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#### ECONOMETRIC ASSESSMENT OF AZERBAIJAN'S LOGISTICS CAPABILITIES IN TERMS OF RELATIONS WITH TURKIC-SPEAKING STATES

**Introduction.** Despite of global crises pandemic "COVID-19" the international logistics sectors continue to grow. Unstable price of oil and other raw materials strongly affects to the economic relations of those countries are influence to trade over and logistics sectors in the last 10 years. Nowadays, the totals GDP of States is \$1089.18 B USD [23]. Turkic-Speaking States have economic potential but relation in economic, political and cultural field is promising. Every states have own economic potential but Azerbaijan plays a unique role in this tie. The load and containers start from the western part of Chine which is passing cross all the Turkic Speaking States reach to the Europe.

The academic paper aims to identify the economic communications export and import products and to explain the logistic role of Azerbaijan in the Turkic Speaking States using different trade and logistics indexes and economic investigations methods. Development of logistics sectors depend on to joint to different logistic projects such as the New Great Silk Road, TRACECA and others are automatically positively influences the sustainable development economy, social - economy, tourism, communication, investments climate and etc. Using the logistics potentials and logistics' corridors the states can make it to the main engine to relations and economy of the state. Implementation and mechanism of common policy are the interests of the stakeholders, privet sectors and all the Turkic Speaking States.

The current logistics development program for the Turkic Speaking State is as an impressively tool for all parts of economy such as increasing trade over, fast exchange national and international currencies, opens new jobs, development IT, and growths cultural and other communications. The main focuses of this article are the development trade over and logistics potential of those countries to one tie and role of Azerbaijan in this economy union. Approaching to logistics sectors as non – raw and non – petroleum is outstanding influence to all the State economy. Logistics and transports sectors of economy are one of the progressively fast income sectors.

**Research methods.** In this article has been used different research methods and programs such as Eviews Application Software Package for econometric modeling, the Darbin-Watson and Fisher statistic (Fstatistic) statistic for determining the logistics opportunity of Azerbaijan and finding the role among the Turkic Speaking States.

Literature Review. The author used logistics program of the states, development and statistics data of those implementation accepting logistics policy, attracting investing to this economic field, economy liberation to logistics sector, Logistics Performances Index of the Turkic Speaking States, historical and future perspectives, articles of professors. In this article author describe the measurement of the development of the logistics sector using different econometric models.

## About the States, the Natural Resources and trade over between them

Political reasons: Nowadays, the independence of Turkic states is Turkey, Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan and Kyrgyzstan. The location of those countries on the Great Silk Way and their large-scale coverage play an important role in the formation of union of these countries on the Eurasian continent and in the world economy.

[22; 23].

Table 1

No.	Turkic states	Area	Population
1	Turkey	783 562	83,424 615
2	Azerbaijan	86 600	10,023 320
3	Kazakhstan	2 724 902	18,513 930
4	Uzbekistan	448 969	33,589 650
5	Turkmenistan	488 100	5,941 090
6	Kyrgyzstan	199 949	6,456 900
	Total	4 732 082	157,949 505

All of these reasons kick off all those countries to create political and economic alliance. In the capital of Azerbaijan, Baku was established the Parliamentary of Turkic States in 2009. The first members of assembly were Azerbaijan, Turkey, Kazakhstan and Kyrgyzstan. The main purpose of this organization is to tie in political, scientific and economic areas among Turkicspeaking peoples and to demonstrate unity in the international organizations [9].

## Economic potential of the Turkic – Speaking countries

Economic potential of the Turkic –Speaking countries is promising. The Turkic – Speaking countries mainly are Turkey, Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan and Kyrgyzstan.

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Kazakhstan is the biggest countries among the Turkic – Speaking countries with big economical potentials. Economic growth of Kazakhstan noticeable since 2015 [12]. The economic crisis in the world affected the Kazakhstan national currency negatively, so as a result of the crisis the potential of the country decreased. The economy of Kazakhstan got power from 2016. The result of its country shipped US\$57.7 billion product in 2019. All this economy actions increased rate of tenge 26% against the US dollars but almost 5% dropped from 2018 to 2019 [20].

According to information of 2019, the GDP of Kazakhstan is 180 billion USA dollars. The economy of the country is highly dependent on oil and gas products almost 67% (US\$38.7 billion) of total exports. The other 33% of export products are ferrous metals, copper, aluminum, salt, sulphur, stone, cereals, zinc and uranium are the list of the export product. Italy, Chine, the Netherlands, Russia and France are the top of export partners. What about the Turkic states?

