

## Why Eastern Europe dominates Croatian exports?

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**Abstract.** Exports are a crucial contribution to the competitiveness of post-transition countries. Accordingly, Croatia expresses a need for stronger integration into the world economy. The purpose of this paper is to investigate reasons for which Croatian exporters are most prevalent on the market of Eastern Europe. Deciding on internationalization depends on various factors which are measured by using CAGE (cultural, administrative, geographical and economic) distance framework which identifies cultural, administrative, geographical and economic differences. Two basic goals are set: (i) identify how managers of Croatian exporting companies perceive the degree of export obstacles between Eastern Europe and Croatia in relation to other markets; (ii) empirically and statistically determine the effect of export obstacles in Eastern Europe on the export results of Croatian companies. Research comprises original datasets on attitudes of Croatian managers according to distances between Croatia and Eastern Europe using the CAGE distance framework. Research models, with the export activity of the firm as a dependent variable and the above-mentioned attitudes of managers as independent variables, are created using multiple linear regressions, and a stepwise approach to selecting variables. The results indicate that cultural and geographic differences have no impact on export performance. On the other hand, some administrative differences adversely affect export performance, while economic differences have a positive effect on the share of exports. The fundamental restriction of this research is the cross-sectional approach. Additional insight can be achieved by conducting in-depth interviews which in turn could be the starting point for future research.

**Keywords:** Croatia, export, Eastern Europe, CAGE distance framework, regression analysis

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## 1. Introduction

Previous studies on export activities of Croatian companies were mainly focused

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economic activity [1,2,3,4,5]. Additionally, studies have examined Croatian cooperation with one country or with the European Union [6,7,8]. Also, exports have been observed through statistical analysis of exports results and through the prism of certain current economic problems (e.g., direct investment problems, privatization and Croatian accession to the European Union or the global economic crisis) [9, 10, 11, 12]. Only a small number of papers explore the determinants relating to successful export results of small and medium-sized Croatian companies and their competitive advantage on the wider foreign market [13, 14, 15, 16].

Up till now, studies have shown that a bigger similarity between countries significantly impacts a company's decision on exporting in terms of the management's suppression of risk aversion [17,18,19,20,21,22]. Furthermore, reviewing literature on application of the CAGE distance framework, it was noticed that there are only a few studies in Croatia entailing one or more countries or markets according to this classification model and its impact on export performance [23, 24].

However, as globalization intensifies, internationalization becomes imperative and the flexibility of economies of scale continues to develop. The above trend is especially present in post-transition countries that face underutilized capacities. Therefore, deeper research into the impact of the international environment on business performance exists. Still, previous studies do not define the reasons behind Croatia's major export activities on the (Eastern) European market. Furthermore, there are no studies on a sample involving Croatia in relation to a larger geographical entity.

The aims of this paper are: (i) identify how managers of Croatian exporting companies perceive the degree of export obstacles between Eastern Europe and Croatia in relation to other markets; (ii) empirically and statistically determine the effect of export obstacles in Eastern Europe on export results of Croatian companies. A comprehensive comparative analysis is a solid foundation to identify how managers of Croatian exporting companies perceive the degree of export obstacles between Eastern Europe and Croatia in relation to other markets and how they comprehend the effects on export performance.

The paper is organized as follows. A statistical analysis of Croatian exports of goods and services to Eastern European countries is provided in Section 2. Numerical data provides shows that Eastern Europe dominates in Croatia's international exchange. Section 3 outlines a methodological approach to the research with an emphasis on various methods of metering distance through the CAGE distance framework. The intention was to prove the indicated hypothesis using multiple linear regressions, with a stepwise approach to selecting variables. The research results are given in Section 4.

## 2. Eastern Europe – Croatia’s dominant export market

Croatia’s balance of foreign trade has always been negative. The core economic problems were unsecured production, an unstable export sector, technological backwardness and uncompetitive prices on foreign markets. Though aware of their widespread weaknesses and unhealthy environment, Croatian companies have a high degree of risk aversion [25]. Hence, Croatia has always endeavoured to secure trade with a small number of countries from the region. With so many fundamental problems in its export sector, it is much easier to realize foreign exchange with countries that are close to Croatia rather than to expose itself to unknown risks and uncertainties.

