

INTERGOVERNMENTAL DISPUTE AS A FACTOR DETERMINING CONSUMER BEHAVIOR IN THE CROSS-BORDER MARKET

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Purpose: This paper examines the impact of the Polish–Czech intergovernmental dispute over the Turów Brown Coal Mine on consumer activity and behavior in the cross-border market of the Nysa Euroregion, aiming to assess whether a political conflict at the central level translates into changes in everyday consumer behavior in a borderland context.

Design/methodology/approach: The study is based on quantitative research conducted in 2022 among 330 Polish and Czech residents of the Nysa Euroregion. Data were collected using a standardized questionnaire and analyzed using statistical techniques, including factor analysis and structural equation modeling (SEM).

Findings: The results indicate that the intergovernmental dispute had a statistically significant negative impact on cross-border consumer activity. The effect was stronger among Czech consumers than Polish ones; however, in both cases it was relatively weak and temporary, not leading to lasting changes in consumer behavior.

Practical and social implications: The findings suggest that intergovernmental disputes can temporarily disrupt cross-border markets by weakening trust, intensifying national divisions, and limiting everyday economic and social interactions in border regions.

Originality/value: The paper contributes to the literature by empirically demonstrating how a central-level intergovernmental dispute affects local consumer behavior in a cross-border market—an area that remains underexplored in existing research.

Keywords: intergovernmental dispute, cross-border market, Euroregion Nysa, consumer behavior.

Category of the paper: research paper.

1. Introduction

Before discussing the impact of the Polish-Czech dispute over the Turów Lignite Mine (KWB Turów) on consumer activity and behavior in the cross-border market of the Nysa Euroregion, it is necessary to define the very concept of an international dispute. Such a dispute is often defined as a disagreement or divergence of views regarding the actual interests of states and the ways of resolving them (Pawłowski, 2006). In other words, it is a kind of collision of

views concerning factual situations and international norms (Kragiel, 2017; Malendowski, 1996). Such a collision most often arises when one state claims to hold certain rights (e.g., the right to extend a concession for the extraction of a mine operating in the borderland), while another state denies these rights; when one state formulates claims that are rejected by the other; when one state demands certain conduct from another (e.g., the cessation of mining operations), and the latter rejects such demands; or when the actions of a given state violate the rights or interests of another state (Czarnocki, Pietraś, 1988). A dispute thus means that in relations between states (e.g., between Poland and the Czech Republic), specific claims are made by one subject of international law against another. It usually concerns divergences regarding the assessment of legal and political norms, as well as factual circumstances (Cała-Wacinkiewicz, 2011).

An analysis of the literature shows that international disputes arise from the existence of conflicting particular interests of individual states of political, economic, or ideological nature, and most often concern issues such as (Kragiel, 2017):

- violation of state security, including problems related to border traffic and migration control (e.g., the migration issue on the Polish-Belarusian border),
- interference in the internal or foreign policy of a sovereign state, or its political system,
- the delineation of state borders (e.g., the Indian-Pakistani conflict over Kashmir),
- or, as in the case under discussion, the extraction of natural resources.

It should also be remembered that any intergovernmental dispute may stem from one or several of these causes simultaneously, and their escalation often depends on domestic politics, the international balance of power, or current events.

The Polish-Czech intergovernmental dispute over KWB Turów arose in connection with the mining activities of the mine near the Czech-Polish-German border (the Polish part of the Nysa Euroregion). The Czech side, particularly the residents and authorities of the Liberec Region (Cz. Liberecký kraj), expressed concerns that the continued exploitation of the Polish mine was lowering groundwater levels, causing noise and pollution, and negatively affecting the environment and the lives of residents on the Czech side of the border. In 2020, the Czech Republic officially opposed the extension of the lignite mining concession in Turów until 2026. In 2021, it filed a complaint with the Court of Justice of the European Union (CJEU), demanding the suspension of mining operations. As a result, the CJEU upheld the complaint, obliging Poland to immediately cease mining activity. The Polish government, contrary to the decision, decided to continue extraction, which resulted in a record financial penalty of 500,000 euros per day. Despite efforts (mainly by the Polish side), the dispute ended only in February 2022 with the signing of an intergovernmental agreement. Poland committed itself to undertaking compensatory measures, including paying the Czech Republic 45 million euros in compensation (Wróblewski, 2024).

The dispute over KWB Turów was a consequence of unilateral pursuits and viewing one's own interests without regard for the different arguments or interests of the neighbor. Consequently, the realization of particular national interests led to antagonisms and mutual resentment among citizens of both countries. Extensive, often biased commentary on the dispute in national, regional, and local press as well as on social media also translated into situations or disputes at the local level. Analyses by the Institute of Media Monitoring (IMM) indicate that the topic of the Polish-Czech dispute over KWB Turów, between September 2020 and September 2021, was covered nearly 120,000 times by journalists across all types of media in Poland and the Czech Republic, including over 75,000 mentions on social media, where it was discussed by politicians, experts, citizens, and pro-environmental organizations. According to IMM estimates, every Polish citizen over the age of 15 could have encountered information about KWB Turów an average of 72 times in television, radio, press, and online portals, and at least once on social media. In the Czech Republic, these figures were 58 times in traditional media and 6 times on social channels ("The Polish-Czech dispute over Turów").

This raises the question of whether such a widely publicized Polish-Czech intergovernmental dispute translated into changes in consumer behavior in the Polish-Czech cross-border market, particularly in the Nysa Euroregion, where the subject of the dispute – KWB Turów – is located. For the purposes of this study, the Polish-Czech cross-border market is defined as a set of buyers (consumers) and sellers conducting transactions in areas along the Polish-Czech border, on both the Polish and Czech sides. The functioning of this market results from spatial proximity, socio-economic ties, and the institutional framework of cross-border cooperation within the European Union (cf. Wróblewski, 2018, 2019, 2020). The geographical understanding of a cross-border market refers to a territory situated on both sides of the border as a distinct area with similar conditions for making purchases and sales. With regard to the Polish-Czech cross-border market of the Nysa Euroregion, this refers to the territory of the Nysa Euroregion. The classical (economic) understanding of the market reduces the definition of a cross-border market to the totality of exchange relations between sellers offering products (including services) that satisfy needs, and buyers – representing the demand for them.