Uzbekistan made a huge income in export products especially oil, gas and gold. Uzbekistan made huge dollars in export product during 2019 [13]. Furthermore, Uzbekistan has a great opportunity in inorganic chemicals which grow up almost 300% in 2019, precious metals (silver and gold) via a 68.9% gain, and the last one is copper which increased approximately 28%.

The country is also the second largest cotton exporter in the world. The top of countries of product exports we can find Turkic states such as Turkey and Kazakhstan. The GDP of the country is 57.92 billion USD.

In comparison to Kazakhstan and Turkmenistan, the Kyrgyzstan does not have any direct access to the world economy depends on gold and stones which 34% of export [14]. Export countries for Kyrgyzstan are the United Kingdom, Kazakhstan, Russia and Uzbekistan. Furthermore, the country has economic partnership with China, Turkey, Turkmenistan and Afghanistan to whom Kyrgyzstan exports raw materials, consumer goods, animals, metals and other products.

Turkmenistan is one of the richest countries of natural gas resources in the world. The natural gas takes the main part of export economy of country but oil, cotton, polymers, textiles and vegetables also in export list product. All of these products make 40.76 USD billion in GDP. Turkmenistan exported US\$9.9 billion in 2019. It shipped 93% of product to Asia and 7% to Europe continent. Vegetables, plastics and textiles are the fastest grower export products in Turkmenistan in 2019 [10].

The main export partners are China, Turkey, Italy, UAE, Iran and others. Turkey is the main figure among the Turkic Speaking States. Turkmenistan exported 186 billion USA dollars products or other raw material (especially oil and oil products), and imported 253 billion USA dollars final goods. Economics relations are not so strong between Turkmenistan [15].

Azerbaijan is one of the small countries among Turkic Speaking States but with huge potential. Strategically location of Azerbaijan is on the intersection of southwestern Asia with southeastern Europe north of Iran and south of Russia makes country multifunctional economy traders. Using location potential Azerbaijan sold US\$19.6 billion of products, goods and services around the world in 2019 [16] Despite the Azerbaijani national currency lost -65.9% values against the dollar in 2015, the government of country started to implement economy plans for increasing economy activity. The GDP of the country is 48.05 USD billion. The main export product of state is oil and natural gas but sugar, fruits, metals and polymers also in the export list. Azerbaijan has a great potential in three products, the first one is plastics industry (it has grown up by 51.3% from 2018 to 2019), the second is gold (46.4%) and the last on is cotton (value up by 46.3%) [10].

Italy, UK, USA, Israel and Indonesia are on the top of the export list. Azerbaijan has a good economic and political relationship with Turkey and Kazakhstan.

Azerbaijan exported to Turkic Speaking States raw material, natural gas, fuels, intermediate goods, metals, mach and elec, food products, vegetables, stone and glasses, plastics or rubber, chemicals and other products.

Turkey passed a long and great way until 2019. The National currency of Turkish lira depreciated by -106% against the US dollar in 2015 [17]. It exported 100 named goods within US\$117.1 billion. GDP of Turkey grew up to \$2.347 trillion in 2019. The fastest grown products for exporting were refined petroleum oils, plastics and computers [10].

The main exports products are: 31% is machinery and transport equipment, 25% is manufactured goods, 18% is miscellaneous manufactured articles, food and live animals are 9% and gold and non-monetary is 4% percent. Germany, the UK, the UAE, Iraq and the US are the main export partners of Turkey. Now we have to check economical relation among Turkic states from Turkey position.

#### The role of Azerbaijan among Turkic Speaking State in the international logistics corridors aspect

Started from the Soviet period road and transport system of the Central Asia region has developed. This was the part of economy politics USSR to integrate countries one economy project. Six of countries of the Central Asia China, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Uzbekistan and Azerbaijan, started to join the Central Asia Regional Economic Cooperation (CAREC). It is part of "New Silk Road" project which will connect Europa and Asia through Turkey, bypass of Russia. Most of those countries have not direct access to the open sea. The distance of landlocked CAREC members to the closest seaport is Azerbaijan 800 km, Kazakhstan 3750 km, Kyrgyzstan 3600 km, Mongolia 995 km, Tajikistan 3100 km and Uzbekistan 2950 km [11].