Eastern Europe is a diverse region comprised of 21 countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Montenegro, Czech Republic, Croatia, Georgia, Kosovo, Macedonia, Hungary, Moldova, Poland and Romania, the European part of Russia, Serbia, Slovenia, Slovakia and Ukraine. The stated classification, according to the European Union Glossary, was used in this paper. Each of these countries bears unique features in a geographical, political, cultural and socio-economic sense. Despite present differences, they are unified due to numerous criteria which consequently constitutes great potential. Croatia has always practiced a continuous exchange of goods and services with Eastern European countries. This intensity of cooperation has always been substantial. Eastern Europe occupies a significant share in Croatia’s export with an evident interest in further intensifying cooperation. The most important Croatian export markets are Slovenia and Bosnia-Herzegovina. Other significant markets are Macedonia, Slovakia, Russia, Poland and Serbia. In certain countries, such as Armenia, Belarus, Georgia and Moldova, cooperation has been achieved in recent years (Table 1).

Country	Croatian export to Eastern European countries				Percentage %			
	2010	2012	2014	2015	2010	2012	2014	2015
Albania	60,338	58,213	57,473	67,502	0.68	0.60	0.55	0.59
Armenia	2,008	203	713	1,738	0.02	0.00	0.01	0.02
Azerbaijan	1,889	46,555	11,309	4,165	0.02	0.48	0.11	0.04
Belarus	10,805	8,314	17,291	24,62	0.12	0.09	0.17	0.02
Bosnia and Herzegovina	1,033,936	1,228,917	1,223,664	1,121,339	11.61	12.76	11.80	9.73

	Croatian export to Eastern European countries				Percentage %			
Bulgaria	35,635	30,343	44,887	67,821	0.40	0.32	0.43	0.59
Montenegro	81,365	145,495	127,995	131,389	0.91	1.51	1.23	1.14
Czech Republic	79,996	105,109	159,516	149,590	0.90	1.09	1.54	1.30
Georgia	14,919	1,422	6,072	842	0.17	0.01	0.06	0.01
Kosovo	54,705	68,289	69,725	66,718	0.61	0.71	0.67	0.58
Macedonia	199,839	242,945	359,094	415,342	2.24	2.52	3.46	3.60
Hungary	84,727	97,092	103,682	112,174	0.95	1.01	1.00	0.97
Moldova	1,278	1,275	2,768	1,720	0.01	0.01	0.03	0.01
Poland	89,722	98,373	141,083	177,163	1.01	1.02	1.36	1.54
Romania	61,474	87,781	87,439	131,041	0.69	0.91	0.84	1.14
Russia	175,008	331,159	274,175	193,671	1.97	3.44	2.64	1.68
Serbia	70,412	95,930	152,091	176,189	0.79	1.00	1.47	1.53
Slovenia	697,060	828,232	1,178,160	1,416,886	7.83	8.60	11.36	12.29
Slovakia	349,160	418,232	509,315	562,224	3.92	4.34	4.91	4.88
Ukraine	31,986	41,473	42,639	11,915	0.36	0.43	0.41	0.10
Total	3,136,265	3,935,353	4,569,091	5,650,467	35.22	40.87	44.07	41.77

**Table 1:** Exports of Croatian goods to Eastern European countries in the period from 2010 to 2015 (in thousands of EUR) and the percentage of their share in Croatian total exports [26]

Year	Arrivals			Nights		
	2010	2012	2014	2010	2012	2014
Number of Eastern European tourists	3.328	3.617	3.794	20.289	22.148	22.668
Percentage, %	36,53	34,88	32,64	39,79	38,50	36,96

**Table 2:** The number of arrivals and overnight stays by Eastern European tourists in the period from 2010 to 2014 (in thousands) and their share in the total foreign tourist arrivals and overnight stays [27]

Tourism is the main bearer in terms of Croatian exports of services. Tourists from Eastern Europe achieved a total of 3.79 million arrivals and 22.67 million overnight stays. Their share in the total number of arrivals total overnight stays in Croatia in 2014 was 32.64% and 36.96%, respectively (Table 2). According to current public statements, the upward trend continued in 2015 and 2016 and has, to date, reached a record high when it comes to demand from Eastern European tourists.

Despite acceptable current levels of cooperation, according to research conducted by the Croatian Chamber of Economy, all Eastern Europe countries have expressed interest in improving commercial trade in Croatian goods and services. However, the quality of the Croatian industrial sector lags significantly. Companies in Croatia are not able to provide sufficient quantities of products and services in demand. Therefore, Eastern European consumers are directed to other markets. A particular problem is evident with products that have a high added value, as well as with public infrastructure projects and energy sector [28].