Despite the growing body of literature on international disputes, consumer ethnocentrism, and cross-border cooperation, empirical studies directly linking intergovernmental conflicts to everyday consumer behavior in cross-border markets remain scarce. Existing research has primarily focused on large-scale trade relations, national-level boycotts, or historical animosities, while relatively little attention has been paid to local border regions where political disputes intersect with routine economic and social interactions. This study addresses this gap by examining how a contemporary intergovernmental dispute concerning the Turów lignite mine—translates into changes in consumer activity in a specific European borderland. By combining survey data from both sides of the Polish–Czech border with structural equation modeling, the paper offers original empirical evidence on the mechanisms through which

political tensions at the central level affect consumer behavior at the local, cross-border market level.

In order to answer the research questions, a Polish-Czech research team conducted a study in 2022 within the project entitled “The Turów Mine Crisis and Its Impact on Czech-Polish Cross-Border Cooperation: Assessment, Conclusions, and Recommendations”. The project was funded by the National Agency for Academic Exchange, based in Warsaw. This article presents selected results of the research conducted.

2. Methods

For the purposes of the conducted research, it was assumed that the dispute concerning KWB Turów (at the central level – between the governments of Poland and the Czech Republic) exerted a significant negative impact on the activity of Polish and Czech consumers in the cross-border market of the Nysa Euroregion. Two research hypotheses were adopted:

- H1: The PL–CZ intergovernmental dispute over KWB Turów had a discouraging effect on the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion.
- H2: The PL–CZ intergovernmental dispute over KWB Turów had a discouraging effect on the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion.

To verify the formulated hypotheses, a survey was conducted in 2022 among 330 consumers – residents of both the Polish and Czech sides of the Nysa Euroregion (the Polish side of the Nysa Euroregion is inhabited by approximately 600,000 people, while the Czech side by about 500,000 – a total of 1,100,000). The appropriate sample size (representative of the entire population of the Nysa Euroregion) was calculated using a sample size calculator, assuming a maximum error of 5% and a confidence level of 95%. Due to the lack of a sampling frame, the survey included consumers residing on both the Polish and Czech sides of the Nysa Euroregion. These were also individuals who were familiar with the dispute over KWB Turów. Considerable effort was made to ensure that the research sample, in terms of such characteristics as gender, age, and education, was as accurate a reflection as possible of the entire population affected by the Turów issue. The study was carried out in the municipality of Bogatynia, and on the Czech side it covered residents of the towns of Hrádek nad Nisou, Chrastava, Heřmanice, Kunratice, and Višňová.

Data were collected using a standardized paper questionnaire. A total of 400 consumers participated in the survey. After verification, incomplete or erroneous questionnaires were discarded, which resulted in 330 correctly completed questionnaires (194 filled in by consumers on the Polish side and 136 by consumers on the Czech side). Women accounted for 58.18% of

the sample, men for 41.82%. The largest group of respondents (27.69%) were aged 45-54, followed by those aged 55-64 (18.46%). The clear majority of respondents had secondary education (54.29%), while 22.09% were individuals with vocational education (see Table 1).

Table 1.
Respondents' personal data

	Metric data	Percentage
Gender	Woman	58,18
	Man	41,82
Age	From 18 to 24 years old	13,85
	From 25 to 34 years old	10,46
	From 35 to 44 years old	16,62
	From 45 to 54 years old	27,69
	From 55 to 64 years old	18,46
	Over 64 years old	12,92
Education	Basic	3,68
	Vocational	22,09
	Secondary	54,29
	Higher	19,94

Source: own research.

The frequency and main reasons for crossing the Polish-Czech border by surveyed consumers – residents of the Nysa Euroregion, with an indication of the purpose of crossing the border – are presented in Table 2.

Table 2.
Main reasons for crossing the Polish-Czech border by surveyed residents of the Nysa Euroregion (% of respondents)

Specification	very often ****		often ***		rarely **		very rarely *		I am not crossing the Polish-Czech border for the stated purpose	
	PL	CZ	PL	CZ	PL	CZ	PL	CZ	PL	CZ
Family/Friends	3,80	0	10,87	7,63	11,41	7,63	7,62	5,93	66,30	78,81
Work	7,07	0	1,09	3,51	1,09	9,65	1,63	3,51	89,13	83,33
Business	1,10	0,88	1,10	5,32	2,20	0,88	6,04	7,08	89,56	85,84
Shopping	1,10	3,28	6,52	24,59	16,30	28,69	26,63	27,05	49,45	16,39
Educational offer	0	0	2,18	1,73	2,73	5,17	1,64	12,93	93,45	80,17
Medical services	0	0	1,10	0	3,82	0,89	8,20	6,25	86,88	92,86
Culture/Entertainment	3,25	0,90	8,70	1,80	11,95	9,01	25,00	27,03	51,10	61,26
Sports/Tourism	8,64	0	15,14	7,02	20,54	21,93	25,95	31,58	29,73	39,47
Travel (transit)	10,5	8,62	14,29	8,62	26,45	19,83	22,75	26,72	25,93	36,21

**** at least three times a week, *** about once or twice a week, but no more than three times a week, ** at least once a month, but no more than three times a month, * about once or twice a year, but no more than once a month.

Source: own research.

The most common reason for crossing the Polish-Czech border among Czech respondents was shopping – nearly 28% of those surveyed used this opportunity very often or often, followed by travel (transit journeys). Polish respondents most frequently crossed the border in connection with international travel (transit) and for tourism-related purposes (sports/tourism).