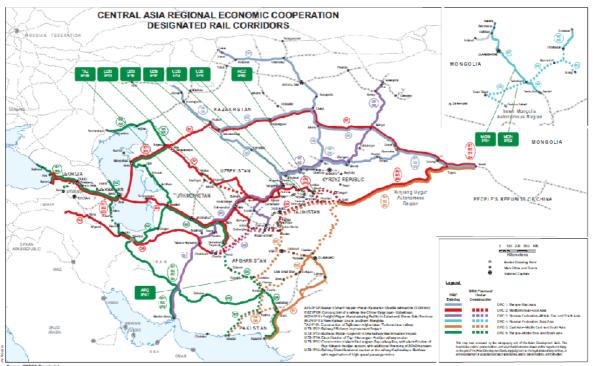


Fig. 1. Central Asia Regional Economic Cooperation [3]

The main contact between Azerbaijan and Central Asia is a water transport system, especially with the Caspian Sea. It has direct maritime connections to other Caspian littoral states: Russia, Azerbaijan, Iran, Turkmenistan and Kazakhstan. The maritime connection regularly works with Azerbaijan International port Alat, Aktau Kazakhstan and Turkmenbashi Turkmenistan. Azerbaijan has reconstructed Alat Internatioanl Seaport. But the Caspian Sea has some problem with deepness the maximum of loan is 6000 tons [11].

An extraordinary Summit of the Turkic Council was held through videoconference on the 10 of April 2020. The President of Azerbaijan was chairman of the Cooperation Council of Turkic-Speaking States. The aim of the videoconference was economic situation during the coronavirus pandemic period [18].

The President of Azerbaijan Mr. Ilham Aliyev highlighted good political and economic relationship between the Turkic-speaking States. Every economy scales trade relations of the country on the import-export operation. On this side, Azerbaijan plays strong role on economy partner on logistics and transit operations between Turkey and Central Asia. The main core of this relation plays mutual cooperation and good relations. The President noted that almost 180,000 tons of product and goods were transported from Central Asia to Turkey and back via Azerbaijan in the first quarter of 2020. It was huge progress because it was 40.000 tons at the same time as 2019.

The President of Turkmenistan emphasized that East-West logistic corridor plays a reliable role among the Turkic-Speaking States and especially the ferries between Baku and Turkmenbashi ports are carried most of the passengers and medical goods [21]. At the end, the President of Azerbaijan once more said the aim of this online meeting was to develop and support a relationship between the Turkic-speaking States during the pandemic time.

One of the main logistics project for Turkic Speaking States is Zangazur logistics and transport corridors which will pass the south part of Armenia. This agreement has been achieved after 44 days of the second Karabakh war which was finished of victory of Azerbaijan army and capitulation of Armenia. The Zangazur logistics and transport corridor will be the second traffic between Europe and Asia trough Azerbaijan. This project is the part of CAREC project [7].

As already mentioned, logistics not only provides cultural, religious and economic ties between countries on freight and passenger transportation, but also stimulates domestic economic activity. From the point of view of research, the opening of several questions would have increased the coherence of the research. These questions are mainly to determine the impact of the relationship between increased revenue, costs and transportation in the logistics sector in the country. In this regard, the database presented in Table 2 will be used.

As we can see from Table 2, freight transport have been steadily growing since 2007. This is not a coincidence, because Azerbaijan has begun special attention for development of this strategic plan to achieve the goals since 2006. Based on the given data and define we can apply and modeling of economic mathematical models.

Statistical indicators on transportation in the transport sector [8]										
Years	Revenue from freight transportation in the transport sector, thousand manats (YDEEINCOME)	Expenditures on freight and passenger transportation in the transport sector, thousand manats (YDCCOST)	Cargo transportation in the transport sector, 1000 ton (NSYTRANSPORTATION)							
1995	162 034	152 576	42 020							
1996	164 783	183 279	41 331							
1997	178 543	228 718	46 348							
1998	235 608	255 538	55 029							
1999	229 688	286 457	67 735							
2000	241 000	284 038	80 180							
2001	262 464	293 445	92 648							
2002	285 512	307 799	98 445							
2003	359 775	364 113	110 001							
2004	383 518	455 905	117 314							
2005	430 074	525 252	128 328							
2006	571 200	679 519	145 596							
2007	1 746 184	1 010 084	167 533							
2008	2 068 242	1 211 689	183 093							
2009	2 409 731	1 169 344	190 372							
2010	2 543 135	1 248 354	196 452							
2011	2 645 666	1 411 122	203 586							
2012	2 638 641	1 561 089	210 862							
2013	2 728 269	1 839 606	217 926							
2014	2 811 232	1 990 343	221 991							
2015	3 089 355	2 136 400	222 373							
2016	3 775 392	2 583 043	222 461							
2017	4 452 895	3 407 283	226 419							
2018	4 871 247	3 902 532	230 144							
2019	5 125 582	4 009 754	235 288							