### 3. Methods

#### *Data*

The CAGE distance framework is a phrasal framework used for estimating diversities among countries. According to the CAGE distance framework, comprehensive analysis has been conducted using the CAGE Comparator, an official online tool which incorporates 16 types of Cultural, Administrative, Geographic, and Economic (CAGE) features. It contains data on 163 countries and 65 industry groups [29]. Cultural (religion and language), Administrative (trade agreements) and Geographic (distance, land area, population, time zone and climate zone) data were observed using the CAGE comparator, whereas economic indicators were collected from other sources.

*Cultural differences* are also observed using indicators of governance and development: The Human Development Index (HDI), Voice and Accountability (VA) and the rule of law. The HDI was first defined in 1990 as part of the United Nations Development Programme (UNDP) for comparing countries with the aim of evaluating average achievements in basic human development. The HDI highlights the importance of human factors, in particular the human ability to assess the development of a country. It does not base a country's development solely on economic growth [30]. The index measures a country's average achievements across three basic dimensions: a long and healthy life, access to knowledge and a decent standard of living for its citizens. This indicator represents a comprehensive measure in evaluating per capita income. It has four degrees of value: very high, high, medium and low. The classifications, in fact, are not absolute, but depend on each country's results throughout every year. Based on the HDI, countries are classified as developed countries (first order countries),

developing countries (second order) and third order countries [31]. VA includes the degree to which citizens participate in selecting their government, freedom of expression, freedom of association and a free media. The rule of law denotes a system of political power based on respecting constitutions, laws and other regulations. Special emphasis is placed on contract compliance, proper functioning of public services and the degree of crime and violence. The value interval of both dimensions varies between -2.5 and 2.5, where higher values correspond to better governance outcomes [32]. Data on human development were acquired from United Nations Development Programme and Transparency International.

*Administrative differences* were obtained based on corruption indicators, more specifically, the Corruption Perceptions Index which ranks countries according to the level of corruption in a country's public sector. Calculations were performed by Transparency International – a community with more than 100 locally based independent organizations that fight corruption in their own countries. It is a composite index, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions. The score ranges from 0 = highly corrupt to 100 = very clean [33]. *Geographic differences* have been analysed based on topographic characteristics and the geographical surface. *Economic differences* are mainly manifested through income. However, for this research, the distribution of wealth and relative purchasing power has also been taken into account. Data on the Eastern European economy (GDP per capita of each country in 2014) was acquired from the World Bank, while Croatian statistical data, published by the Croatian Bureau of statistics, was used.

#### *Research instrument*

Croatian companies, which achieved international exchange according to the Register of Exporters available at the Croatian Customs Administration, comprised the target population. Given the uneven distribution due to the size of companies, systematically stratified random sampling was applied. The sample was based on criteria from the Accounting Act, i.e., number of employees and total income before taxation. The study was conducted on a sample of 30 small, 38 medium and 62 large export enterprises in Croatia.

Dimension	Code individual variables	Code common variables	Description of variables
Cultural differences	CAGE_CULT_1	CAGE_CULT	Language differences
	CAGE_CULT_2		Different religious belief

Dimension	Code individual variables	Code common variables	Description of variables
	CAGE_CULT_3		Differences in social behaviour patterns
	CAGE_CULT_4		Different values
Administrative and political differences	CAGE_ADMI_N_1	CAGE_ADMIN	Closed / non-market economy
	CAGE_ADMI_N_2		The absence of trade union
	CAGE_ADMI_N_3		Foreign exchange differences
	CAGE_ADMI_N_4		Legal system
	CAGE_ADMI_N_5		Political and social conflicts
Geographical differences	CAGE_GEO_1	CAGE_GEO	Geographical distance
	CAGE_GEO_2		Size of the country
	CAGE_GEO_3		Climate differences
Economic differences	CAGE_ECO_N_1	CAGE_ECON	The differences in income
	CAGE_ECO_N_2		The differences in the availability of natural, financial and human resources
	CAGE_ECO_N_3		Limited infrastructure
	CAGE_ECO_N_4		Differences in access to information and knowledge
	CAGE_ECO_N_5		Differences in economic power of the countries

Table 3: The author's research instrument using the CAGE framework - individual and common variables [34]

The research was conducted in the period from February to May 2015 using an online questionnaire. The respondent was the company director, a board member or person in charge of international business. Respondents expressed the extent

to which individual differences are important for their company. The manner in which cultural, administrative and political, geographic and economic differences between Eastern European markets and their companies act as export barriers for undertaking export activities (1 - not at all important, 7 - very significant). The research instrument is shown in Table 3.

