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EVALUATION OF THE IMPACT OF THE APPLICATION OF INTERNATIONAL PRACTICE ON THE EFFICIENCY INDEX OF CUSTOMS OPERATIONS

Summary

The customs system, which plays an important role in the development of the country's economy at various stages of economic development, has a leading role in the regulation of international trade and economic relations in the modern stage of the globalized world economy. One of the aspects that play a key role in the field of trade facilitation is the development of the transport and logistics system, which plays a key role in the implementation of this system, and at the same time, the improvement of the efficiency of the use of the country's transit potential, the international practice of customs control and customs clearance of containers used in international cargo transportation and those transported with them. improvement of application possibilities, research and analysis of development perspectives are of great importance.

Keywords: Transport-logistics system, customs clearance, international cargo transportation, Eviews-12 application, trade turnover

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Intradaction

In terms of the value of transported goods, sea transport has the largest share in both imports and exports in the last 10 years. Between 2010 and 2019, the share of maritime transport in imports was approximately 62-70%, but in the first three quarters of 2020, its share decreased from 60% to 58.10%. From 2010 to 2018, the sea route increased its share in export shipments. The share of sea transport, which was 51.41% in 2010, reached the highest share in the 10-year period in 2018, and the share of sea transport increased to 63.31% in the mentioned year. While this rate fell to 60.82% in 2019, it reached 59.86% in the first three quarters of 2020. Road transport takes the second place in Turkey's foreign trade transport in terms of value. While the share of road transport in imports showed a decreasing trend in the last 10 years until 2018, it had a share of about 20% in 2019 and the first three quarters of 2020. The year with the highest share in the analyzed period was 2010 with 26.75%.

Analiz

In the analyzed period, the year with the highest share of motor transport in exports was

2010 with 40.88%. In 2010-2018, the share of highways in exports decreased to 28% in 2018. While it increased to 30.36% in 2019, the share of highways in exports in the first three quarters of 2020 was 31.79%. In Turkey's foreign trade activities, in terms of value, air transport ranks third among the types of transport. In the last 10 years, it is impossible to determine a trend in air transport, as well as in sea and road transport types.

While air transport had a share of about 10-16% of imports between 2010 and 2019, it reached a record high of 21.22% in the first three quarters of 2020. In the last 10 years, the share of air transport in exports was around 6-14%. In 2016, the value of air transport in exports was 12.54% based on value, and its share from this province showed a continuous downward trend and reached 7.55% at the end of the third quarter of 2020. [31].

Railway transport is the mode of transport with the lowest share in Turkey's foreign trade. When examined in the last 10 years, in 2011, rail transport received the highest share of imports and exports; In 2011, its share in imports was 1.51%, while its share in exports was 0.93%.

Between 2013 and 2019, the share of railway transport in import and export cannot exceed 1%; In fact, its share in exports was 0.56%, and its share in imports was only 0.44%, showing the lowest indicator in 2017. In the first three quarters of 2020, the share of railway transport in exports, which is understood to be important due to the coronavirus pandemic and which came to the forefront due to its dominance in foreign trade, was limited to 1.07%, and its share in exports was limited to 1.07%. It was 0.80%.

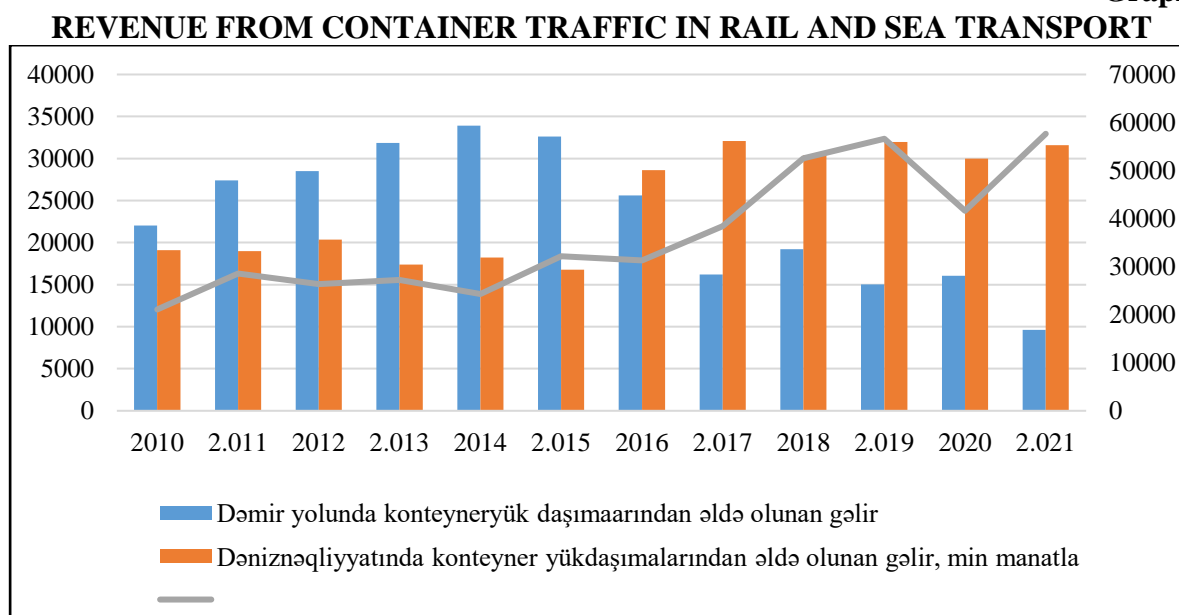
The future activity of the Maritime Transport Fleet will not be enough to effectively use the improvement of container trade. Thus, the Navy's 13 ferry ships can carry 512 containers (40 feet) at a time. By 2020, the expected volume of cargo transportation on the route is 300-400 thousand containers. Currently, the use of ferries for the transportation of containers leads to an increase in prices, so investing in the