Statistical indicators on transportation in the transport sector [8]

First of all, let's determine the impact of the costs of freight and passenger transport to the transport sector. For this reasons, interrelated econometric models have been studied in the following forms.

$$LOG(YDEEINCOME) = C(1) + + C(2)*LOG(YDCCOST) + u,$$
(1)

here *YDEEINCOME* – income from freight transportation in the transport sector; *YDCCOST* – costs of freight and passenger transportation in the transport sector; u – shows random deviations. C(1) and C(2) are the parameters of the model (1) finding the parameters of regression equations and checking the adequacy of the purchased models was carried out in the Eviews Application Software Package using econometric modeling methods.

Revenue from freight traffic in the transport sector is a semi-arithmetic trend model (2) regression equation in Table 2 was econometrically assessed based on the data. The results of the evaluation in the Eviews system were as follows:

LOG(	YDEEINCOME) = -2.78548579158 +	
	+ 1.21798561158*LOG(YDCCOST);	(2)
	(0, (40170)) $(0, 047500)$	

S.S.	(0.648179)	(0.04/588)
t-test:	(-4.297404)	(25.59449)
p- probability:	(0.0003)	(0.0000)
$R^2 = 0.966081;$	$R^{2*} = 0.964606;$	DW = 2.546438.

1. The statistical characteristics of the model and the relevant tests show that the model is adequate (here: addition 1).

Table 2

Thus, the standard errors of the parameters are much smaller than the values found by the method of smallest squares. Coefficient of determination (R<sup>2</sup>) and the modified determination coefficient (R<sup>2\*</sup>) prices are quite close, Fisher Statistics (F-statistic) The price is satisfactory, which indicates that the coefficient of determination is significant.  $R^2 = 0.966081$  The presence of freight and passengers in the transport sector shows that (YDCCOST) income from freight transportation in the transport sector (YDEEINCOME) explains the change by 96%. The remaining 4% of the change was due to other factors that were not taken into account. The fact that the Darbin-Watson statistic is 2.5 (2 is ideally desirable) indicates that the remainder of the model is not a first-order autocorrelation. This shows that the model is also important for forecasting.

(2) The model shows that a 1% increase in freight and passenger spending in the transport sector increases revenue from freight transport by 1.22%.

Now, another point of interest in the study is to determine the impact of freight in the transport sector on revenue from freight in the transport sector. For this purpose, interrelated econometric models have been studied in the following forms.

#### LOG (YDEEINCOME) = C(1) ++ C(2)\*LOG (NSYTRANSPORTATION) + u, (3)

here, YDEEINCOME income from freight transportation in the transport sector, NSYTRANSPORTATION volume cargo of transportation in the transport sector, u - shows random deviations. C(1) and C(2) are the parameters of the model (3) finding the parameters of the regression equations and checking the adequacy of the obtained models was carried out in the Eviews Application Software Package using econometric modeling methods.

Revenue from transportation in the transport sector is regenerated econometrically based on the data in Table 2 of the regression equation of the semilogarithmic trend model (3). The results of the evaluation in the Eviews system were as follows:

LOG(YDEEINCOME) = -10.1328750982 + 2.02842140109\*LOG(NSY*TRANSPORTATION*); (4)

S.S.	(0.476172)	(0.059664)
t-test: p- probability	(-2.345676) (0.0000)	(12.65781) (0.0003)
$R^2 = 0.944265;$	$R^{2*} = 0.89163;$	DW = 2.426789

2. The statistical characteristics of the model and the relevant tests show that the model is adequate (here: additional 1). Thus, the standard errors of the parameters are much smaller than the values found by the method of smallest squares. The values of the coefficient of determination (R2) and the modified coefficient of determination (R2\*) are very close, the value of the Fisher statistic (F-statistic) is satisfactory, which indicates that the coefficient of determination is significant.  $R^2 = 0.944265$  The presence of freight in the transport sector indicates that (NSYTRANSPORTATION) income from freight transportation in the transport sector (YDEEINCOME)

explains the change by 94%. The remaining 6% of the change was due to other factors that were not taken into account. The fact that the Darbin-Watson statistic is 2.4 (2 is ideally desirable) indicates that the remainder of the model is not a first-order autocorrelation. This shows that the model is also important for forecasting.

