive development of the digital ecosystem to achieve sustainable economic growth, improve the competitiveness of the economy and the nation, improve the quality of life of the population.

The implementation of the state program is carried out in four key areas:

In the key world ranking of ICT development, calculated under the auspices of the UN — ICT Development Index, Kazakhstan in 2016 occupied the 52nd place out of 175, without changing its position since 2015. As a result of the Program and other strategic directions, the country will rise in the ranking to 30th place by 2022, 25th place by 2025 and 15th place by 2050.

According to the results of the report of the International telecommunication Union in the index of information and communication development in 2017, Kazakhstan ranks 52nd among 176 countries. In the CIS region, Kazakhstan is among the three leaders, placing on the 3rd place after Belarus (32nd place) and Russia (45th place).

Literature review. Today, Kazakhstan has already created a number of elements of the innovation ecosystem, operates SEZ " PIT "Alatau", AOO "Nazarbayev University", launched the international Technopark Astana hub. 3/4 of the adult population of our country has a basic level of digital literacy, more than 3/4-have access to the Internet. This is a significant base from which we can build in the implementation of the Program.

In October 2017, at a meeting of the Supreme Eurasian economic Council, the heads of the EAEU member States approved the main directions of the digital agenda until 2025, and also supported the initiative of Nursultan Nazarbayev to hold a

special meeting on the digitalization of the EAEU economy.

And such a meeting took place on February 2 this year in Almaty.

The last meeting of the EEU and the EAEU international forum "Digital agenda in the era of globalization" clearly confirmed the need to implement digital transformations in national economies within our common market and accelerated development of competitiveness on a global scale.

According to Ruslan Yensebayev, despite some differences in basic initiatives and approaches, the EAEU countries are actually at the starting point and understand the practical feasibility of synchronizing digital processes in the countries.

"I am sure that the EAEU has the capabilities, resources and competencies to compete with other States and integration associations for their place in the digital world," R. Yensebayev said.

Digitalization is significantly ahead of the existing system of production requirements for the composition of professions employed in the labor market.

The digital economy requires people to have the digital skills to benefit from it. At the same time, the current level of computer (digital) literacy of the population is 76.2%, and its growth is needed in the coming years.

According to Ruslan Yensebayev, it is necessary to completely revise the content of all levels of education through the development of digital skills of all specialists.

For the development of technical and professional, higher and postgraduate education in order to bring together industry and education, measures are provided for the creation of ICT departments of Universities at enterprises, as well as competence centers.

1. Secondary education

At the moment, the Ministry of education and science of the Republic of Kazakhstan is already implementing a number of initiatives: 3-4 classes introduced the subject "Information and communication technologies", forming a common basic knowledge of working with modern information technologies for their effective use in education and everyday life. There are 372 robotics clubs that teach the General basics of programming within robotics.

The study of it competencies will be introduced in curricula at all levels of education, by 2025, 100% of Kazakhstan schools is planned in elementary school to introduce the study of the fundamentals of programming, already in 2018 will increase

the number of grants for the it profession and the opening of the it departments in major enterprises of the Industry 4.0.

2. Technical and professional, higher and postgraduate education

According to the MES on the basis of three specialties introduced the subject "Information and communication technologies", forming students ' basic knowledge of the use of ICT in practice within the chosen profession.

Activities are also planned on updating educational programs based on professional standards and requirements of the labour market demand for new professions such as Data Science, Robotics, Genomics, Nanoelectronics and Nanomechanics, developers of high qualification for product development using technologies: Artificial Intelligence, Iot solutions, Blockchain, Additive technologies, BIM etc.

To date, training of ICT specialists for the sectors of the economy in Kazakhstan is conducted in 89 higher educational institutions in 11 specialties and in 318 organizations of technical and vocational education in 5 specialties.

From 2013 to 2017 ICT-occupations was released 109 557 people, of whom 62 964 people completed the training at the expense of budgetary funds.

At the same time, it should be noted that Kazakhstan has a specialized University that trains qualified ICT specialists for the sectors of the economy-the international University of information technology. There are also other strong universities, such as Suleiman Demirel University, Kazakh-British Technical University, Nazarbayev University, L. N. Gumilev Eurasian national University, etc.

3. The ecosystem of startups

An important and necessary condition, according to Ruslan Yensebayev, is the presence of technological entrepreneurs as a class, the development of a system of "orders" for technological projects, where customers are large local and international companies, and the performers are students. Since it is not possible to create a critical mass of Kazakh entrepreneurs in the short term, it is necessary to consider international experience.

"In General, countries with a developed ecosystem see foreign entrepreneurs and technology specialists as a source of specific know-how necessary for the development of a local startup ecosystem. Their experience, as well as technologies of research and development, entrepreneurship, management − all the achievements that foreign experts are able to share, can help to accelerate the formation of a local ecosystem of startups. In addition, they provide

a variety of cultures and knowledge, which in the future can become a competitive advantage for both the ecosystem itself and each of its participants", – said the head of "Zerde".

The expert also notes that now much attention is paid to the development of the innovation ecosystem. For this purpose, Astana Hub was created on the basis of "Astana Expo", work is underway to select startups that will be accelerated on its basis.

This year it is planned to develop and bring to the level of ready-made companies 33 startups. Until 2022 – about 300 companies. Three R&D laboratories (Research and Development) will also be opened with partners of Zerde holding, large international it companies.

In addition, this year it is planned to teach about 400 thousand businessmen and ordinary citizens the necessary it competencies (Belousov 2013:47).

The basis of digitalization of the economy is production. The concept of digital production is a set of tools to optimize the workflow through software and hardware solutions.

To put it quite simply, digitalization is nothing but a transition from analog to digital. This process involves not only the replacement of production tools, but also the introduction of analytical systems to maximize production cost-effective.

Material and Methods. Modern technologies can significantly reduce the cost and percentage of defects, while improving the quality of products, more and more companies will be motivated to use them – and over time, the digital economy will be perceived as quite a "traditional".

Briefly list the negative factors, which have to face, the foremost national mentality, fear, or even rejects all revolutionary new, throw in the laziness of the population and dependency expectations from the social subsidies of the state. The government agencies, officials and representatives of quasivector, unfortunately, still is bound to the commodity economy as the less risky and more profitable without excessive costs, and the majority of the business community, the principle of "buy-sell" prevails over innovation and the need for rapid and flexible changes.

This year, in his Address, the Head of state set clear objectives for the digitalization of all sectors, including industry, agriculture, transport, construction and housing, the financial sector, education and health care, public administration.

Minister of information and communications Dauren Abayev spoke about the plans for 2018, identifying the main areas in which it is necessary to do the work outlined in the plan and gave instructions to a number of key subordinate organizations.