#### *Statistical analysis*

Upon completing the research, the collected responses were verified in terms of the organizations that participated in the survey. In addition, information that legitimizes the survey, i.e., the timestamp and identification number of each questionnaire was also checked.

The research was set out from the assumption that obstacles to Croatian export activities, identified within the CAGE distance framework, are less distinct in Eastern Europe than in other markets. In other words, the assumption is that Eastern European countries, in general, are most similar to the Croatian market and that is precisely the reason why Croatian companies are mostly oriented towards Eastern European markets. Therefore, the hypothesis is *H: Fewer export barriers in Eastern European countries, measured by the CAGE framework, have a positive impact on the export performance of Croatian companies on the Eastern European market.*

Research comprised the original datasets on attitudes of Croatian managers according to distances between Croatia and Eastern Europe using CAGE distance framework. Research models, with the export activity of a firm as the dependent variable and abovementioned attitudes of managers as independent variables, are created using multiple linear regressions, and a stepwise approach to selecting the variables.

## **4. Results**

Table 4 shows the descriptive statistics relating to the share of exports to Eastern European countries with respect to the total income of companies - all companies together. The share of exports to Eastern European countries in the total income of enterprises is 15.05%. Large companies are more export oriented and their share of exports in total revenue is higher. However, 68 small and medium-sized enterprises (52.31%) participated in the survey. They are passive or reactive participants in overseas trade. Their income from abroad is smaller, as well as its share in total earnings. Figure 1 shows as histogram of the share of export in Eastern European countries with respect to the total income of an enterprise.



	N	Min	Max	Mean	Std. Dev.
The share of exports to Eastern European countries in total enterprise income	130	0.2	99	15.05	24.47

Table 4: Descriptive statistics of answers by respondents

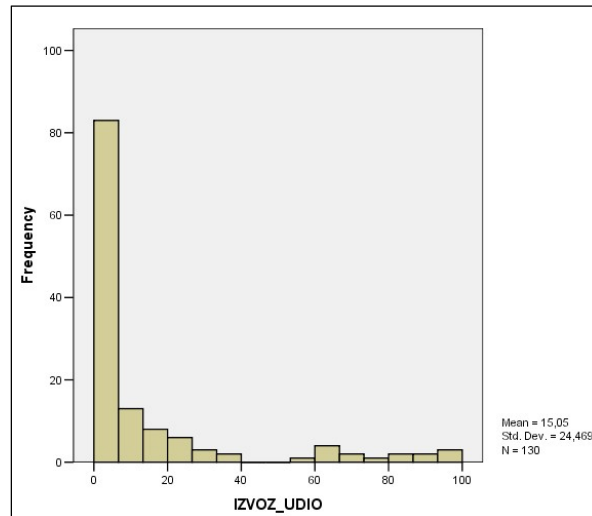


Figure 1: Share of export in Eastern European countries in the total income of all enterprises.

The study included mostly large companies from the manufacturing industry which is the dominant branch of the Croatian economy. The majority of companies are predominantly domestic and privately-owned (87), while a minority are domestic and state-owned companies (4). It becomes evident that independent businesses dominate (111) and that an insignificant number of companies operate as subsidiaries of multinational companies (19).

As a post-transition country, Croatia has an exceptional need to integrate into the world economy; however, it has encountered a number of strategic issues which it has failed to resolve over the years. The narrow base in terms of number of exporters, the strict focus on a small number of proximate markets, unsatisfactory technological development, the unfavourable ratio and low added value of its products and services, backed by a lack of economic and political support, has led to the fact that in Croatia, only 13% of companies are engaged in export activities [35]. Accordingly, every eighth entrepreneur generates revenue from foreign markets [36]. The respondents estimated that the share of exports in total revenue of their company is less than 20%. Thus, this study confirms that Croatian compa-

nies remain at a lower, unsatisfactory level of internationalization and still fail to achieve significant business results on the international market, where better competitors continue to dominate.