(2) The model shows that a 1% increase in freight traffic in the transport sector increases revenue from freight traffic in the transport sector by 2.02%.

# The Logistics Performance of Turkic Speaking States

The main key for getting to be one economic system for Turkic – Speaking States is integration into one logistics system of all those countries. Let's check the performance of all those counties on the Logistics Performance Index. There are six indicators for scaling of The Logistics Performance Index (LPI) on the below mentions [9].

1) Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs;

2) Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology);

3) Ease of arranging competitively priced shipments;

4) Competence and quality of logistics services (e.g., transport operators, customs brokers);

5) Ability to track and trace consignments;

6) Timeliness of shipments in reaching destination within the scheduled or expected delivery time.

According to all above the information we can clearly see Logistics Performance of the Turkic Speaking States (Table 3).

In order to increase the transport, logistics and transit potential of Turkic-Speaking States, it is neccessary to identify the logistics problems and improves opportunities, every component of the LPI (World Bank's) have to be analyze.

Table 3

<b>Overall Logistics Performance Index</b> [9]												1 4010 0	
Country	Code	2018		2016		2014		2012		2010		2007	
Country		score	rank	score	rank								
Turkey	TUR	3.15	47	3.42	34	3.50	30	3.51	27	3.22	39	3.15	34
Kazakhstan	KAZ	2.81	71	2.75	77	2.7	88	2.69	86	2.83	62	2.12	133
Uzbekistan	UZB	2.58	99	2.40	118	2.39	129	2.46	117	2.79	68	2.16	129
Kyrgyz Republic	KGZ	2.55	108	2.16	146	2.21	149	2.35	130	2.62	91	2.35	103
Turkmenistan	TKM	2.41	126	2.21	140	2.30	140	no c	late	2.49	114	no	date
Azerbaijan	AZE	no c	late	no c	late	2.45	125	2.48	116	2.64	89	2.29	111

Among Turkic Speaking State only Turkey has good Logistics Performance Index. LPI of Turkey is also not so strong. The best rank 27 for Turkey was in 2012. It dropped to 47 ranks and score was 3.15 after 6 years. Kazakhstan did huge jump from 2007 to 2018. The score of Kazakhstan was 2.12 and rank was 133 in 2007, but after 10 years it was 2.81 (score) and rank 71. It means that the State of Kazakhstan is interesting to develop of logistics policy. For that reason Kazakhstan interested implementing several different logistics corridors. The first corridor is the route links the country to two of the largest economies in the world—the People's Republic of China (PRC) and the Russian Federation. The second is Baku (Azerbaijan)–Aktau– Beineu–Karakalpakstan–Nukus (Turkmenistan). This route is the strong gate to the Europe for Kazakhstan. Changeable political and economic connect of Russia with the western countries is influence to the business world. The third corridor is Rubtsovsk (Russian Federation)–Semey–Aktogai–Almaty–Shu–Lugovoi– Taraz–Shymkent–Tashkent (Uzbekistan) [1, p. 33-35].

As we can see Kazakhstan plays main logistics role in the central Asia. The common border with Turkmenistan, Uzbekistan and Kyrgyz Republic gives Kazakhstan advantages to be main figure among the countries.

The Logistics Performance Index the next 4 countries (Azerbaijan, Turkmenistan, Uzbekistan and Kyrgyzstan) are not so strong than others. Despite the 4 countries made huge logistics projects and policies for increasing logistics performance index of country [3].

Uzbekistan did great job for creating logistics projects. Uzbeks' government build's a transit hub between Uzbekistan and Afghanistan in 2011. It is the part of the CAREC Programme. The rail link between Hairatan Uzbekistan and the northern Afghan city Mazar-I Sharif is 75 km.

The main step for increasing of logistics performance of Uzbekistan is to construct of high speed train way between Kazakhstan city Turkestan and Uzbekistan's city Tashkent. This rail connection plans to create new jobs almost 22,000 people in tourism sectors. But the COVID-19 pandemic affects to this project [4].