When determining the impact of the Polish-Czech intergovernmental dispute on the activity of Czech and Polish consumers in the cross-border market of the Nysa Euroregion, it was necessary to define the components of the dimension relating to the Polish-Czech intergovernmental dispute over KWB Turów. These components, formulated as appropriately designed statements, were intended for use in surveys of Polish and Czech consumers. The statements were defined on the basis of information obtained from experts (representatives of the Nysa Euroregion and local government officials involved in cross-border cooperation) during earlier qualitative research (IDI, FGI). As a result, five statements were developed to measure the significance of the Polish-Czech intergovernmental dispute over KWB Turów for consumer activity in the cross-border market of the Nysa Euroregion. The surveyed consumers were asked to indicate the extent to which they agreed with the following statements:

- Q1.1. The dispute over the Turów Mine weakened ties between Poles and Czechs.
- Q1.2. The dispute over the Turów Mine made me stop perceiving the area on the other side of the border as a place I would like to visit.
- Q1.3. The dispute over the Turów Mine made me stop being interested in the problems of neighbors living on the other side of the border.
- Q1.4. The dispute over the Turów Mine made me lose faith in the purpose of further development of Polish-Czech relations.
- Q1.5. The dispute over the Turów Mine made me realize how much divides Poles and Czechs.

These statements were adjusted to a five-point Likert scale ranging from “strongly disagree” (-2) to “strongly agree” (2).

The tendency of surveyed consumers from the Polish and Czech sides of the Nysa Euroregion to engage in activity in the cross-border market was measured by means of six statements developed (similarly to the previous case) on the basis of interviews conducted with experts of the Nysa Euroregion’s cross-border market (six statements referring to consumers from the Czech side of the Nysa Euroregion and six to consumers from the Polish side). The surveyed consumers were asked to determine the impact of the intergovernmental dispute over KWB Turów on local cross-border activity in the following areas:

- Q2.1. Employment of Czechs in Poland / Employment of Poles in the Czech Republic.
- Q2.2. Shopping by Czechs in Poland / Shopping by Poles in the Czech Republic.
- Q2.3. Tourist trips of Czechs to Poland / Tourist trips of Poles to the Czech Republic.
- Q2.4. Cultural trips of Czechs to Poland / Cultural trips of Poles to the Czech Republic.
- Q2.5. Business contacts between Czechs and Poles / Business contacts between Poles and Czechs.
- Q2.6. Czech-Polish social contacts / Polish-Czech social contacts (e.g., between local governments, firefighters, sports clubs, associations, etc.).

All statements were adjusted to a five-point Likert scale ranging from “-2” (definitely negative impact) to “2” (definitely positive impact). The analyses applied a combination of exploratory and confirmatory statistics.

3. Results

3.1. The Impact of the Polish-Czech Intergovernmental Dispute over the Turów Lignite Mine on the Activity of Czech Consumers in the Cross-Border Market of the Nysa Euroregion

In order to estimate the impact of the dispute concerning the Turów lignite mine (at the central level – between the governments of Poland and the Czech Republic) on the activity of Polish and Czech consumers in the cross-border market of the Nysa Euroregion, the analysis first focused on data obtained from Czech consumers. The next step was to identify the factors (dependent and independent variables), which were then incorporated into the SEM model. The procedure began with a reliability analysis for the first question, which consisted of five test items. For this set of items, Cronbach’s alpha reached the value of 0.755. This result is satisfactory; however, further analysis showed that removing item 1.1 would lead to a significant increase in the Cronbach’s alpha value (Table 3).

Table 3.
Cronbach's alpha after removing items

Specification	Position Statistics				
	Scale average after removing items	Scale variance after item removal	Total position correlation	Squared multiple correlation	Cronbach's alpha after item removal
pyt_1.1	9,71	9,334	0,144	0,181	0,826
pyt_1.2	10,72	6,848	0,674	0,528	0,655
pyt_1.3	10,72	6,794	0,616	0,592	0,674
pyt_1.4	10,67	6,847	0,594	0,409	0,682
pyt_1.5	10,19	6,992	0,615	0,398	0,676

Source: own research.

The reliability analysis showed that all items of the summative scale are strongly correlated with it (except for item 1.1). Therefore, in the further analysis, all statements were used except for item 1.1. Ultimately, for the four statements, Cronbach’s alpha coefficient equals 0.826. After eliminating statement 1.1, the Kaiser-Meyer-Olkin (KMO) measure is 0.785, which is a satisfactory result (the expected threshold is above 0.700). Hence, a significant reduction of the redundancy of the input set of four statements can be expected. Bartlett’s test of sphericity verifies the hypothesis that the correlation matrix between the input variables is an identity matrix, which would mean that no hidden factors are present. The result for the analyzed set is 161.443 (p-value < 0.001), which indicates rejection of the null hypothesis. Therefore, it can be

concluded that the use of factor analysis is justified. Table 4 presents the total explained variance for the factor consisting of the four statements.

Table 4.

Total explained variance – four statements

Component	Initial eigenvalues			Sums of squared charges after extraction		
	Total	% variance	% cumulative	Total	% variance	% cumulative
1	2,631	65,779	65,779	2,631	65,779	65,779
2	0,577	14,436	80,215			
3	0,468	11,700	91,915			
4	0,323	8,085	100,000			

Method of isolating factors – principal components.

Source: own research.

Assuming that the analyzed four statements constitute a single factor, it was observed that this factor explains 65.779% of the variability of the input data set. Thus, the reduction of the four-dimensional set to a single latent factor results in the loss of 34.221% of information. Assuming that only those variables should be selected for which the factor loadings exceed the threshold of 0.5 (in absolute value), the final factor loadings matrix is presented in Table 5.

Table 5.

Factor loadings matrix – four statements

Component matrix ^a	
Specification	Component
	1
pyt_1.3	0,861
pyt_1.2	0,814
pyt_1.4	0,799
pyt_1.5	0,767

Method of isolating factors – principal components.

a. 1 – number of separated components.