Among the performance indicators planned for the current year, the main ones are:

At the same time, in 2018 the Ministry starts the project "Construction of fiber-optic communication lines in rural areas of Kazakhstan" the project will cover 1249 villages until 2020.

According to preliminary estimates, the direct effect of the digitalization of the economy of Kazakhstan by 2025 will create an added value of 1.7 – 2.2 trillion. tenge, thus providing a return on investment in 4.8 – 6.4 times by 2025 to the total volume of investments, taking into account private investment (Belousov 2013: 47).

The most significant effects in terms of GDP will fall on 12 key projects:

In addition to achieving economic impact and increasing competitiveness, digitalization will have a positive impact on the social sphere. By 2022, the effect of quality development of education, health care and the investment environment is expected to begin. This effect is insignificant on the horizon of the Program, but in the long term will significantly reduce the gap in socio-economic development with the top 30 developed countries of the world.

An important result of the Program will also be the acceleration of Kazakhstan's entry into the top 30 in the UN ICT development index.

"The key factors for the success of digital transformation in Kazakhstan can be a significant degree of involvement of the country's leadership, government agencies, and the government in the digitalization of all sectors of the national economy, through the systematic development of the ICT sector, creating a favorable environment for attracting digital innovation technologies, providing support to talented youth," Ruslan Yensebayev said (C John Pezzey, Michael A, 2002: 2-3)

Successful implementation of the impact of digitalization on the growth of production by 2022 will mean the following achievements:

The widespread introduction of digital technologies will give impetus to the development of traditional basic industries by ensuring productivity growth and increasing their competitiveness, including in the international market.

Kazakhstan, implementing an integrated approach to digitalization, focused on such basic elements as digitalization of the mining industry and agriculture, further development of digital public services and ICT infrastructure. Special attention is paid to the development of human capital and the creation of an innovation ecosystem.

The digital economy has many advantages. Expected Digital dividends for Kazakhstan are defined and designated in accordance with the strategic objectives of the state.

As a result of the implementation of the state Program "Digital Kazakhstan»:

According to the Official website of the Prime Minister of Kazakhstan

How will Kazakhstan's economy turn into a digital one?

Since the beginning of this year, the strategically important state program "Digital Kazakhstan"has started. Let's see what is planned and what has already been done to prepare the economy of Kazakhstan for the fourth industrial revolution.

In the emerging digital economy group

According to the results of the study of the company "Boston consulting group" (BCG), reflected in the article "Kazakhstan on the way to the digital economy", the level of digitalization of the economy of Kazakhstan in 2016 ranked 50th place out of 85 countries and is in the group with the emerging digital economy. The digital divide between leading Nations and lagging Nations is widening year by year. The key to maintaining the competitiveness of Kazakhstan's economy is the development of the digital component through joint efforts of the state and business, including in such industries as industrial, transport and logistics, infrastructure, agriculture, subsoil use, energy, education and health care (Jackson, 2009: 1).

Therefore, this year launched an important state program for the development of modern Kazakhstan – "Digital Kazakhstan". It is designed for 2017-2020 and is of strategic importance for the country. The main goal of the program− " improving the quality of life and competitiveness of the economy of Kazakhstan through the progressive development of the digital ecosystem." It is no coincidence that the basis for its development was the decree Of the President of the Republic of Kazakhstan dated February 1, 2010 No. 922 "on the Strategic development plan of the Republic of Kazakhstan until 2020".

The Foundation of the program "Digital Kazakhstan "was the state program" Information Kazakhstan-2020", approved in 2013. According to the results of three years of implementation of "Information Kazakhstan-2020" it was achieved by 40%. However, the rapid development of information technology on a global scale required an adequate and timely response from the government. Therefore, it was necessary to take the next step – to initiate the process of transformation of the key

sectors of the national economy, education, health care, as well as the sphere of interaction between the state and society and business.

According to the forecasts of the world's leading experts, by 2020, 25% of the world economy will be digital, and the introduction of technologies to digitalize the economy, allowing the state, business and society to interact effectively, is becoming an increasingly large-scale and dynamic process. Expanding the role of information technology in the private and public sectors is the basis for the transition to the digital state. For these purposes, the state program "Digital Kazakhstan"was developed.

Price issue Initially in the draft state program "Digital Kazakhstan", which was published in 2016 JSC "national ICT holding "Zerde", the total cost of the program in 2017– 2020 was to be 384,220 billion tenge, including, in 2017 – 25,216 billion KZT, in 2018 – 102,188 billion KZT, in 2019 – 94, 856 billion tenge, in 2020 – 161, 958 billion tenge. However, it was stipulated that the amount of funding from the national and local budgets will be specified in the formation of appropriate budgets for the planned period. As of may 2017, more recent figures appeared in the media. So, in 2017, on projects under the state program will spend 12 billion KZT, in 2018 – 57,3 billion KZT, in 2019 – 25,7 billion tenge, in 2020-m – 37,9 billion tenge, finally, in 2021 17.8 billion tenge. As a result, it is planned to develop a budget of more than 150 billion tenge.

Who will pay? The source of expenditure will be the state budget and quasi-public sector funds, private investment, loans from financial institutions and development institutions. More specifically, about 140 projects will be implemented within the framework of "Digital Kazakhstan". And 44 projects will be implemented by the quasi-public sector. The bulk-69 projects will be financed from the state budget, 7 projects will be implemented through public-private partnership, 4 projects will be financed by international financial institutions, 9 projects will be financed from local budgets, and finally, 28 projects will be financed from the organizations ' own funds.

The effect of the investment of such large sums should become tangible results: Internet penetration in Kazakhstan – 81%, productivity growth in ICT – at 43%, the level of digital literacy is 81.5%, the level of satisfaction with the quality of self-services received in an electronic form – 84% share of volume of production and realization of goods (services) of the ICT sector in total GDP to 4.9%.

The Ministry of information and communications of the Republic of Kazakhstan,

which has developed the program, proposes to achieve these goals, acting in four key areas.

First, it is the creation of the "Digital silk road", which means the development of reliable, affordable, high-speed and secure digital infrastructure.

Secondly, the creation of a" creative society", which implies the development of competencies and skills for the digital economy, work to improve digital literacy of the population, training ICT specialists for industries.

Third, it is digital transformation in the sectors of the economy, the widespread introduction of digital technologies to improve the competitiveness of various sectors of the economy.

And fourthly, the formation of a" Proactive digital government", for which the system of electronic and mobile government will be improved, the scope of public services will be optimized.

Central and local government agencies are responsible for the implementation of the program.

What would we do? "Digital silk road" − the beginning

The implementation of the" Digital silk road " is closely connected with the development of modern cellular standards and the construction of backbone Internet networks. Fortunately, such initiatives are implemented by the market forces. Mobile operators are actively completing their 4G networks, and the standard was launched for the first time in Kazakhstan in December 2012 (in the cities of Astana and Almaty).