construction of container ferries with a capacity of 400-500 containers will lower prices and create a foundation for the development of our economic success.

In the world economic system, orders covering the years 2000-2015 decreased by 48.4% to 95 million dwt, bulkers decreased by 47.4% to 170 million dwt, container ships decreased by 48.7% to 38 million dwt, general cargo ships on the other hand, the deadweight decreased by 81.8% to 3.1 million tons. Since 2001, ships with large capacity have been built in the shipyards of China and South Korea. The largest increase in the order of new ships in all types of cargo transportation by long-distance period in the value of ton*miles between the continents of Asia-Europe-America mainly covered the years 2008-2009.

The increase of revenue from container shipping has a fundamental impact on trade turnover.

Graph 1.



Source: compiled by the author based on the information of assc.

Using graphic data and indicators of foreign trade import and export transactions, the impact of container transportation on trade turnover can be investigated.

It is impossible to import and export goods accepted as a trade subject to the customs territory of the country without contact with customs procedures. Therefore, for the

development of trade, attention should be paid to the efficient functioning of customs authorities. Based on the data of the years 2011-2022, if we make an assessment in the Eviews-12 software package to carry out a regression analysis of the dependence between the trade turnover and the income from container

transportation on sea and rail transport, we will get the following result.

Table 1

Dependent Variable: Y (COMMERCIAL TURNOVER)				
Method: Least Squares				
Date: 06/11/23 Time: 10:10				
Sample: 2010 2021				
Included observations: 12				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X2 (RECOMMENDED_OF_SEA_TRANSPORT_CONTAINER SHIPMENTS)				
X1 (REVENUE FROM RAILWAY CONTAINER CARGO)	172,481	43.96961	3.922735	0.0073
C	142.1782	78.48161	1.811612	0.0035
	21220.07	20421.01	1.039129	0.0043
R-squared	0.701069	Mean dependent var		36490.78
Adjusted R-squared	0.634640	S.D. dependent var		12874.78
S.E. of regression	7782.169	Akaike info criterion		20.96938
Sum squared resid	5.45E+08	Schwarz criterion		21.09060
Log likelihood	-122.8163	Hannan-Quinn criter.		20.92449
F-statistic	10.55363	Durbin-Watson stat		2.215053
Prob(F-statistic)	0.000066			

Source: Developed by the author based on the Eviews-12 application software package.

According to the Eviews-12 application software package, the regression equation will be as follows:

Estimation Command:

```
=====
LS Y (COMMERCIAL TURNOVER)
X2 (REVENUE FROM CONTAINER_TRANSPORT IN MARINE TRANSPORT)
X1 (REVENUE RECEIVED FROM CONTAINER SHIPPING BY RAILWAY)
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C

Estimation Equation:

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=====
Y (COMMERCIAL TURNOVER) = C(1)*X2 INCOME FROM CONTAINER LOADS IN MARINE TRANSPORT)
C(2)*X1 REVENUE RECEIVED FROM CONTAINER SHIPPING BY RAILWAY)
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+ C(3)

Substituted Coefficients:

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=====
Y(COMMERCIAL TURNOVER)= 202.480788099*X2 REVENUE FROM CONTAINER_TRANSPORT IN MARINE
TRANSPORT)
+ 142.17821619*X1_ REVENUE RECEIVED FROM CONTAINER SHIPPING BY RAILWAY)+21220.07
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$$Y = 142,178x_1 + 172,481x_2 + 21220,07, R^2 = 0,635$$

(t) (3,92) (1,81) (1,039) DW=2,215

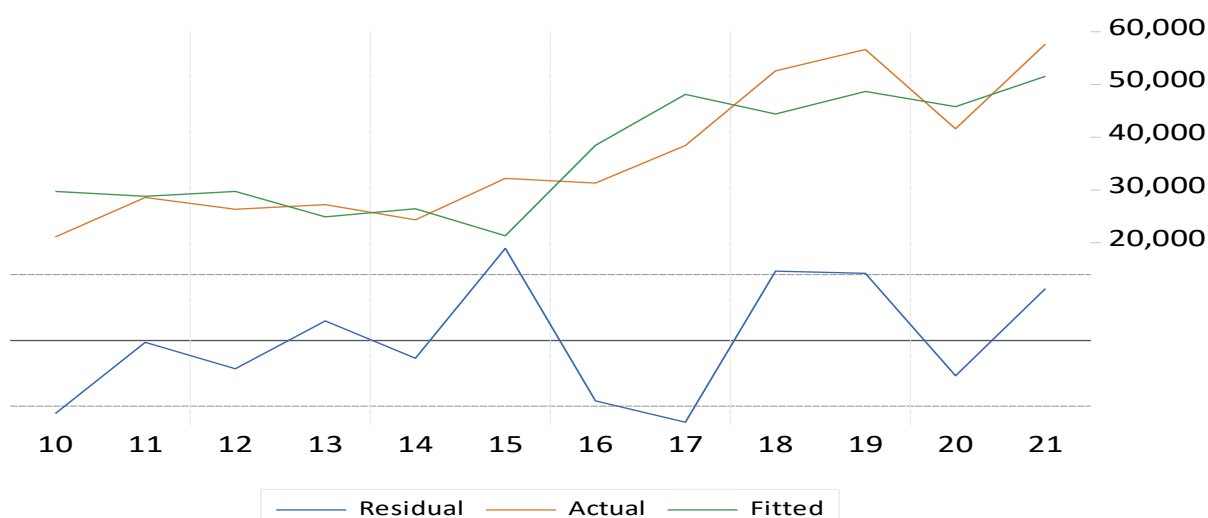
According to the Eviews-12 application software package, it was determined that there is a high correlation between the income from container cargo transportation in railway transport and sea transport in Azerbaijan and the foreign trade turnover of the Republic of Azerbaijan, expressed by the linear regression equation

$Y=142,178x_1+172,481x_2+21220.07$ there is a correlation dependence

The dynamics of the (Fitted) and actual (Actual) values obtained by the regression equation of the model (1.1) built according to the EViews application software package, as well as the residuals (Residual) between them, will be as follows.

Graph 2.

Trade turnover with GDP based on data from 2011-2022



Source: Developed by the author based on the Eviews-12 application software package.

According to the t-statistics, the coefficients of the Explanatory variables (X1 and X2) are statistically significant because the coefficients are greater than the standard error. If we compare the value of F-Fisher criterion, $F_{table}(a; m; n-m-1) = F(0,05;2,9) =$, we get F-Fisher criterion $(10,55) > F_{table}(4,26)$. The obtained comparison shows that the regression equation is generally statistically significant according to the F-Fisher test.

Darson-Watson statistic using the Eviews-12 software package gives $DW=2.215$ with 95% confidence interval, two explanatory variables ($m=2$) at $\alpha=0.05$ significance level and Darson-Watson crisis for $n=12$ observation periods it can be determined that the points $d_l=0.812$, $d_u=1.579$. [2, p. 337]

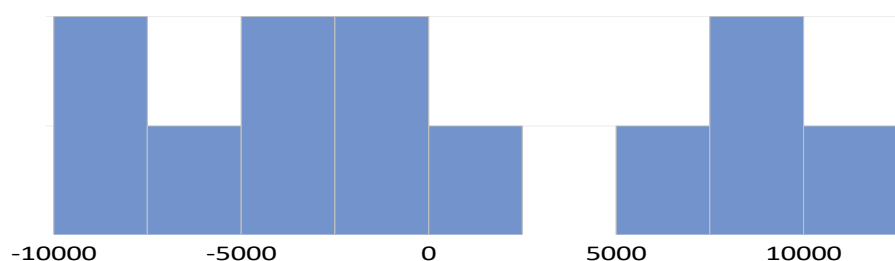
According to the Darson-Watson criteria, if $d_u=1.579 \leq DW=2.215 < [4-d]_u=2.424$,

there is no autocorrelation between indicators. This means the adequacy of the model according to that criterion.