Language barriers represent a common challenge in international business relations. It has been proven that if two markets are identical in all aspects, except for the language, business cooperation would be three times more difficult to achieve than in cases where there are no communication differences [37]. Eastern European-speaking countries (except Hungary, Moldova and Romania) belong to the group of Slavic languages, thus there is a great similarity between their languages. Moreover, there are not many religious differences between Croatia and Eastern Europe given that Christianity and Islam are prevalent in that region. Specifically, in 15 countries in question, Christians make up more than 65% of the population, whereas in two countries (Albania and Azerbaijan) the majority are Muslim, with atheists being the majority inhabiting the Czech Republic and Russia. However, although Russia and Czech Republic, according to religious criteria, differ the most different from Croatia, they are highly ranked in Croatian exports (Russia is in fourth and the Czech Republic in sixth place). After examining the migratory movements of Croats in Eastern European countries and immigrants from Eastern Europe to Croatia, people from Bosnia and Herzegovina are dominant. Among other major markets, migration trends in Slovenia and Serbia stand out. Accordingly, these three countries are the top three Eastern European market to which Croatia mostly exports its products and services.

Social behaviour patterns and an adopted system of values have been incorporated into the HDI index, VA indicator and rule of law. Only six Eastern European countries (the Czech Republic, Hungary, Poland, Slovakia, Slovenia), including Croatia, are classified in the highest category (very highly developed countries) according to the HDI index. All other countries are in the second group (highly developed countries), with only Moldova belonging to the category of medium developed countries. Interestingly enough, Russia is classified as a highly developed and not very highly country, which is likely due to the impoverished areas of the northern Caucasus where Islam and terrorism are considerably present. Given that the maximum value is 2.5, Eastern European countries have fairly low indicators of governance and development. Namely, indices of all the respective countries in any measurement do not exceed a value of approximately 1.0. Regarding the VA indicator, it becomes evident that the greatest autonomy is attributed to the inhabitants of Poland, the Czech Republic, Slovenia, Hungary and Slovakia. Croatia is ranked eighth with a value of 0.44, and the VA index of nine Eastern European countries is negative, with Russia at the very bottom, including Azerbaijan and Belarus. The rule of law does not show any significant difference. The top five countries are still Slovenia, Czech Republic, Poland, Hungary and Slovakia while Croatia is in seventh place with an index of 0.19. 13 countries in Eastern Europe have negative Rule of law indicators..

Economists claim that a free trade policy eliminates market distortions. Therefore, political and administrative similarities contribute to strong trade relations between countries. Concurrently, colonial relations contribute to trade growth by more than 900%. Bilateral trade agreements, a common currency and political union enhance trade by more than 300% [38]. The biggest distinguishing criterion between Eastern European countries is currency. Only Montenegro, Kosovo, Slovakia and Slovenia use the Euro as legal tender. Furthermore, all Eastern European countries, with the exception of Georgia, have signed bilateral trade agreements and are members of certain economic integrations. The European Union and the Commonwealth of Independent States trade in Eastern Europe as well as Central European Free Trade Agreement (known as CEFTA). In Eastern Europe, most countries have very low Corruption indexes. Countries with the most corruption are Ukraine (26), Russia (27) and Azerbaijan (29), whereas Poland (61), Slovenia (40) and Hungary (54) stand out as Eastern European countries with lower levels of corruption.

Distinguishing features from a geographical standpoint such as climatic conditions, as well as time constraints are absent. The proximity of most of these countries facilitates international exchange. Reduced costs and time factors are favourable for cooperation in terms of transport. This is reflected in the proportion of Croatian exports in neighbouring countries, i.e., Slovenia, Hungary, Serbia, Bosnia and Herzegovina and Montenegro. These neighbouring countries together participate in the Croatian exports with a share of more than 30%.

Slovenia has by far the highest GDP per capita, almost 25% higher than the Czech Republic, which is positioned second place on the ranking of Eastern European countries. Croatia is also highly ranked in the region, situated in fourth place, just behind Slovakia. According to theories of positive and negative impacts of GDP per capita on international trade relations, the conclusion is that intensive trade with the Czech Republic, Slovakia, Hungary and Poland has been prompted by the purchasing power of consumers and their similar income per capita. On the other hand, despite the fact that GDP per capita in Bosnia and Herzegovina is three times smaller than in Croatia, Bosnia and Herzegovina is ranked second, behind Italy, in total export of Croatia. Significant cooperation can be attributed to insufficient input resources of Bosnia and Herzegovina for which the Croatian market represents a resource-rich economy.