In addition, JSC "national infocommunication holding "Zerde" reminds that Kazakhstan already provides the shortest route for information flows between Europe and Asia, strengthening its competitive advantage in the market of international traffic transit. Acting as a coordinator of interregional initiatives, for example, the TASIM network project – TRANS-Eurasian high-speed information highway, Kazakhstan promotes the integration of data exchange centers of Western Europe and Asia. According to the analysis of the UN economic and social Commission for Asia and the Pacific ESCAP, Kazakhstan occupies a leading position in the capacity of international communication channels in the countries of the region.

At the same time, new realities dictate the need to constantly increase the capacity of ICT infrastructure, speed parameters of networks and achieve a high degree of security. Thus, according to Kaspersky Security Network, Kazakhstan has been the target of 85% of Internet attacks in Central Asia, compared with 8% in Uzbekistan, 4% in Kyrgyzstan, 2% in Turkmenistan and 1% in Tajikistan.

The elimination of these threats is an excellent field for the efforts of the state. Ensuring confidentiality, integrity and availability of state information resources is a priori a basic task for the government of Kazakhstan. As practice shows, the reliability of the data center is achieved through the use of various backup schemes of engineering infrastructure at the design stage of the data center in accordance with international standards. At the same time, disaster resistance of both public and private data centers is ensured by reserving resources at a geographically remote site. Strengthening of information security measures within the framework of the program will be carried out by improving and further equipping testing and research laboratories of the State technical service, creating a system of accreditation of bodies confirming compliance with the requirements of information security standards. It is also necessary to improve information security at critical production facilities, in such industries as oil and gas, uranium, electricity, etc.

To avoid data loss of government information systems as a result of failure or temporary failure of the server center of government agencies, the program provides for the creation of a highly reliable and easily scalable data center of government agencies in accordance with international standards and information security (Jackson, 2009:1).

The study of international experience has shown that an effective means of combating various types of offenses with mobile network subscriber devices (cell phones) is blocking from connecting to cellular networks by IMEI-code of illegally used and imported phones. As a result, the blocked phone is not of interest to potential users, as it can not be used for its intended purpose.

This method is used in Azerbaijan, Turkey and other countries where there are Single data banks of IMEI-codes of phones with "white", "gray" and "black" lists (Krivonos U: 2016:3).

The solution to these problems is the creation in the Republic of Kazakhstan of a single database of identification codes of mobile network subscriber devices. The creation of a single database of identification codes of mobile network subscriber devices will block the connection to the networks of stolen, illegally imported into the country mobile devices, as a result of which the feasibility of economic smuggling and theft of phones will disappear.

Developing the "creative society»

In this area, the main task is to increase the level of computer literacy and training of ICT staff. Speaking with the report in may this year, Minister

of information and communications Dauren Abayev first of all drew attention to the implementation of the state program "Information Kazakhstan". "The state program has fulfilled its purpose ahead of schedule, and the main target indicators planned for 2017 have already been achieved," the Minister said. − So, in the doing business rating of the world Bank, Kazakhstan took 35th place, and the share of the ICT sector in the country's GDP increased from 3.5% to 3.9%. The level of computer literacy of the population exceeded 76%."

According to him, in Kazakhstan more than 84% of households use the Internet, the number of subscribers of the national satellite network exceeded 1.2 million, 71% of the population turns to the domestic media for information. Every year in the field of ICT in Kazakhstan are on average 30 thousand people (submitted by the Committee on statistics of the Ministry of national economy of Kazakhstan: a University, 13 thousand persons, technical and vocational education − 17 thousand people; according to the international scholarship "Bolashak" − 200 people).

At the same time, to this day there are a number of challenges, which are the need to increase productivity through training, improve the competitiveness of innovative domestic companies and new media platforms to increase the participation of citizens in the development of digital society. The world Bank's Digital dividends report also confirms that as new technologies evolve and penetrate new professions, workers will have to continually assess and improve their skills.

The program provides for bringing the level of education of graduates to the requirements of employers in the ICT industry. Acting as a bridge between the education system and employers, the program includes activities to support the education system, with the aim of creating real skills for new jobs in the economy.

During the implementation of the program, professional personnel in the field of education, medicine, production will be covered by teaching them practical digital skills. This approach will identify the need on the basis of new trends and involve relevant organizations that will provide the necessary assistance in specialized training. Since the demand for these skills is growing, an initiative will be created to develop such strategically important skills in key sectors of the economy by opening competence Centers on the basis of advanced universities in Kazakhstan.

With the aim of increasing digital literacy in the framework of the program will be developed a set of training materials and organized training to all segments of the population in all regions of Kazakhstan.

Create a "digital industry». In agriculture of Kazakhstan, the share of agricultural producers using digital technologies in the production of agricultural products is insignificant, which negatively affects the growth of yields and reduction of costs in agriculture.

According to "Zerde", for the further development of the agricultural sector in the framework of the program is planned: automation of the process of subsidizing agriculture, which would improve the transparency and efficiency of subsidies, as well as control over the development of allocated funds; the development of automation of registration, pledge, issuance of agricultural machinery, issuance of driver's licenses will allow to provide state services in the field of technical inspection for the population, to conduct centralized monitoring and control over the technical condition of agricultural machinery and compliance with legislation in the field of technical control and road safety; automation of traceability of livestock products, providing a full accounting of objects, identification of animals, tracking movements, including a system of response to diseases, which will allow industry representatives to quickly and effectively respond to various diseases when they occur; automation of traceability of crop products will track the entire life cycle of products, including the processes of production, storage, transportation, sale, destruction/disposal; automation of monitoring the turnover of fish and fish products will reduce the volume of poaching and illegal trafficking of fish products, as well as ensure the conservation of fish resources, collection and timely processing of information on the activities of fishing and fish processing organizations, enterprises engaged in the purchase and sale of fish and fish products, its wholesale and retail sale.

As the Foundation of the information and communication infrastructure of the subsoil use industry in Kazakhstan, within the framework of the state program "Digital Kazakhstan", it is planned to create a "national data Bank of mineral resources". The idea is that by providing a single tool for the collection and storage of data obtained from existing subsoil users, the state will not only ensure the safety of subsoil data, but will also be able to attract additional investment in the industry by providing these data to potential investors. In addition, this tool will increase the transparency of the state management of the mineral resource complex by automating the processes of granting subsoil use

rights, excluding direct interaction of state bodies with the subjects of subsoil use rights.

Also for the digitalization of industry in Kazakhstan McKinsey&Co in conjunction with the SEZ "Park of innovative technologies" (AlmatyTech Garden) plans to create a Centre of excellence for digital industry on the basis of the competence Center MMC together with the technological multinational companies, the purpose of which will be the pilot projects for mining enterprises for optimization and automation of production processes, conducting projects on the collection and in-depth analysis of the data.