Source: own research.

The information presented in Table 5 indicates that all four variables have high, positive factor loadings on the analyzed factor, which is a desirable outcome. They show a strong correlation with the created latent factor.

Subsequently, a reliability analysis was conducted for the component measuring the propensity of the surveyed Czech consumers to engage in activities on the cross-border market of the Nysa Euroregion on its Polish side. This analysis was carried out (similarly to the previous case) using SPSS software and the reliability analysis module. The reliability analysis was performed for six test items. For this set of questions, Cronbach's alpha coefficient equals 0.873. The result is satisfactory, and further analysis showed that removing any item would not result in a significant increase in Cronbach's alpha (Table 6).

Table 6.
Cronbach's alpha after item deletion

Position Statistics					
Specification	Scale average after removing items	Scale variance after item removal	Total position correlation	Squared multiple correlation	Cronbach's alpha after item removal
pyt_2.1	15,62	8,291	0,603	0,378	0,863
pyt_2.2	15,60	7,902	0,610	0,412	0,864
pyt_2.3	15,50	7,752	0,777	0,677	0,835
pyt_2.4	15,53	7,537	0,775	0,671	0,834
pyt_2.5	15,69	8,216	0,624	0,411	0,860
pyt_2.6	15,38	7,649	0,678	0,500	0,852

Source: own research.

The reliability analysis showed that all items of the summative scale are strongly correlated with it (above 0.6). Therefore, all analyzed statements should be used in the factor analysis. For the six statements comprising the question, the Kaiser-Meyer-Olkin (KMO) measure of 0.860 indicates that it is appropriate to conduct factor analysis. Similarly, Bartlett's test of sphericity (322.892, p -value < 0.001) leads to the rejection of the null hypothesis that the correlation matrix between the statements is an identity matrix. Table 7 presents the percentage of explained variance.

Table 7.
Total explained variance

Component	Initial eigenvalues			Sums of squared charges after extraction		
	Total	% variance	% cumulative	Total	% variance	% cumulative
1	3,705	61,758	61,758	3,705	61,758	61,758
2	0,678	11,307	73,065			
3	0,541	9,015	82,080			
4	0,487	8,124	90,204			
5	0,383	6,389	96,594			
6	0,204	3,406	100,000			

Method of isolating factors – principal components.

Source: own research.

Assuming that the six analyzed statements constitute a single factor, it was observed that this factor explains 61.758% of the variability of the input data set. Thus, the reduction of the six-dimensional set to a single latent factor results in a loss of 38.242% of information. Assuming that only those variables should be selected for which the factor loadings exceed the threshold of 0.5 (in absolute value), the final factor loadings matrix is presented in Table 8.

Table 8.
Factor loadings matrix

Component matrix ^a	
Specification	Component
	1
pyt_2.3	0,865
pyt_2.4	0,864
pyt_2.6	0,789
pyt_2.5	0,741

Cont. table 8.

pyt 2.2	0,727
pyt 2.1	0,715
Method of isolating factors – principal components.	
a. 1 – number of separated components.	

Source: own research.

The information presented in Table 8 indicates that all variables have high, positive factor loadings on the analyzed factor, which is a desirable result.

To estimate the impact of the Polish-Czech intergovernmental dispute over KWB Turów on the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion, the latent variables were incorporated into a structural equation model (SEM – Structural Equation Modeling). The SEM analysis was conducted based on a factor model estimated using the principal components method, corresponding to the obtained results and the adopted assumptions (developed based on interviews with experts on the cross-border market of the Nysa Euroregion). The developed research model included the factors generated from the conducted analysis. In this model, a path structure was assumed to determine how the Polish-Czech intergovernmental dispute over KWB Turów influences the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion – Figure 1.

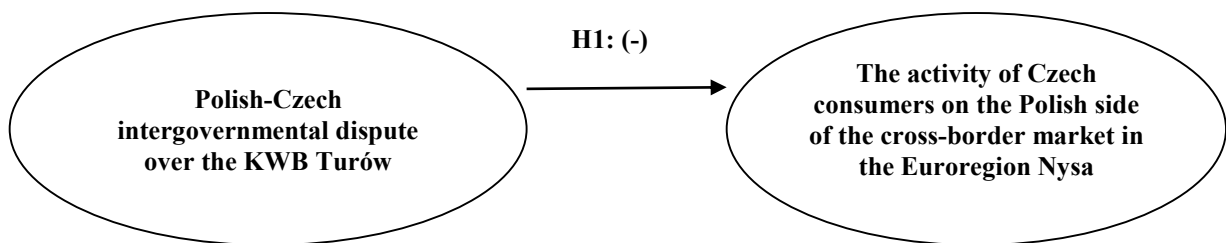


Figure 1. Theoretical model – for Czech consumers of the Euroregion Nysa.

Source: own research.

The first hypothesis (H1) assumes that the intergovernmental dispute over KWB Turów exerted a dampening effect on the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion. In other words, as Czech perceptions of Poles become increasingly negative (a reaction triggered by the PL-CZ governmental dispute), the willingness of Czech consumers to engage in activity on the Polish side of the cross-border market in the Nysa Euroregion decreases. The parameters of the estimated model are presented in Table 9.

Table 9.

Model coefficients – Czech consumers

Specification		Model coefficient	Standardized coefficient	Standard error	t-statistic	p-value	R-squared	
The activity of Czech consumers on the Polish side of the cross-border market in the Euroregion Nysa	<---	Polish-Czech intergovernmental dispute over the KWB Turów	-0,233	-0,360	0,080	-2,907	0,004*	0,129

* statistical significance at the level of 0.05.

Source: own research.

From the information presented in Table 9, it can be concluded that the PL-CZ intergovernmental dispute over KWB Turów has a negative (dampening) effect on the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion. The relationship is statistically significant and moderately strong (at the level of -0.360). Table 10 presents the model fit indices.