Descriptive statistics of variables indicates that the highest average rating is attributed to the variable CAGE\_ADMIN\_4 (4.531), meaning that differences in the legal system of Eastern European countries, such as corruption and poor regulation, are considered the most serious obstacles to export activities. On the other hand, the lowest average rating is attributed to the variable CAGE\_CULT\_1 (1.992). Differences in language are least present between counties in Croatia and Eastern Europe. Specifically, in terms of cultural differences, the variable CAGE\_CULT\_4 (different values) has the highest average rating (2.954). In

terms of Administrative and Political differences, the variable CAGE\_ADMIN\_4 (legal system) has the highest average value (4.531). With respect to Geographic differences, the variable geographical distance (CAGE\_GEO\_1) has the highest average value (2.954), and the Economic variable CAGE\_ECON\_3 (Limited infrastructure) assumes the highest average value (3.654). The results are shown in Figure 2.

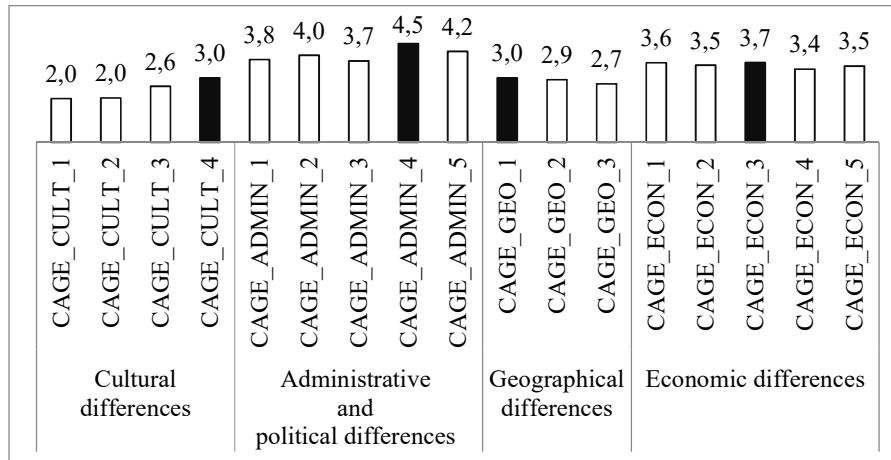


Figure 2: The mean values of particular variables within the CAGE distance framework

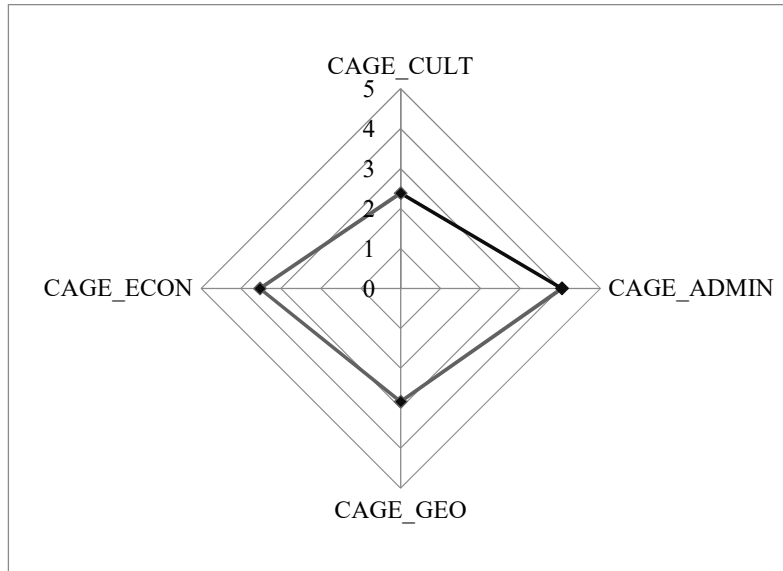


Figure 3: Average values of aggregated variables

Of the four differences, the highest average rating is attributed to Administrative and Political differences ( $CAGE\_ADMIN=4.04$ ), whereas the lowest were Cultural differences ( $CAGE\_CULT=2.39$ ). The results are shown in Figure 3.

Table 5 shows Spearman's rank correlation coefficients for the share of exports to Eastern European countries with respect to total revenue and obstacles to exports based on distinctive CAGE framework differences (common variables). The results reveal that there is a statistically significant positive correlation between variables  $CAGE\_CULT$  and  $CAGE\_ADMIN$  with a 1% probability ( $r=0,490$ );  $CAGE\_ADMIN$  and  $CAGE\_GEO$  with a 5% probability ( $r=0,184$ );  $CAGE\_ECON$  and  $CAGE\_CULT$  with a 1% probability ( $r=0,336$ );  $CAGE\_ECON$  and  $CAGE\_ADMIN$  with a 1% probability ( $r=0,413$ ) and between the variables  $CAGE\_ECON$  and  $CAGE\_GEO$  with a 5% probability ( $r=0,222$ ). On the other hand, it turns out that there is a statistically significant negative relationship between the variables  $IZVOZ\_UDIO$  and  $CAGE\_ADMIN$  with 1% probability ( $r = -0,284$ ).