First of all, information and communication infrastructure will be created, namely, measures will be taken to connect broadband access to the Internet, as well as industrial Internet for the implementation of digital industry projects at 10 large enterprises and 1 special economic zone.

In the future, it is planned to implement 10 projects for partial automation of production through the introduction and modernization of the sensor system.

It is planned to expand the use of digital technologies in transport and logistics by creating an Intelligent transport system. In Kazakhstan the introduction of its will allow to achieve the following objectives: to increase transit capacity through the management of the vehicle (routed as transit traffic, planning, movement of transit traffic, the observance of the established level of service, guaranteeing on-time transit flow, combining on-Board equipment necessary for the management of transit transport); strengthening transport security; logistics and transport management (ensures the management of passenger and cargo transportation, including the transportation of dangerous goods), improving the safety of regular passenger transportation by automating the functions of traffic control; accelerating the response and improving the efficiency of all transport services.

In addition, the project will develop e-Commerce, financial technologies, digitalized health care, education, will be built Smart-city.

Proactive government e-gov. According to the latest data from the UN and the world economic forum, Kazakhstan ranks 33rd in the e-government index and 39th in the network readiness index, leading among the CIS countries.

In the first half of 2017, eGov portal provided more than 18 million services to citizens. At the same time, the top five popular services provided through the e-government portal included the service "Issuance of information on the receipt and movement of funds of the depositor of the unified

accumulative pension Fund". In the first half of this year, this service was used 1 426 237 times.

The greatest number of services rendered for the issuance address information from the place of residence − more than 10 million, in second and third place certificates on registered rights (encumbrances) to immovable property – more than 2 million and certificates on absence (presence) of real estate – more than 2 million, in fourth place – issuance information to the investor FUND. Completes the top services issuance of a certificate of the presence or absence of information about the Commission of a criminal offense-855 114 (Krivonos U: 2016:3).

It should also be noted that compared to the same period last year, the total amount of payments made through the eGov payment gateway increased by 1.4 billion tenge. In the first half of this year, this figure amounted to 7.7 billion tenge.

Analysis of the current state of the transport and communication complex of the Republic of Kazakhstan

The state and development of transport are of exceptional importance for the Republic of Kazakhstan.

Geographical features of Kazakhstan (vast territory, lack of access to the sea, uneven distribution of settlements and natural resources) make its economy one of the most cargo-intensive in the world, causing high dependence on the transport system.

Located at the crossroads of Europe and Asia, Kazakhstan has significant transit potential, providing Asian countries with geographically uncontested land transport links with Russia and Europe. The attractiveness of the transit potential of the Republic's airspace is also growing. The proximity to the States with huge markets makes the development of the domestic transport system promising.

Relatively flat landscape 7 and the presence of large reserves of natural stone allow unhindered development of rail and road transport.

The main share of the network of land routes is accounted for by roads and Railways (88.4 and 14.0 thousand km, respectively). The length of exploited waterways is 3.9 thousand km, Airways − 61 thousand km density of the road network per 1000 square km is 5.1 km of Railways, 32.4 per km of roads paved, 1.5 km of inland waterways.

Kazakhstan's choice in favor of a market economy, made in the early 90s, and the reforms have significantly changed the working conditions of transport and the nature of demand for transport services.

In the first decade of transport reforms, basic structural and institutional changes were made. The legal basis of the transport industry has been created to meet the new socio-economic conditions. The functions of state administration and economic activity are divided, the system of state regulation of transport activity adequate to market conditions is created. Privatization of some modes of transport has mostly been completed.

The structure of organizational and legal forms and the number of transport enterprises in all sectors change annually. This indicates the continuing formation of an optimal market governed by the principles of competition and the real demand for transport services.

The system-forming role of transport has increased significantly and the interrelation of its development tasks with the priorities of socio-economic transformations has improved. In General, transport met the growing demand for the transport of passengers and goods. From 2000 to 2005, the growth of transport services for the year was: passenger transport-7.8%, freight transport-9.5% (with an average annual economic growth of 10.3%).

However, despite the General adaptation of transport to market conditions, the current state of the transport system cannot be considered optimal and its level of development sufficient.

The unbalanced location of the transport and communication network throughout the country hinders the development of the common economic space and the growth of population mobility. Industrial oriented network of Railways and roads were developed without regard to the territorial boundaries of the former Soviet республик8. Incompatibility of some technical parameters of transport infrastructure with international standards and systems of existing trade partners of Kazakhstan Is a significant obstacle to regional integration and development of trade and transport links.

Considerable unevenness in the development of the transport network hinders the economic development of the regions. About 2 thousand rural settlements do not have year-round transport links. Security settlements regular message is 69.3 per cent.

At the present stage of its development, the transport complex of the Republic is characterized by an unsatisfactory state of fixed assets, outdated and underdeveloped infrastructure and technologies.

The share of transport costs in the cost of final products is relatively high and is at the level of 8% and 11%, respectively, for domestic rail and road transport, in countries with developed market economies, this figure is 4-4.5%. In terms of cargo capacity, Kazakhstan's economy is about 5 times less efficient. Thus, for each unit of GDP in dollar terms, there are at least 9 ton-kilometers of transport, and in the European Union, the cargo capacity is less than 1 ton-kilometer/dollar of GDP.

The growing demand for quality transport services is not fully met due to the insufficient level of technical development of the transport system and the lag in the field of transport technologies.

A significant increase in all transport volumes, including those related to the export of coal, oil cargo, metal products, chemical and petrochemical products, and other goods, is constrained by insufficient capacity.

The possibility of increasing the gross national product through the export of transport services is not fully realized, because the position of domestic carriers in the world market of transport services does not meet their real capabilities and the transit potential of the Republic is not fully used.

The location of the Republic of Kazakhstan in the center of the Eurasian continent predetermines its geopolitical role as a transit bridge between Europe and Asia, as well as between Russia and China.

On the territory of Kazakhstan are formed on the basis of the existing transport infrastructure in the Republic of four international transport corridors.

− The Northern corridor of the TRANS-Asian railway (TARM): Western Europe − China, Korean Peninsula and Japan via Russian and Kazakhstan (section Dostyk − Aktogai − Sayak − Mointy – Astana

− Petropavlovsk (Presnogorkovskaya);

− Term southern corridor: South-Eastern Europe − China and South-East Asia through Turkey, Iran, Central Asian countries and Kazakhstan (section Dostyk − Aktogai − Almaty − Shu − Arys − Saryagash);

− TRACECA: Eastern Europe-Central Asia via the Black sea, Caucasus and Caspian sea (on the Dostyk − Almaty − Aktau section);

− North-South: Northern Europe − Persian Gulf countries through Russia and Iran with participation of Kazakhstan at the sections: sea port Aktau − Ural regions of Russia and Aktau − Atyrau.