Table 10.
Model fit indices

Fit Measures	Value	Status
CMIN/Degrees of freedom	1,399	acceptable
RMR	0,042	acceptable
GFI	0,933	acceptable
AGFI	0,904	acceptable
CFI	0,975	acceptable
RMSEA	0,060	acceptable
PCLOSE	0,329	acceptable

Source: own research.

The values of all fit indices indicate a good fit of the theoretical model to the empirical data. Ultimately, the model adequately reflects the actual structure of the variance-covariance matrix among the analyzed construct components. The path model, along with the estimated (standardized) coefficient, is presented in Figure 2.

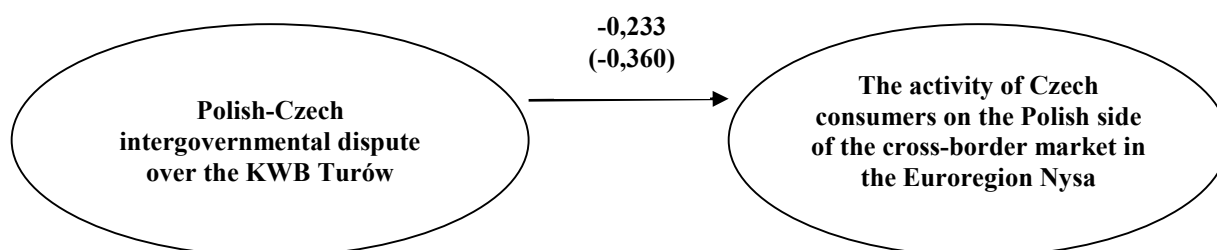


Figure 2. Model with estimated coefficients – for Czech consumers of the Euroregion Nysa.

Source: own research.

It can therefore be concluded that, based on the obtained results, there is no basis to reject the first hypothesis (H1). According to Czech consumers, a higher level of agreement among respondents regarding the negative impact of the KWB Turów dispute on Polish-Czech relations leads to a reduction in the activity of Czech consumers on the Polish side of the cross-border market in the Nysa Euroregion.

3.2. The Impact of the Polish-Czech Intergovernmental Dispute over the Turów Lignite Mine on the Activity of Polish Consumers in the Cross-Border Market of the Nysa Euroregion

Similar analyses (as conducted for respondents from the Czech side) were also carried out for the group of Polish consumers (N = 194). First, a reliability analysis was performed for the first question, which consisted of five test items. For this set of items, the Cronbach's alpha

coefficient was 0.891. This result is satisfactory, and further analysis showed that removing any of the items would not lead to a significant increase in the Cronbach's alpha value (Table 11).

Table 11.
Cronbach's Alpha After Item Deletion

Specification	Position Statistics			
	Scale average after removing items	Scale variance after item removal	Total position correlation	Squared multiple correlation
pyt 1.1	9,66	16,714	0,607	0,898
pyt 1.2	10,38	16,001	0,824	0,848
pyt 1.3	10,10	16,482	0,773	0,860
pyt 1.4	10,37	16,583	0,733	0,868
pyt 1.5	9,70	15,393	0,758	0,862

Source: own research.

The reliability analysis showed that all items in the composite scale are strongly correlated with it. Therefore, all analyzed statements should be included in the factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy at 0.825 indicates that the data are suitable for factor analysis. Similarly, Bartlett's test of sphericity (451.937, p-value < 0.001) rejects the null hypothesis that the correlation matrix is an identity matrix, confirming that factor analysis is appropriate. Table 12 presents the percentage of explained variance.

Table 12.
Total Explained Variance

Component	Initial eigenvalues			Sums of squared charges after extraction		
	Total	% variance	% cumulative	Total	% variance	% cumulative
1	3,528	70,561	70,561	3,528	70,561	70,561
2	0,663	13,262	83,823			
3	0,334	6,677	90,500			
4	0,300	5,999	96,499			
5	0,175	3,501	100,000			

Method of isolating factors – principal components.

Source: own research.

Assuming that the five analyzed statements constitute a single factor, it was observed that this factor explains 70.561% of the variance in the input data set. Thus, reducing the 5-dimensional set to a single latent factor results in a loss of 29.439% of information. Assuming that variables with factor loadings exceeding 0.5 (in absolute value) should be retained, the final factor loading matrix is presented in Table 13.

Table 13.
Factor Loading Matrix

Component matrix ^a	
Specification	Component
	1
pyt 1.2	0,904
pyt 1.3	0,870
pyt 1.5	0,845

Cont. table 13.

pyt_1.4	0,845
pyt_1.1	0,725
Method of isolating factors – principal components.	
a. 1 – number of separated components.	

Source: own research.

The information in Table 14 shows that, for the set of six test items, the Cronbach's alpha coefficient is 0.927. This result is satisfactory, and further analysis indicated that removing any individual item does not lead to a significant increase in the Cronbach's alpha value.

Table 14.
Cronbach's Alpha after Item Deletion

Position Statistics				
Specification	Scale average after removing items	Scale variance after item removal	Total position correlation	Squared multiple correlation
pyt_2.1	17,01	17,500	0,766	0,917
pyt_2.2	16,99	16,424	0,793	0,914
pyt_2.3	16,91	16,721	0,854	0,905
pyt_2.4	16,92	17,029	0,849	0,906
pyt_2.5	17,06	18,414	0,780	0,916
pyt_2.6	16,93	17,829	0,709	0,924

Source: own research.

Assuming that the six analyzed statements constitute a single factor, it was observed that they explain 68.432% of the variance in the input data set. Thus, reducing the 6-dimensional set to a single latent factor results in a loss of 31.568% of the information. Table 15 presents the total explained variance.