		ZVOZ_UDIO	CAGE_CULT	CAGE_ADMIN	CAGE_GEO	CAGE_ECON
Spearman's rho	IZVOZ_UDIO	1,000	-,152	-,284**	-,087	,001
	Correlation Coefficient					
	Sig. (2-tailed)		,085	,001	,323	,988
	N	130	130	130	130	130
CAGE_CULT	IZVOZ_UDIO	-,152	1,000	,490**	,153	,336**
	Correlation Coefficient					
	Sig. (2-tailed)	,085		,000	,083	,000
	N	130	130	130	130	130
CAGE_ADMIN	IZVOZ_UDIO	-,284**	,490**	1,000	,184*	,413**
	Correlation Coefficient					
	Sig. (2-tailed)	,001	,000		,036	,000
	N	130	130	130	130	130
CAGE_GEO	IZVOZ_UDIO	-,087	,153	,184*	1,000	,222*
	Correlation Coefficient					
	Sig. (2-tailed)	,323	,083	,036		,011
	N	130	130	130	130	130
CAGE_ECON	IZVOZ_UDIO	,001	,336**	,413**	,222*	1,000
	Correlation Coefficient					
	Sig. (2-tailed)	,988	,000	,000	,011	
	N	130	130	130	130	130

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 5:** Spearman's rank correlation coefficients connection the share of exports to the countries of Eastern Europe in total revenue and export barriers according to CAGE framework: common variables

Model 1: OLS, using observations 1-120					
Dependent variable: IZVOZ_UDIO					
Heteroskedasticity-robust standard errors, variant HC1					
	Coefficient	Std. Error	t-ratio	p-value	VIF
const	20.7931	12.6454	1.6443	0.10284	
CAGE_CULT	2.47985	2.53564	0.9780	0.33013	1.303
CAGE_ADMIN	-7.01998	2.34203	-2.9974	0.00334**	1.420
N				*	
CAGE_GEO	-0.311027	2.57721	-0.1207	0.90415	1.071
CAGE_ECON	4.88938	2.0811	2.3494	0.02051**	1.204
R- squared	0.108241				
Adjusted R- squared	0.077223				

**Table 6:** Regression Model 1 (common variables)

Table 6 shows the Regression Model between the share of exports in total revenue of a particular company and export barriers according to the CAGE distance framework (common variables). It shows that *administrative and political differences* (variable CAGE\_ADMIN) have a significantly negative effect on export, at a probability level of 1% (p-value=0.00334). On the other hand, *economic differences* (variable CAGE\_ECON) have a significantly positive impact with a probability of 5% (p-value=0.02051). The adjusted coefficient of determination shows that the Regression Model explains that a 7.72% deviation

of the dependent variable and VIF (variance inflation factor) coefficients indicate there is no problem with multicollinearity given that all are less than 5.

Diagnostics test	Diagnostics testing	Conclusion
White test	Test statistic: LM = 25.3427 p-value = P(Chi-square(14) > 25.3427) = 0.0313311	The null hypothesis: heteroscedasticity is not present
Breusch-Pagan test	Test statistic: LM = 25.5561 p-value = P(Chi-square(4) > 25.5561) = 3.88818e-005	The null hypothesis: heteroscedasticity is not present
Normal distribution of residuals	Test statistic: Chi-square(2) = 182.414 p-value = 2.45076e-040	The null hypothesis: residuals are normally distributed

**Table 7:** Regression diagnostics for correlation of the share of Croatian exports to Eastern European countries with respect to total revenues and export barriers within the CAGE framework: common variables

Model 2: OLS, using observations 1-120					
Dependent variable: IZVOZ_UDIO					
Heteroskedasticity-robust standard errors, variant HC1					
	Coefficient	Std. Error	t-ratio	p-value	VIF
const	12.886	6.89428	1.8691	0.06411*	
CAGE_ECON_5	4.7216	1.55342	3.0395	0.00292***	1.204
CAGE_ADMIN_5	-3.56086	1.15051	-3.0950	0.00246***	1.204
R – squared	0.143991				
Adjusted R-squared	0.129358				