In addition to the areas participating in the formation of the main transcontinental routes, it is necessary to note the Central corridor term of importance for regional transit in the direction of Saryagash − Arys − Kandagach − Ozinki.

The corridors can significantly reduce the distance in the East-West communication and the delivery time of goods.

Results and Discussion. The strong growth of China's economy, in particular its Western regions, is already causing the need to deliver a variety of goods to world markets. However, according to experts, the level of development of transit in Kazakhstan does not correspond to the potential of the industry and the Republic as a whole. For example, in 2003, the volume of China's foreign trade with the EU countries amounted to 115 million tons, while the volume of transit traffic through the territory of the Republic of Kazakhstan in this direction amounted to about 3 million tons. The use of potential transit opportunities of corridors by major modes of transport is shown in table 1:

Table 1 − Potential transit opportunities of corridors by major modes of transport

Mode of transport	Volume of transit in 2005	Potential opportunity	The use of the potential
Railway, million tons	8,895	30,0	30 %
Road, million tons	0,350	3,0	12 %
Air, million aircraft-kilometers	84,7	342,5	25 %
Sea, million tons	0,150	2,5	6%

Geographically, the network of transport corridors is focused on meeting industrial and economic needs. It requires further optimization and partial reorientation, taking into account the prospects of territorial development, the placement of productive forces and the resettlement of the population.

Safety indicators of the transport process, primarily road traffic, do not correspond to the world level. Every year more than 3 thousand people die in road accidents (road accidents), which is more than 2 times higher than in developed countries.

Over the past 5 years, the annual increase in the number of victims in road accidents was about 10-15%. If this trend continues, if the state does not take radical comprehensive measures to improve safety, including modernization of infrastructure, implementation of educational programs and strengthening of the law enforcement system, in 2015 the number of road accident victims may reach 10 thousand people.

The share of transport in environmental pollution reaches 30%, which is more than 1.7 times higher than in developed countries.

Against the background of growing demand for transport services and its even more significant increase in the forecast perspective, a number of unresolved internal problems remain in the transport system as a whole and its individual sub-sectors.

The institutional and structural changes in the transport sector that have been initiated in recent years have not been properly developed. It is necessary to complete them consistently in order to create stable conditions for the further development of market relations in this sector of the economy.

The degree of depreciation and aging of fixed assets of the transport complex of Kazakhstan on average reached a critical level − 60%, which led to a shortage of rolling stock and bringing the capacity of some sections to the limit.

The main railway network is not sufficiently developed. To optimize it, it is necessary to build new railway lines in the East-West direction.

As a result of long − term underfunding of railway transport, there was an accumulation of physical depreciation of fixed assets-more than 60%. The industry uses technically and morally obsolete models of rolling stock, track equipment, worn track designs and uses outdated technologies for repair and maintenance of fixed assets. The efficiency of the operation system requires high costs to maintain fixed assets in working order.

Given the global trend of growth of cargo containerization (55% of total freight transport) requires development of container multimodal transportation and establishment of logistic centres, providing technological unity of different transportation types.

The network of roads of national importance is mainly formed. It is necessary to build roads in the latitudinal direction, linking Western Kazakhstan with the rest of the country. In addition, it is planned to build connecting sections on the roads with neighboring countries.

The unsatisfactory condition of the road surface leads to a decrease in operating speeds, an increase in operating transport costs, an increase in accident rate.

Depreciation of the rolling stock of the motor vehicle fleet (about 30% of buses and 40% of trucks have a service life of more than 13 years) leads to higher repair and operation costs, reduces the level of services and has a negative impact on the environment.

The network of international airports in Kazakhstan is optimal, but it is necessary to bring it in line with international standards. There are 21 airports operating in the Republic out of 22. Due to non-compliance with the technical standards of airfield complexes and due to the introduction of restrictions on the types of aircraft, only 5 airports (in Astana, Almaty, Aktobe, Atyrau and Karaganda) can accept heavy aircraft without restrictions. Other airports are in need of reconstruction.

The outdated fleet of aircraft (672 units), which are not economical and do not meet international standards for noise and engine emissions, creates restrictions in the service of international airlines. In this regard, it is important to create an attractive environment and the use of effective methods that contribute to the renewal of the aircraft fleet.

To a large extent, the development of air transport is affected by the lack of modernization of infrastructure and fixed assets of civil aviation. Due to insufficient capacity and non-compliance with technical standards, Kazakhstan's hub airports are forced to reduce the number of aircraft they receive and send, along with the introduction of restrictions on the types of aircraft.

Currently, in the Caspian region, Kazakhstan is represented by the only international commercial sea port of Aktau, which meets international standards of quality and technology of services provided. At the same time, the further development of the mining industry in the Western region of the country will bring the level of oil production to 140 million tons per year by 2015, which will lead to an increase in oil transportation through the seaport of Aktau in the amount of 20 million tons per year. This necessitates the expansion of the port's production capacity infrastructure to an appropriate level in the medium term, as well as the construction of oil terminals in other ports and the establishment of a support base for Maritime operations.

Most vessels of the inland water transport industry have developed 2-3 service lives. Depreciation of the state technical river fleet is 85%.

Other significant problems of water transport are the technical condition and reliability of hydraulic structures (locks). Long service life (more than 50 years), mistakes made in the design and construction, increased seismicity of the area ($6 - 7.5$ points), aging of concrete structures, problems with the purchase of spare parts and equipment require urgent measures to carry out their reconstruction and modernization.

The level of import of technical means for the transport complex of Kazakhstan is high, it is more than 90% in certain industries. In this regard, it is necessary to form and develop domestic production for the repair and production of rolling stock, equipment and spare parts for the transport complex.

The level of funds allocated for the development of scientific potential in the transport industry is insufficient: according to expert estimates, it is less than 0.1% of transport revenues against 2-2.5% in developed countries.

The level of implementation of the fifth technological way (microelectronics, telecommunications, flexible automation, combined use of various structural materials) in the transport complex of the Republic is insufficient. For example, fiber-optic communication lines make up about 30% of the total length of the main communication lines of the Republic, in railway transport − 2.3%.

The state of the infrastructure and fixed assets of the transport complex requires large investments from the state and the private sector. The rehabilitation of infrastructure and renewal of rolling stock through investment and the creation of favourable conditions for the development of a competitive market for operators are urgently needed.

There is a lack of complexity in the management of the development and functioning of the transport system, as well as in the coordination and interaction of different modes of transport.

Along with infrastructural problems, the transit flow through the territory of Kazakhstan faces a number of barriers, the most significant of which are unreasonable delays and procedural difficulties in passing customs and border control.

The activities of all sectors of the transport complex are characterized by inadequate regulation of transit tariffs. Natural monopolists providing transit transport services operate in conditions of fierce international competition, which requires greater flexibility in the formation of transit tariff policy.