Table 15.
Total explained variance

Component	Initial eigenvalues			Sums of squared charges after extraction		
	Total	% variance	% cumulative	Total	% variance	% cumulative
1	4,427	73,787	73,787	4,427	73,787	73,787
2	0,627	10,456	84,243			
3	0,317	5,277	89,520			
4	0,262	4,365	93,885			
5	0,212	3,538	97,423			
6	0,155	2,577	100,000			

Method of isolating factors – principal components.

Source: own research.

Assuming that the six analyzed statements constitute a single factor, it was observed that this factor explains 73.787% of the variance in the input data set. Thus, reducing the 6-dimensional set to a single latent factor results in a loss of 26.213% of information. The final factor loadings matrix is presented in Table 16.

Table 16.
Factor Loadings Matrix

Component matrix ^a	
Specification	Component
	1
pyt_2.3	0,906
pyt_2.4	0,902
pyt_2.2	0,859
pyt_2.5	0,847
pyt_2.1	0,838
pyt_2.6	0,796

Method of isolating factors – principal components.
a. 1 – number of separated components.

Source: own research.

The information in Table 16 indicates that all variables have high, positive factor loadings on the analyzed factor, which is a desirable outcome.

To estimate the impact of the Polish-Czech intergovernmental dispute over the Turów Coal Mine (KWB Turów) on the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion, the latent variables were incorporated into a structural equation model (SEM). The analysis procedure was identical to that used for the Czech consumers. The developed research model included the factors generated from the conducted analysis. In this model, a path structure was adopted to determine how the Polish-Czech intergovernmental dispute over KWB Turów affects the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion – Figure 3.

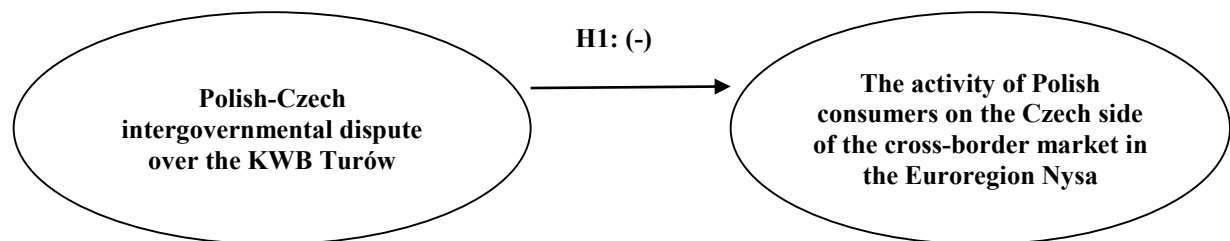


Figure 3. Theoretical model – for Polish consumers of the Nysa Euroregion.

Source: own research.

Hypothesis two (H2) assumes that the PL-CZ intergovernmental dispute over KWB Turów exerted a dampening effect on the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion. In other words, as the negative perception of Czechs by Poles (triggered by the PL-CZ government dispute over KWB Turów) increases, the willingness of Polish consumers to engage in activities on the Czech side of the Nysa Euroregion cross-border market decreases. The parameters of the estimated model are presented in Table 17.

Table 17.
Model coefficients

Specification			Model coefficient	Standardized coefficient	Standard error	t-statistic	p-value	R-squared
The activity of Czech consumers on the Polish side of the cross-border market in the Euroregion Nysa	<---	Polish-Czech intergovernmental dispute over the KWB Turów	-0,218	-0,241	0,080	-2,717	0,007*	0,058

* statistical significance at the level of 0.05.

Source: own research.

The information in Table 17 indicates that the PL-CZ intergovernmental dispute over KWB Turów has a negative (dampening) effect on the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion. This relationship is statistically significant, though weak (at the level of -0.241). Table 18 presents the model fit indices.

Table 18.
Model fit indices

Fit Measures	Value	Status
CMIN/Degrees of freedom	1,183	acceptable
RMR	0,054	acceptable
GFI	0,966	acceptable
AGFI	0,913	acceptable
CFI	0,996	acceptable
RMSEA	0,036	acceptable
PCLOSE	0,663	acceptable

Source: own research.

The values of all fit indices indicate a good fit of the theoretical model to the empirical data. Ultimately, the model appropriately reflects the actual structure of the variance-covariance matrix among the analyzed construct components. The path model, along with the estimated coefficient (standardized coefficient), is presented in Figure 4.

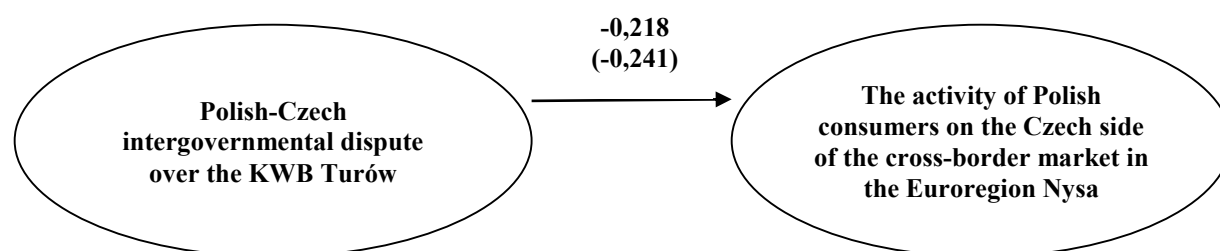


Figure 4. Model with estimated coefficients – for Polish consumers of the Nysa Euroregion.

Source: own research.

Considering the obtained results, it can therefore be concluded that there is no basis to reject the second hypothesis (H2). According to Polish consumers, an increasing consensus regarding the negative impact of the KWB Turów dispute on relations between Poles and Czechs leads to a reduction in the activity of Polish consumers on the Czech side of the cross-border market in the Nysa Euroregion.