**Table 8:** Regression Model 2 – stepwise regression analysis

According to stepwise regression analysis as shown in Table 8, it turns out that the variable CAGE\_ADMIN\_5 has a significant and adverse effect on the share of exports, with a probability level of 1% (p-value = 0.00246). *Political and social conflicts* adversely affect the export performance of Croatian companies. On the other hand, the research shows that *the economic power of the state* has a significantly positive effect on the share of exports. The variable CAGE\_ECON\_5, with a probability of 1% (p-value=0.06272), and PROCED\_1, with a probability level of 5% (p-value=0.00292) indicate a positive impact on business performance. The adjusted coefficient of determination shows that Regression Model 2 provides an explanation as to the 12.94% deviation of the dependent variable, and VIF coefficients do not indicate a multicollinearity problem as they are all less than 5.

The assumption of heteroscedasticity for both Regression Models can be rejected. Moreover, the hypothesis of normal distribution of residuals in both cases is accepted (Tables 7 and 9).

Diagnostics test	Diagnostics testing	Conclusion
White test	Test statistic: LM = 6.80388 p-value = P(Chi-square(5) > 6.80388) = 0.235639	The null hypothesis: heteroscedasticity is not present
Breusch-Pagan test	Test statistic: LM = 18.6952 p-value = P(Chi-square(2) > 18.6952) = 8.71734e-005	The null hypothesis: heteroscedasticity is not present
Normal distribution of residuals	Test statistic: Chi-square(2) = 150.646 p-value = 1.93938e-033	The null hypothesis: residuals are normally distributed

**Table 9:** *Regression diagnostics for correlation of the share of Croatian exports to Eastern European countries with respect to total revenues and export barriers within the CAGE framework: stepwise regression analysis*

## 5. Conclusion

The expansion of Croatian companies onto the Eastern European market is a logical consequence of the internationalization of business. Due to geographical proximity, similar cultural patterns and historical heritage, risks posed by problems and threats are easier to identify and control. Therefore, an openness to similar markets in the region is understandable. In addition, developed countries have a much lower growth rate than countries in transition. Hence, Croatian exports should remain directed towards less developed countries – the markets of Eastern European countries. Nevertheless, given the fact that cultural differences largely define consumer preferences, companies providing consumer goods must take into account such differences when developing an export strategy.

All economic organizations and integrations were founded to establish a political community (Parliament), free trade zone, unified customs union and a common market with the aim of harmonizing economic policy through a single economic and monetary union. Consequently, unification has led to a much larger market and serious competition, as well as more opportunities for achieving economies of scale and better use of resources, not to mention significant investments.



However, a high-risk exposure may jeopardise the operations of Croatian companies and, consequently, cooperation with some Eastern European countries (Albania, Montenegro, Ukraine, Russia and Azerbaijan). A high level of corruption and unstable legal systems in these countries present them as unattractive markets and easily exposing companies to jeopardies in doing business. Therefore, improving the quality of legislation and the regulatory environment for a more stable and predictable environment becomes indispensable. This must be carried out in Croatia, and other countries in the region. Accordingly, administrative loads and complexity of administration procedures leads unstable and slow business processes. Furthermore, many state institutions have not adjusted their commerce to business practices in other markets. Reforming administrative systems is essential in order to avoid suppressing competitiveness. Reforms should primarily be a reduction in the number and centralization of various agencies and institutions. Governments should establish a single institution for supporting exports, and this would be a dynamic, technologically superior government agency with experienced and trained employees, and made up of specialized departments for each export market or region.

The baseline hypothesis is as follows: Fewer export barriers in Eastern European countries, measured by the CAGE framework, have a positive impact on the export performance of Croatian companies on the Eastern European market. The results indicate that cultural and geographic differences have no impact on export performance. On the other hand, certain administrative differences adversely do affect export performance, while economic differences have a positive effect on the share of overall exports. Considering these results, the conclusion is that the hypothesis can be partially accepted.

The fundamental limitation of this research is the cross-sectional approach to the research. The data characteristics represent a one-time snapshot of specific data that do not provide insight into long-term integration and interdependent changes. However, due to high costs of longitudinal studies, this approach has been chosen as best practice. Additional insight into the problem could be achieved by conducting in-depth interviews with the surveyed companies, providing a further point for future research.

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