The legislative base defining legal and organizational aspects of transport activity is generally formed. At the same time, in some industries there are no by-laws necessary for the implementation of the adopted sectoral laws. Existing regulatory and technical standards do not meet international standards and need to be harmonized. The legislation governing the transport sector should take into account the main provisions

of international law in the field of transport. In order to improve the system of regulatory legal support for the functioning of transport, the development and adoption of a Transport code is being considered.

The current level of transport financing, which is about 1.5% of GDP, is much lower than in countries with similar territorial characteristics. Actively developing countries invest in the transport sector up to 4-7% of GDP.

Problems in the development of transport increase infrastructure constraints, reduce the level of social development and the formation of a single economic space. Their early resolution becomes particularly important in the context of the transition of the national economy into a phase of sustainable and qualitative growth.

Between 2000 and 2004, Kazakhstan's economy grew by 42.7 per cent in terms of GDP, and its production of goods and services grew by 41.9 per cent and 43.7 per cent, respectively. At the same time, the volume of cargo transportation by all modes of transport increased by 28.5%. As a result, there is a situation when the existing capacity of the transport infrastructure constrains the growth of the economy.

The prospects of economic development of Kazakhstan with an expected saving GDP growth rate at 8.8-9.2% a year and bringing the annual average growth rate in the manufacturing industry to 8-8,4%10 will inevitably increase the burden on the transport system, particularly on the infrastructure of rail and road modes of transport, playing a key role in industrial and economic processes within the country and in its export-import and transit relations.

Raw material orientation of the state economy along with long distances at low population density causes a high dependence of the economy on transport. If during the economic downturn, the transport complex provided all the needs of the state's economy, as well as provided support by restraining tariffs and prices for transport services, now, in a period of stable economic growth, substantial state support is needed in the recovery and recovery of the transport industry.

Current state and development of digital economy in the Republic of Kazakhstan.

Conclusion. The relevance of the work is due to the modern development of the economy on the basis of digital technologies. Digital transformation represents the creation of innovative products and services based on a complex of advanced technologies, the formation of fundamentally new business models and business processes, advanced Analytics. This section is devoted to the problems of development of the digital economy in the Republic of Kazakhstan and adopted in different countries, one of the key indicators of digitalization of traditional industries.

The section discusses the current state and trend of development of the digital economy in the Republic of Kazakhstan. In the modern Republic of Kazakhstan there is a dynamic formation of the information society, the main components of which are: information and communication infrastructure; legal support; information tools and software and organizational and management system. The section discusses the observance of national interests, is also to create and implement a system of priorities for electronic technologies and services based on domestic developments. The program for the development of the national digital economy is also socially oriented and seeks to contribute to the creation of new opportunities for improving the lives of all social groups. In this regard, the national program for the development of the digital economy seeks to formulate development directions for the formation and maintenance of the most favorable organizational, infrastructural and regulatory characteristics of the Kazakh digital jurisdiction for business development in the new economic order, as well as the advanced development of national institutions of the digital economy.

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GLOBAL LOGISTICS SYSTEMS

Abstract. Nowadays successful functioning in the foreign market is impossible without active application and continuous development of methods of the international marketing and tools of global logistics. This article is aimed at the study of the basic concept, importance and functions of globalization in the field of logistics. Consideration of the methodological and practical problems of building a global logistics systems on the basis of foreign experience. The article also reveals the main trends of globalization in the aspect of the use of logistics systems by transnational corporations and financial industrial groups.

The purpose of this research is to study the features of the formation of global logistics systems and their application as a tool for local business to enter the world economy.

The work is of high scientific and practical significance; the research presented in this article can be used in writing research papers, theses and master's theses, and it can also be considered by business enterprises as recommendations for the application and continuous development of international marketing methods and global logistics tools.

As a result of the study, the main trends in the development of global logistics systems were identified, and recommendations were made to optimize global logistics processes in terms of improving the quality of the international economy and its components.

Key words: global logistics, global logistics systems, transnational corporations, financial industrial groups.

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Жаһандық логистикалық жүйелер

Аңдатпа. Бүгінгі күні сыртқы нарықта табысты жұмыс істеуі халықаралық маркетинг әдістері мен жаһандық логистика құралдарын белсенді қолданусыз және тұрақты дамытусыз мүмкін емес. Бұл мақала логистика саласындағы жаһанданудың негізгі ұғымын, маңыздылығы мен функцияларын зерттеуге бағытталған. Шетелдік тәжірибе негізінде ғаламдық логистикалық жүйелерді құрудың әдіснамалық және практикалық мәселелері талданды. Мақалада трансұлттық корпорациялар мен қаржы-өнеркәсіп топтарының логистикалық жүйелерді пайдалану аспектісінде жаһанданудың негізгі тенденциялары ашылады. Осы зерттеудің мақсаты жаһандық логистикалық жүйелерді қалыптастыру ерекшеліктерін және оларды экономиканың әлемдік деңгейіне шығу үшін жергілікті бизнес құралы ретінде қолдану мәселелерін зерттеу болып табылады. Мақала жоғары ғылыми және практикалық маңыздылығымен ерекшеленеді, осы жұмыста келтірілген зерттеулер ғылыми-зерттеу еңбектерін, дипломдық жұмыстар мен магистрлік диссертацияларды жазу кезінде қолданылуы мүмкін, сондай-ақ халықаралық маркетинг әдістерін және ғаламдық логистика құралдарын қолдану мен тұрақты дамытуға ұсыныстар ретінде бизнес-кәсіпорындармен қаралуы мүмкін. Жүргізілген зерттеу нәтижесінде жаһандық логистикалық жүйелерді дамытудың негізгі үрдістері анықталды, сондай-ақ халықаралық экономиканың және оның құрамдас бөліктерінің жұмыс істеу сапасын арттыру тұрғысынан жаһандық логистикалық процестерді оңтайландыру бойынша ұсынымдар әзірленді.

Түйін сөздер: жаһандық логистика, жаһандық логистикалық жүйелер, трансұлттық корпорациялар, қаржы-өнеркәсіптік топтар.

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Глобальные логистические системы

Аннотация. На сегодняшний день успешное функционирование на внешнем рынке невозможно без активного применения и постоянного развития методов международного маркетинга и инструментов глобальной логистики. Данная статья направлена на исследование основного понятия, значимости и функций глобализации в сфере логистики. Проанализированы методологические и практические проблемы построения глобальных логистических систем на основе зарубежного опыта. Также в статье раскрываются основные тенденции глобализации в аспекте использования логистических систем транснациональными корпорациями и финансово-промышленными группами. Целью настоящего исследования является изучение особенностей формирования глобальных логистических систем и вопросов применения их в качестве инструмента локального бизнеса для выхода на мировой уровень экономики. Работа отличается высокой научной и практической значимостью. Исследования, приведенные в данной статье, могут быть использовании при написании научно-исследовательских трудов, дипломных работ и магистерских диссертаций, а также могут быть рассмотрены бизнес-предприятиями в качестве рекомендаций к применению и постоянному развитию методов международного маркетинга и инструментов глобальной логистики. В результате проведенного исследования были выявлены основные тенденции развития глобальных логистических систем, а также были выработаны рекомендации по оптимизации глобальных логистических процессов с точки зрения повышения качества функционирования международной экономики и ее составляющих.