4. Discussion

In summary, the results indicate that the Polish-Czech dispute over the Turów lignite mine exerted a discouraging, negative impact on consumer activity in the cross-border market of the Nysa Euroregion, on both the Czech and Polish sides. Among Czech consumers, this impact was moderately strong, while among Polish respondents it was weaker, though still statistically significant. The influence of the conflict on consumer behavior in the region was most evident in the form of increased reluctance toward cross-border trade. Empirical findings (interviews and surveys) suggest that some residents of the Nysa Euroregion avoided crossing the border to the neighboring country to shop or use services during the dispute (Bohm, Nowotny, Kurowska, 2024; Wróblewski et al., 2023). In practice, local entrepreneurs on both sides of the border observed a decline in the number of cross-border customers—particularly in retail and gastronomy. There were also incidental cases of social tension. For example, in the Polish town of Bogatynia, a local councilor distributed leaflets during the dispute, calling on Czech consumers to show restraint in their purchases, arguing that excessive buying of products (e.g., butter, dairy, vegetables, meat) by Czech customers was “leaving Polish families with empty shelves” (blesk.cz, 2022).

The dispute thus became, for some consumers in the cross-border market, a catalyst for negative emotions and a symbol of the “bad faith” of consumers from the other side of the border. Slogans even emerged about a “Czech-Polish war over Polish food,” and insulting labels were used to describe Czech consumers shopping in Poland (“Czech locusts”) (blesk.cz, 2022). Such incidents led to shifts in consumer attitudes and behaviors on both sides of the border—from a simple desire to buy cheaper goods in the neighboring country to defensive and protectionist stances. This is confirmed both by existing literature and by the findings of other scholars. In general, the evidence shows that intergovernmental disputes can have serious consequences at the level of consumer behavior, mainly by undermining trust and increasing uncertainty. In European border regions, political conflicts, disputes over natural resources, and intergovernmental tensions have also been shown to negatively affect cross-border markets, including inducing undesirable consumer behavior. Research on the German-Polish border, for instance, demonstrated that intergovernmental disputes weaken trust in cross-border products and reduce tourism as well as local trade (Schulz et al., 2009).

These mechanisms were also described by Zeugner-Roth, Žabkar, and Diamantopoulos (2015). Their research, conducted in a shopping mall in Japan during the Sino-Japanese intergovernmental dispute over the Senkaku Islands (Chinese name: Diaoyu) in the East China Sea, revealed that during the conflict Japanese consumers’ hostility toward Chinese products intensified significantly, and negative emotions clearly influenced their purchasing decisions. Importantly, the Japanese studies indicate that consumer attitudes worsened due to two mechanisms:

- past-oriented animosity, rooted in collective memory and the history of conflicts and grievances (e.g., Japanese occupation of China in the 20th century), which has long-term effects on consumer attitudes,
- situational animosity, triggered by the ongoing political conflict and media tensions, which can strongly and immediately affect consumer emotions and behaviors.

The Japanese case shows that under heightened interstate conflict, consumers not only declare more negative attitudes toward products from the “enemy” country but also actually reduce purchases of such goods, regardless of their quality, price, or availability. A mechanism of consumer boycott driven by national animosity is at work here. Similar to the findings in the Polish-Czech borderland, in Japan both historical and current animosities significantly reduced consumer willingness to purchase Chinese products, with current, situational emotions having a stronger effect than historical grievances. Once the dispute ended, the level of hostility declined, and consumer decisions and product evaluations returned to more objective assessments, demonstrating the temporary nature of the conflict’s effects.

Proffen and Jürgensmeier (2024) likewise showed that deteriorating relations between the United States and China—caused by technological disputes, accusations by some American politicians concerning the COVID-19 pandemic, as well as the trade war and tariff policies—significantly reduced the number of visits by American consumers to Chinese restaurants in the United States. This phenomenon is linked to consumer ethnocentrism (a tendency to favor domestic products during conflicts) and social pressure to engage in forms of boycott.

The reviewed studies confirm that intergovernmental political and economic disputes can have a clear, though temporary, impact on consumer activity. They highlight the importance of monitoring both historical and current animosities to better understand the mechanisms shaping cross-border market behavior. In the context of the Nysa Euroregion—where social and economic relations were/are strongly influenced by the local dispute over the Turów mine—this points to the necessity of continuous monitoring of public sentiment and implementing mediation activities aimed at improving both current trust and long-term relations between the communities sharing the border.

The relationship discussed in this article aligns with a broader theoretical framework based on social identity theory (Tajfel, Turner, 1979; Wróblewski, 2020, 2024). The Turów dispute reinforced moments of strong identification with one’s national group (especially in the Czech Republic), which increased ethnocentrism and negative emotions toward the out-group. Research on consumer ethnocentrism confirms that ethnocentrism and the related attitudes play a key role in consumer choices (including in cross-border markets), particularly in contexts of tensions and disputes (Shimp, Sharma, 1987; Prince et al., 2020). Thus, patriotic and ethnocentric attitudes can amplify the discouraging effect of intergovernmental disputes, limiting consumer activity in the cross-border market and thereby reducing demand for products from the disputing country (while reinforcing domestic preferences).

The literature further shows that high levels of nationalism and national belonging intensify consumer ethnocentrism—the tendency to favor “one’s own” products at the expense of foreign ones. Balabanis et al. (2001) demonstrated that in societies with heightened nationalism, consumer ethnocentrism tends to rise. Similarly, Balabanis and Siamagka (2022), analyzing data from 57 countries, found that consumer ethnocentrism is a universal phenomenon, driven primarily by cultural factors and the degree of ethnic diversity. Moreover, their findings indicate that high levels of ethnocentrism significantly restrict the import of consumer goods. At the same time, Fernández-Ferrín et al. (2015) emphasize that animosity and consumer ethnocentrism are distinct constructs, each with unique antecedents and consequences for consumer behavior. While historical conflicts foster animosity, ethnocentrism is more strongly influenced by current intergovernmental disputes. For example, Sun et al. (2021) describe how a territorial dispute between China and Japan triggered a nationwide boycott of Japanese cars in China. As a result, the market share of Japanese brands plummeted, mainly to the benefit of Chinese producers and other foreign competitors.