Based on the data of the years 2010-2021, as can be seen from the application software package, it was determined that between the revenue obtained from container cargo transportation in railway transport and sea transportation in Azerbaijan and the foreign trade turnover of the Republic of Azerbaijan, the actual prices received in the EViews-12 application software package and their dynamics of residues. As can be seen from the table data, serial autocorrelation did not cause autocorrelation (Q-statistics) and heteroskedasticity in the residuals. This can also be seen from the histogram normality test below.

Graph 3

Histogram Normality test



Series: Residuals	
Sample 2010 2021	
Observations 12	
Mean	-9.85e-13
Median	-1178.244
Maximum	10886.40
Minimum	-9690.977
Std. Dev.	7039.236
Skewness	0.145148
Kurtosis	1.675086
Jarque-Bera	0.919834
Probability	0.631336

Source: Developed by the author based on the Eviews-12 application software package.

Since the established model is adequate, the elasticity coefficient can be calculated

$$E_{\text{Container cargo transportation in railway transport}} = \frac{\alpha_2 \times \bar{x}_2}{\bar{Y}} = \frac{21,33628 \times 142,178}{36490,78} = 0,083132$$

$$E_{\text{Container cargo transportation in sea transport}} = \frac{\alpha_1 \times \bar{x}_1}{\bar{Y}} = \frac{24,62436 \times 172,418}{36490,78} = 0,11639$$

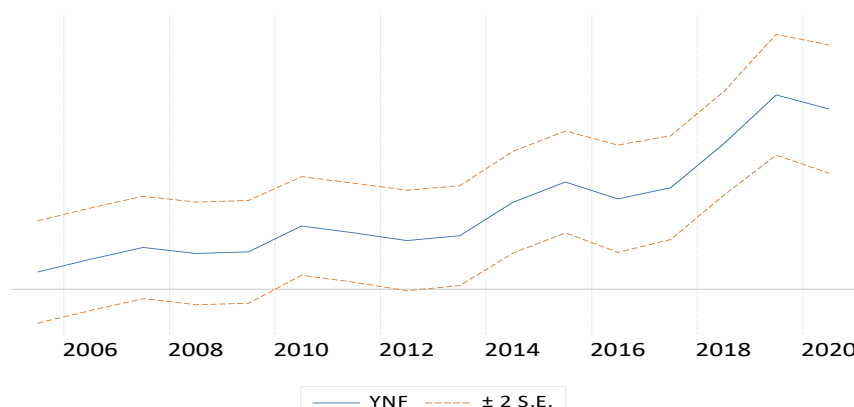
According to the elasticity coefficient, a 1% increase in the income from container freight transportation in railway transport in Azerbaijan results in a 0.08% increase in foreign trade turnover, and a 1% increase in the income from container freight transportation in sea transport results in a 0.11% increase in foreign trade turnover.

According to the EViews application software package, the values of the linear regression equation

$Y = 142,178x_1 + 172,481x_2 + 21220.07$ between the income from container cargo transportation in railway transport and sea transport in Azerbaijan and the foreign trade turnover of the Republic of Azerbaijan for the period covering the years 2010-2022 and standard errors, as well as several characteristics of using the constructed regression equation for forecasting purposes. These can be seen more clearly from the graph below.

Graph 4.

Values and standard errors of the model of trade turnover, as well as the main characteristics of using the equation for forecasting purposes

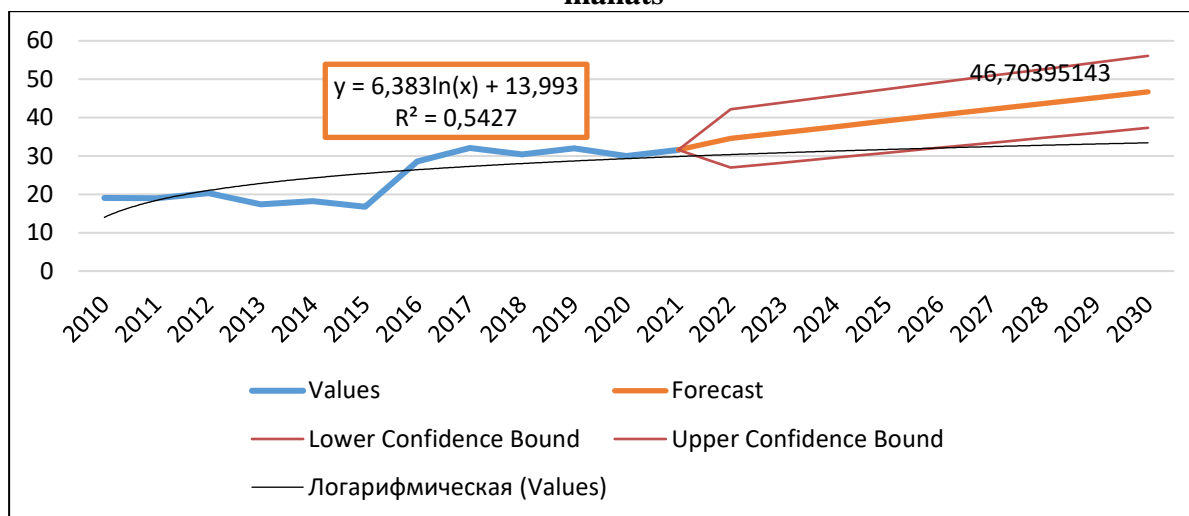


Forecast: YNF	
Actual: YN	
Forecast sample: 2005 2020	
Included observations: 16	
Root Mean Squared Error	44.70392
Mean Absolute Error	32.45297
Mean Abs. Percent Error	24.17109
Theil Inequality Coef.	0.105870
Bias Proportion	0.000000
Variance Proportion	0.035887
Covariance Proportion	0.964113
Theil U2 Coefficient	1.180344
Symmetric MAPE	22.13538

Source: Developed by the author based on the EViews application software package.

Graph 5.

Forecast of revenue from container transportation in sea transport until 2030, in million manats