Ключевые слова: глобальная логистика, глобальные логистические системы, транснациональные корпорации, финансово-промышленные группы.

Introduction. Over the past decade, various domestic and foreign authors have conducted many studies in the field of globalization in the field of logistics, but the conditions are changing and few of these works fully correspond to the realities of the modern world and reveal the importance of the use of global logistics systems on the example of transnational corporations and financial and industrial groups, this indicated the rationale for the choice of this topic.

The relevance of the chosen research topic is due to the fact that today globalization has an impact on almost all aspects of our lives, there is a dynamics of the process of integration of business into the world economy. And without a methodological approach to the analysis of the functioning and study of the effectiveness of the applicability of global logistics systems, it is impossible to properly regulate this process. In addition, this research topic is relevant today due to the fact that it is global logistics systems that allow in modern conditions to find the most effective options and forms of organized commodity markets and material flows. For example, today there is a tendency to concentrate the main material and financial flows in the triangle: USA-Europe-China (Alesinkaya 2005: 121), and the competent construction of global logistics systems will help business companies to track all shipments in other countries of the triangle, which makes it possible to make operational decisions and focus on priority orders.

The object of this study is global logistics systems on the example of transnational corporations and financial and industrial groups. The subject of scientific work is the issues of application and construction of global logistics systems by companies in order to integrate into the world business and improve the level of the global economy as a whole. The aim of the study is to study the most important aspects of globalization in the field of logistics, to identify effective ways of applying global logistics systems and to develop recommendations for their proper construction and functioning (Games H 2012:552). The achievement of this goal was carried out by solving the following main tasks:

* definition of logistics systems and their classification;

* identification of the importance of globalization in the field of logistics for the world economy, as well as the importance of global logistics systems for business;

* study of the scheme of activities of foreign enterprises, namely transnational corporations and

financial and industrial groups, and their experience in the application of global logistics systems.

Material and methods. This study is based on the analysis of foreign works in the field of international and global logistics, marketing and international Economics, as well as on the study of the activities of large corporations and their experience in the use of global logistics systems. The main materials of the research were books and educational publications of foreign and domestic authors over the past ten years, scientific articles published in journals, as well as electronic resources.

The study raised a key question about the effective application of global logistics systems in the context of integration into the world economy. To solve this problem, methods of system analysis, methods of economic modeling, as well as prognostic methods were used. When using the method of system analysis, the basic concepts used in global logistics were analytically investigated, and the types of logistics systems were identified. The role of the modeling method is especially great in economic research, the modeling method allows solving the problems of further development of the economy and building its model in the future. In the field of logistics, the forecasting method is widely used to predict the development of logistics systems, which is quite successfully used to predict trends (in most cases, growth) in the field of material production and to study the processes of saturation of the market with goods and services (Waters D 2018: 416).

There are many ways to classify the logistics system proposed by domestic researchers. However, based on the needs of the business, all logistics systems can be classified according to such features as:

* Control object;
* Industry specialization of the company;
* Business sector (platform);
* Business level (concentration of capital and firm capacity).

On the basis of "object management" all logistics systems can be

divide into the following groups:

1. Material (commodity) flows: logistics systems production (industrial) firms, wholesale trade companies, wholesale and retail companies;

2. Service flow: logistics systems of firms providing services;

3. Mixed BOS, in which there are main streams of two types.

Depending on the industry specialization of industrial companies, there are logistics systems of machine-building enterprises, metallurgical plants, construction enterprises, industrial enterprises, etc.

for wholesale enterprises, one can distinguish, for example, logistics systems of industrial distributors, distributors of pharmaceutical products, distributors of food products, etc. Firms that provide services can also create their own logistics systems, for example, travel companies (tour operators), advertising agencies, Express or transport companies, banks, etc (Pettits S 2016:536).

Of great importance for the construction of the logistics system is the business sector (business platform) in which the company operates. Currently, there are mainly two sectors: business to business (B2B) and business to customer (B2C). Depending on the business sector (i.e. who is the final consumer of the company's products or services − another business organization or individual consumer), different priorities, key factors, logistics strategies, concepts and technologies are formed. The business sector has a significant impact on the company's corporate information system and information and computer support of logistics.

Finally, depending on the capacity of the company, the concentration of capital and access to international markets and resources distinguish global logistics systems, formed mainly by transnational corporations and financial and industrial groups. The link of the logistics system will be considered functionally (structurally) separate division of the company or legally independent enterprise, organization, institution, which are one of its three parties in logistics, considered as a whole within the logistics system, implementing one or more types of logistics activities.

The allocation of part of the logistics system is determined by the lowest level of decomposition of the logistics system and the necessity to isolate an operation or set of operations to optimize resources, automate management, modeling business processes, making the operation a particular artist or technical device, forming system of accounting, control and monitoring of logistics plan.

Review of the main literature (Okpara J 2008:344). This research is based on the fundamental works of foreign authors in the field of logistics over the past decade. For example, Donald Waters ' book Global Logistics And Distribution Planning: Strategies for Management provides a wealth of useful insights and practical information on all current and future trends in logistics and distribution. Author Donald waters, former member of the logistics Institute and currently a member of the Canadian logistics management Association. In his work, he considers strategies for the development of international logistics for Western and Eastern Europe, the Far East

and North America. It is noteworthy that the work clearly spelled out strategies for the development of logistics, but not investigated the practical side of the theories put forward. A completely different approach from the authors of the book "Contemporary Logistics" Paul R. Murphy Jr. and A. Michael Knemeyer, who in their work explore modern logistics from a managerial point of view. In this paper we can see how the theory "comes to life" thanks to timely, practical and fascinating coverage of the basics of logistics.

Literature review. The works of such foreign authors as Timm Gudehus, Herbert Kotzab (Comprehensive Logistics) [4], Regina Neubauer (Business Models in the Area of Logistics: In Search of Hidden Champions, their Business Principles and Common Industry Misperceptions), Cathy Macharis, Sandra Melo, Johan Woxenius, Tom van Lier (Sustainable Logistics) were also used as reference literature, James H. bookbinder (global logistics), Thorsten blecker, Wolfgang Kersten, Christian lüthje (innovative process optimization methods in logistics: emerging trends, concepts and technologies). These works contain the basic concepts, different views of different authors on a particular system of logistics and are generalizing, which served as a General theoretical basis for this study.