Findings from the Nysa Euroregion study also revealed varying degrees of discouragement among Czech and Polish respondents, with the effect being stronger among Czech consumers. Several factors may explain this. First, the Czech community in the Nysa Euroregion was more sensitive to environmental concerns and perceived threats to quality of life related to the Turów mine. Second, the media and public narratives in the Czech Republic placed greater emphasis on potential risks, further amplifying negative attitudes and limiting consumer activity. Third, cultural and historical factors may have heightened Czech society’s sensitivity to environmental issues, explaining the greater degree of discouragement in their cross-border activity. While environmental sensitivity appears to be a key factor explaining the stronger discouraging effect observed among Czech respondents, it should not be treated as the sole explanatory dimension. Alternative factors may also have contributed to the observed differences between Polish and Czech consumers. One such factor is purchasing power, as Czech households in the border region generally exhibit higher average income levels, which may translate into more discretionary cross-border consumption and, consequently, a greater responsiveness to political or social disruptions.

Another relevant dimension concerns media exposure and narrative framing. Czech media coverage of the Turów dispute was often more intensive and framed the issue as a direct threat to national environmental security and local livelihoods, which may have amplified negative perceptions among Czech consumers. In contrast, Polish media discourse tended to emphasize economic stability and employment concerns, potentially mitigating the impact of the conflict on consumer attitudes. Although these dimensions were not directly measured in the present study, they offer plausible complementary explanations that should be explored in future research.

In conclusion, the findings confirm that emotions and group identification play a crucial role in shaping consumer behavior during periods of international disputes. Factors such as ethnocentrism, historical animosities, national identity, and cosmopolitan attitudes can determine the extent to which an intergovernmental conflict influences consumer purchasing decisions in the cross-border market. The comparative interpretation of the findings should also account for broader contextual differences between the Polish and Czech sides of the border. Despite their geographical proximity, the two groups operate within distinct institutional, socio-economic, and cultural contexts that shape consumer attitudes and reactions to political disputes. As a result, the observed asymmetries should not be interpreted as universal patterns of consumer response but rather as context-dependent outcomes embedded in a specific borderland setting.

By adopting this nuanced comparative perspective, the study avoids overgeneralization and underscores the importance of local context in understanding how intergovernmental disputes affect cross-border consumer behavior. This approach strengthens the theoretical contribution of the paper by highlighting that political conflicts do not translate into consumer responses uniformly, even within a single integrated cross-border market.

5. Conclusion

In light of the conducted research, it can be stated that the Polish-Czech dispute over the Turów lignite mine had a clear, though varied in intensity, negative impact on consumer activity in the cross-border market of the Euroregion Nysa. On both the Czech and Polish sides, a reduction in its functioning was observed, which confirms earlier theories and studies indicating that international conflicts generate uncertainty and weaken social trust, temporarily leading to a decrease in cross-border consumer activity. According to previous research on borderlands, the impact of intergovernmental disputes on consumer behavior is a widespread phenomenon, although its intensity depends on the specific features of the region, the nature of the conflict, and the degree of social integration. The results of the study conducted on the Polish-Czech border confirm this general trend, while emphasizing that conflicts concerning natural resources and environmental protection may trigger stronger destimulating reactions in communities that are more environmentally sensitive and more strongly identified with the region.

It is also worth emphasizing that the results of this study have important practical implications. Both governments and local economic actors should take into account that tensions, disputes, and political conflicts can significantly reduce consumer activity in border regions, which in turn affects economic development and cross-border cooperation. In the future, it is therefore necessary to carry out more thoughtful communication activities,

which, instead of escalating the dispute, lead to mitigating its negative effects and building mutual trust among communities sharing a common border.

Despite the significant conclusions that emerged from the study, several of its limitations should be pointed out. First, the research sample was based on the method of voluntary selection of respondents, which by its very nature limits the possibility of full representativeness of the results. Respondents were selected from among the inhabitants of the Bogatynia municipality and several selected Czech localities, which does not guarantee full reflection of the entire population of the Euroregion Nysa, estimated at about 1.1 million inhabitants. Second, the data were collected using a paper questionnaire, which exposes the study to limitations typical of survey methods, such as distortions resulting from the tendency to provide socially acceptable answers or unconscious errors in assessment. Despite careful verification and the rejection of incomplete or erroneous questionnaires, some methodological errors may still have occurred. Third, the study focused exclusively on individuals who were aware of the existence of the dispute over the Turów mine, which may have influenced the selection of respondents and introduced a selection effect. Less engaged individuals or those unfamiliar with the details of the conflict might have perceived and reacted differently, which may have reduced the full picture of the dispute's impact on consumer behavior. Fourth, the operationalization of the components related to the dispute, based on selected statements developed from expert interviews, may not have accounted for the full scope of social and psychological aspects of the conflict's impact. In future studies, the use of qualitative methods or other measurement tools could be considered to provide deeper insight into this issue.

In light of the obtained results and the limitations of the conducted study, further research is necessary in order to better understand the impact of intergovernmental disputes on consumer behavior in European borderlands. It is recommended to carry out longitudinal studies that would allow for the assessment of the long-term effects of political conflicts on consumer activity on both sides of the border. Such an approach would also make it possible to analyze changes over time and identify factors conditioning the durability of destimulating effects. It would be particularly interesting to expand the research to other European borderlands in order to compare the consequences of intergovernmental disputes in different cultural, social, and economic contexts. Such an analysis would allow for the identification of universal mechanisms as well as region-specific conditions. Finally, future studies may also take into account other aspects of the impact of disputes on the cross-border market, such as the influence on investments, entrepreneurship development, or cultural exchange, which would enable a comprehensive understanding of the consequences of intergovernmental disputes for border regions.

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