Source: Developed by the author based on the EViews application software package.

The predictive characteristics of the model indicate its usefulness. In the graph below, according to the trend model, the forecast of the income from container transportation in sea transport until 2030 is given. According to the trend model, it was determined that there is an average correlation dependence between the income from container cargo transportation and the time factor determined by the logarithmic regression equation $y = 6.383\ln(x) + 13.993$. According to forecasts, the income from container cargo transportation in the sea transport fleet will develop with increasing dynamics until 2030 and reach 46.1 million manats in 2030 will be.

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ОЦЕНКА ВЛИЯНИЯ ПРИМЕНЕНИЯ МЕЖДУНАРОДНОЙ ПРАКТИКИ НА ПОКАЗАТЕЛЬ ЭФФЕКТИВНОСТИ ТАМОЖЕННЫХ ОПЕРАЦИЙ

Резюме

Таможенной системе, играющей важную роль в развитии экономики страны на различных этапах экономического развития, принадлежит ведущая роль в регулировании международных торгово-экономических отношений на современном этапе глобализированного мирового хозяйства. Одним из аспектов, играющих ключевую роль в сфере упрощения процедур торговли, является развитие транспортно-логистической системы, играющей ключевую роль во внедрении этой системы, и в то же время повышение эффективности использования транзитного потенциала страны, мировой практики таможенного контроля и таможенного оформления контейнеров, используемых в международных грузоперевозках и перевозимых с ними. расширение возможностей применения, исследования и анализ перспектив развития имеют большое значение.

Ключевые слова: Транспортно-логистическая система, таможенное оформление, международные грузоперевозки, приложение Eviews-12, товарооборот.

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BEYNƏLXALQ TƏCRÜBƏNİN TƏTBİQ EDİLMƏSİNİN ƏMƏLİYYƏTİN ƏMƏLİYYƏTİNƏ TƏSİRİNİN QIYMƏTLƏNDİRİLMƏSİ

Xülasə

İqtisadi inkişafın müxtəlif mərhələlərində ölkə iqtisadiyyatının inkişafında mühüm rol oynayan gömrük sistemi qloballaşan dünya iqtisadiyyatının müasir mərhələsində beynəlxalq ticarət-iqtisadi münasibətlərin tənzimlənməsində aparıcı rola malikdir. Ticarətin asanlaşdırılması sahəsində əsas rol oynayan aspektlərdən biri də bu sistemin həyata keçirilməsində əsas rol oynayan nəqliyyat-logistika sisteminin inkişafı və eyni zamanda, ticarətin səmərəliliyinin yüksəldilməsidir. ölkənin tranzit potensialından istifadə, beynəlxalq yükdaşımalarda istifadə olunan konteynerlərin və onlarla birlikdə daşımanların gömrük nəzarəti və gömrük rəsmiləşdirilməsinin beynəlxalq təcrübəsi. tətbiq imkanlarının təkmilləşdirilməsi, inkişaf perspektivlərinin tədqiqi və təhlili böyük əhəmiyyət kəsb edir.

Açar sözlər: Nəqliyyat-logistika sistemi, gömrük rəsmiləşdirilməsi, beynəlxalq yük daşımaları, Eviews-12 tətbiqi, ticarət dövriyyəsi

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