In the works of authors John Mangan and Chandra L. Lalwani "Global Logistics and Supply Chain Management", as well as Stephen Pettit and Yingli Wang "E-Logistics: Managing Your Digital Supply Chains for Competitive Advantage" questions of interaction and close relationship of logistics systems and supply chain (supply chain) are investigated.in this work the authors define global logistics systems and link them with supply chain management. However, in our opinion, global logistics systems include a much larger number of links, and this concept should be considered from a broader point of view. The textbook of authors Gareth R. Jones, Jennifer M. George and others "Contemporary Management" is intended for teachers and students of higher educational institutions of economic specialties and reveals modern trends of management development from the point of view of application of global logistic systems. It is obvious that an integral part of any business is a well-functioning management tool, and to achieve this goal, logistics systems are widely used, however, in our opinion, the authors are limited to only one side of the entire functionality of logistics systems, and this article reveals all areas of application of logistics systems, including enterprise management.

To begin the study, it is necessary to understand what is global logistics and what is the importance of globalization in this area. In our opinion, it is possible to consider global logistics from several sides, on the one hand, it is undoubtedly a process. The process of building a supply chain from the manufacturer through the supplier to the consumer. On the other hand, global logistics is a science that has the methods, knowledge and skills to solve complex strategic tasks and manage the processes of creating and implementing logistics chains and systems. With the establishment of new trade agreements designed to improve the exchange of goods, services and technology across borders, the global manufacturing environment has undergone its own revolution. And the main drivers of this growth are:

• global market;
• new technology;
• global costs, and
• other factors, such as the global network of suppliers, currency fluctuations, etc.

So how does globalization affect logistics? Multinationals need logistics management partners who are present around the world to help them adapt supply chains and maximize the benefits of tariffs, regulations and standards in new trade zones. It is no longer about working with a few logistics firms, but about consolidating partnerships with a few diligent and well-established suppliers. In the global market, manufacturing firms are increasingly looking for partners with experience in local culture, communications and logistics in key foreign regions. They also select firms that can handle all aspects of logistics, be aware of new trends and technologies and offer flexibility at every stage. Globalization has become an integral part of success in any sector, and companies of any size compete for their positions in foreign markets in addition to local ones (Nozdreva R 2005: 990). Logistics companies must adapt quickly to these changing conditions if they are to gain market influence, survive and outperform their competitors.

Material and Methods. To the definition of logistics systems, in our opinion, must be approached from the point of view of methods of systematization, as logistics system is a complex of different units of the company (its structural divisions), suppliers, customers and logistics intermediaries, are interrelated and United by a common logistics process management to implement corporate strategy and business model. Therefore, when using the methods of systematization, it is necessary simultaneously with the consideration of this complex as a whole, to consider each element in detail. This helps to

determine on what basis a particular logistics system is classified. Global logistics systems are formed depending on the capacity of the company, the concentration of capital and access to international markets. In particular, in the global scope, logistics systems are created by transnational corporations and financial and industrial groups. The global logistics system is able to organize the effective movement of goods to the international production complex, and from it-through many intra-national distribution networks-to consumers around the world. The global logistics system as a complex concept includes the entire spectrum of the world's mining, processing, production, transport, financial and other systems, combined for a more efficient distribution of world resources and management of global opportunities.

Global logistics requires close and complex cooperation between multiple business partners. Shipping companies, airlines, Railways and trucking companies transport goods. Global delivery services manage the movement of goods. Real estate logistics companies own and manage facilities that are important hubs for transportation, management and storage, while a variety of service providers provide the software, security, manpower and business intelligence that support the global logistics system (Neubauer R 2011: 393).

A transnational Corporation (hereinafter-TNC) is a huge company that does business in several countries. Such companies can provide jobs and enrich the country's economy. As an example of such companies, we can cite the well-known: IKEA, Nestlé, Unilever, Siemens, etc. TNCs use global logistics chains and channels in their business, primarily for the purpose of reasonable distribution of goods.

A high degree of concentration of scientific and technical potential in one hand contributes to ensuring the monopoly position of large corporations in the world market.

By expanding the range of functions and services, corporations are naturally transformed into financial and industrial groups (hereinafter-FPG), which are more typical of the CIS countries than the West.

FPG has established itself as a more perfect organization of industrial and financial capital, which is able to preserve and ensure the further development of competitive industries, give a new impetus to developments, allow, using the assistance of the state (through the system of privileges in the field of taxation, transfer to trust management of stakes in regional ownership of enterprises; investment tax credit, preferential lease or transfer for temporary gratuitous use of property owned by the state, etc.)

to its participants to find and win their place in the internal and external economic environment. A characteristic feature of the development of financial and industrial groups is their multi-sectoral focus, which allows you to quickly respond to changes in market conditions. The main purpose of the FPG is to create favorable conditions for investment activities through the use of effective investment mechanisms, distribution of responsibility, operations on the domestic and foreign securities market.

Results and Discussion. In practice, there are often problems in the application of logistics systems by companies, this includes:

* High overhead costs for global supply chain and logistics management;

* High inventories and lost sales as companies struggle to match supply and demand in a long supply chain;

* High costs for expedited transportation;

• High level of variability of time of receipt;

* Reactive rather than proactive logistics management;

* The gap between incoming international traffic and domestic transport operations ( ).

Based on the above, we can conclude that the use of logistics systems for business is not so simple, and to achieve the goal of reaching the global level of the economy it is necessary to have special skills and technologies. In our opinion, today only a few companies can competently apply automated global logistics processes. As a result, mechanical processes are still present in most organizations. Logistics staff typically spend too much time on the low-cost activities needed to move cargo and do not devote enough time to developing more effective plans and approaches to ensure continuous improvement. The reality is that global logistics is much more complex than domestic transportation. Implementation requires dozens of references: according to many estimates, there can be up to 25-30 transfer points in a complex global movement involving multiple parties with highly varying levels of technology ( ). Thus, we believe that automation is one of the most important steps to the effective application and functioning of global logistics systems. Global logistics is highly dependent on information technology. Not only to track shipments, but also to move products around the world, large amounts of data are also created-Big Data. This information should be used in the construction of new and cheaper trade routes, avoiding conflict regions.

Conclusion, it should be emphasized once again that for most industries and for many companies, the ability to achieve and maintain

the superiority of global logistics systems will be a significant factor in determining their overall corporate success. And thus, the globalization of logistics systems allows: to create a large number of transnational companies that use global logistics chains and networks in business; to influence international trade, socio-political and economic relations between countries; to create favorable conditions for the export and import of necessary products; and to remove unnecessary obstacles and restrictions in the access of economic entities to markets.

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