Turkic Speaking States are already connected to one logistics belt. One of the main logistics program for Turkic Speaking States is the Central Asia Regional Economic Cooperation (CAREC) Program. The Program includes a partnership of 11 countries. CAREC program is new logistics corridors for Europe and Asia countries for long term strategic plan. According to CAREC 2030 it will help to connect people, unification on logistics policy and projects, tourism, sustainable development of social and economic platform of countries.

The CAREC program will provide integration of countries. Economic and social programs for countries will support to increase and fasten of business activities, industrial products, international trade relationships, tourism and decreasing of poverty.

One of the main direction CAREC transport corridor is to link between Chines to Europe and Turkic Speaking States (Azerbaijan and Kazakhstan) will play bright role [3].

Sustainable development of logistics sector and corridors positively impact to the environmental, social and economy communications and make chances for increasing mobility of people [2].

## The logistics potential and logistics belt of the Ukraine

Let's clarify the position of the Ukraine in the Turkic Speaking State belt. We have to attend that the Ukraine is door to Europe as Turkey. Geography position, large territory and border with Poland, Hungary, Slovakia and Romania gave to the companies to pass less border and custom to reach cargo to inside of the European Union. Annexation of the Crimea by the Russia Federation and the separating war (Donetsk and Luhansk oblast) in the western part of country obligates to the Ukraine to find out the new logistics route.

The World Bank publishes Logistics Performance Index (LPI) for each country every two year. "Customs"; Infrastructure; "International shipments"; "Logistics competence"; "Tracking & tracing"; "Timeliness" are indicators to assessment of positions country. According to the World Bank publish the Ukraine did some success from 2007 till 2018 (Table 4).

Table 4

Logistics Performance Index [9]

Country	Cada	20	2018 2			2016 20		2012		2010		2007	
	Code	score	rank	score	rank	score	rank	score	rank	score	rank	score	rank
Ukraine	UKR	2.83	66	2.74	80	2.98	61	2.85	66	2.57	102	2.55	73

The LPI uses standard statistical techniques to aggregate the data into a single indicator that can be used for cross-country comparisons.

As we can see the Logistics Performance Index of the Ukraine is stable. The score is variable from 2.55 in 2007 to 2.83 in 2018, only score was 2.98 and it is (2014) higher than other years. The rank of state was also unchagable. The rank was 73 in 2007, after 10 years the rank of the Ukraine is increased to 66 only 2014 it was 61. After analyze all components of LPI, we can clearly see the transport and logistics problems of the Ukraine. The Ukraine already jointed to several international logistic and transport corridors such as Pan-European, Rail CO-Operation Corridors and the European Transport Corridors – Caucasus –Asia (TRACECA) and European – Asia. All those corridors will increase the Logistics Performance Index (LPI) of country.

**Conclusion and Recommendations.** The locations of Turkic Speaking States give them to be the main figures in the Eurasia continent. The economic potential of those countries is huge. More than one

trillions US dollars GDP of countries is not the final achievement of those. Economy relations and political alliance of Turkic Speaking States is necessary for all of them. Export products are less than imports in the Turkic Speaking States. The main part of export products is raw materials, natural resources such as oil and natural gas. Final product and services are not enough for export. Economy relations between the Turkic-speaking are not strong. The first reason is all of them exports raw materials, for that they have to change export point of view (from raw material to final product). The second economic relations between them are not strong, for changing this part economic policy those countries should be integrate. The third is economic diversification and economy liberation of those countries are not enough. The location of Azerbaijan and members of Turkic Speaking States gives strong bridge or link between western and eastern Turkic states. The logistics potential of Azerbaijan should work for increasing of role and economy aim of Turkic world and peace in the Eurasia continent. The Logistics Performance Index of Turkic Speaking States are not so strong; they cannot use own potential. They don't have any common policy for logistics, different logistics

tariffs, not common visa or passport policies. One of the main members of CAREC project is the Ukraine which huge logistics and economic potentials. Logistics Performance Index of the Ukraine is better some of Turkic Speaking States and it make the Ukraine to be main player of this logistics project.

1. To implement unique logistics tariffs and policies for all Turkic Speaking States.

2. Visa and passport rules of all states.

3. Time lost on the costume and border procedures for TIR of Turkic Speaking Sates.

4. To change export products (from raw material to final goods).

5. To control "New Great Silk Road" project.

6. To make economic and political stability.

7. To increase Logistics Performance Index.

The Logistics Performance Index of the States are not good then our expectations. Most of the LPI of them is not high. Only Turkey has high index then others. The position of infrastructure is higher than other State indexes. It explains that Turkey locates close to European Union Market then others and they take account it.

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### Магеррамов С. М. Економетрична оцінка можливостей логістики Азербайджану в умовах відносин з тюркомовними державами

Сучасний світ змінюється дуже швидко з кожним днем. Головною складовою економіки кожної держави є логістичний сектор, який зростає дуже динамічно. Тюркомовні держави знаходяться на історичному Великому шовковому шляху. Загальна територія та населення цих країн складають 4 732 082 км<sup>2</sup> та 157 949 505 чол. Після розпаду СРСР п'ять тюркомовних держав здобули незалежність (Азербайджан, Казахстан, Узбекистан, Туркменістан та Киргизстан), економіка та політика цих держав були змінені на сучасні ринкові правила. Більшість економік цих країн базується на сировині, газі та нафті. Для експорту всієї цієї сировини державам потрібні міцні логістичні системи. Стаття ілюструє економічний розвиток логістичних секторів та торгівлю між тюркомовними державами. Це дослідження допоможе відкрити проблеми та знайти рішення

реалізації логістичної політики для всіх них. Використовуючи потужні та різні фундаментальні бази даних, такі як статистика цих країн, торговельний баланс, логістичні відносини, дати імпорту та експорту, різні методи співвідношення та економічні моделі, міжнародні ресурси та потужна наукова література допомагають описати потенціал економічних відносин та реальні ситуації, перспективи, проблеми та логістичні можливості тюркомовних держав.

Ключові слова: експорт-імпорт, економічний потенціал, логістика, логістичні сектори.

### Maharramov S. Econometric Assessment of Azerbaijan's Logistics Capabilities in Terms of Relations with Turkic-Speaking States

Modern world grows very fast every day. The main arrow of every state economy is logistics sector, which is increasing very dynamically. The Turkic Speaking States are locating on the Historical Great Silk Road. The total of territory and population of those countries are 4 732 082 km<sup>2</sup> and 157 949 505 people. After collapsing the USSR, the five Turkic Speaking States get independence (Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan and Kyrgyzstan), economy and political policy of those states have been changed to the modern market rules. The most of those countries economy base on the raw materials, gas and petroleum. For exporting of all those raw materials the States need strong logistics systems. The article illustrates the economic development of logistics sectors and trade over between Turkic Speaking States. This research will help to open the problems and find out the solution, implementation of the logistics relations, import and export dates, different correlation methods and economic models, the international resource and powerful academic literature help to describe the potential of economy relation and real situations, perspectives, problems and logistics power of the Turkic Speaking States.

*Keywords*: export – imports, economy potential, logistics, logistics sectors.

### Магеррамов С. М. Эконометрическая оценка возможностей логистики Азербайджана в условиях взаимоотношений с тюркоязычными государствами

Современный мир меняется очень быстро с каждым днем. Основа экономики каждого государства – это логистический сектор, который очень динамично растет. Тюркоязычные государства располагаются на историческом Великом шелковом пути. Общая территория и население этих стран составляют 4 732 082 км<sup>2</sup> и 157 949 505 чел. После распада СССР пять тюркоязычных государств получили независимость (Азербайджан, Казахстан, Узбекистан, Туркменистан и Кыргызстан), экономика и политическая политика этих государств были изменены по современным рыночным правилам. Экономика большинства этих стран базируется на сырье, газе и нефти. Для экспорта всего этого сырья государствам нужна сильная система логистики. В статье показано экономическое развитие логистических секторов и торговли между тюркоязычными государствами. Это исследование поможет раскрыть проблемы и найти решение реализации логистической политики для всех. Использование сильных и различных фундаментальных баз данных, таких как статистика этих стран, торговый баланс, логистические отношения, даты импорта и экспорта, различные методы корреляции и экономические модели, международные ресурсы и мощная академическая литература помогают описать потенциал экономических отношений и реальные ситуации, перспективы, проблемы и логистическую мощь тюркоязычных государств.

Ключевые слова: экспорт-импорт, потенциал экономики, логистика, секторы логистики.

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