The War-related Impacts on Tourism in Neighbouring Countries: Poland in the Face of the War in Ukraine

Ewa E. Kiczmachowska

Kozminski University, Department of Marketing, Jagiellońska 57, 03-301 Warszawa, Poland,
e-mail: ekiczmachowska@kozminski.edu.pl, ORCID: https://orcid.org/0000-0002-7336-875X

ABSTRACT

Objective: In contrast to countries directly involved in military conflicts or terrorism, where the impact on tourism has been always reported negatively, the conclusions for neighbouring countries were not entirely unequivocal: they either suffered from the proximity of warfare or benefited from a spill-over effect. The purpose of this research is to assess how war affects tourism in a neighbouring country with regard to the tourism crisis management framework, the fundamental motives framework, and consumer choice theory.

Research Design & Methods: The research was based on quantitative analysis of 29 variables (macroeconomic indicators, international and domestic tourist flows, refugee influx) for the first ten months of the conflict with respect to the hospitality sector in Poland.

Findings: The consequences of the war in Ukraine have not led to a decline in the intensity of tourism in Poland in the short term. The mix of foreign tourist flows combined with no significant effects on domestic travel, has resulted in a surprisingly stable performance.

Implications/Recommendations: No short-term decline in tourism intensity is a valuable insight for participants in the tourism sector, as it allows them time to adjust. However, sharp increases in energy and fuel costs along with inflation, constitute a threat to domestic demand in the longer term.

Contribution: While the war or postwar issues appear frequently in tourism literature in relation to countries directly involved, the research on neighbouring countries is rare. In contrast to previous research, this paper focused on a neighbouring country with tourism claiming a relatively low share of GDP and included direct and indirect war impacts.

1. Introduction

On 24th February 2022, the army of the Russian Federation crossed the Ukrainian border and started the biggest military conflict in Europe since World War II, creating an unprecedented military and economic threat to neighbouring countries in Central and Eastern Europe. This shocking and inhuman step brought tragedy and death to Ukraine, as well as further turbulence to the regional and global economy that was already shaken by the COVID-19 pandemic. With Russia, the world's third largest oil producer and the world's largest exporter of oil to global markets, being responsible for 32% of the EU's and UK's total gas demand in 2021 (IEA, 2022), and being the world's largest wheat exporter in 2020 (FAO, 2022), serious economic turbulence was inevitable.

Likewise, the tourism industry that had just started recovering from the pandemic faced yet another threat. The US and Asian source markets could be particularly discouraged from travelling to Europe by this development, as these markets have been historically more risk averse. As source markets, Russia and Ukraine represented a combined 3% of global spending on international tourism as of 2020. UNWTO (2022) predicted that a prolonged conflict could translate into a loss of US $14 billion in tourism receipts globally in 2022.

The available literature on warfare in relation to tourism mainly concerns countries directly involved in hostilities. Regarding the main actors of conflicts, scholars have investigated impacts of war or terrorism on the tourism sector, as well as post-war tourism rebuilding strategies. A separate stream of research addresses tourism to former war / terror / death sites (e.g., thanatourism, memory tourism). However, what remains relatively under researched is the impact of war or terrorism on tourism in neighbouring countries, defined as countries with geographical or / and cultural proximity to the country of interest (Perles-Ribes *et al.*, 2018; Buigut, Kapar & Braendle, 2022). These countries, although not directly involved in the conflict, are often greatly impacted by it.

The present research represents a step toward addressing this gap. Poland, as a neighbouring country to the recent armed aggression of the Russian Federation

against Ukraine, serves as a unique context to study the effects of the upheaval of war on a neighbouring country's tourism industry. Based on the tourism crisis management framework (Faulkner, 2001), fundamental motives framework (Griskevicius & Kenrick, 2013), consumer choice theory (Greenlaw & Shapiro, 2017) and tourism and war framework (Teye, 1988, as cited in Mihalić, 1996), this paper attempts to shed light on the effects of war on tourism with regard to macroeconomic turbulence caused by the war in a neighbouring country. It thus extends the warfare and tourism research on the initial phase of the conflict, focusing on short--term effects.

The rest of the article is structured as follows. The next section presents the literature review. Subsequently, the methodology of the research is explained, followed by the results, discussion, and conclusions.

2. Literature Review

Negative events affecting businesses and societies can originate from different sources. Those originating from internal inefficiencies of an organisation are defined as crises, while those of external origin (regardless of whether they are caused by natural or human forces) are defined as disasters (Faulkner, 2001; Berbekova, Uysal & Assaf, 2021). Both crises and disasters have been the subject of much research, and respective frameworks with respect to tourism are available (Faulkner, 2001; Ritchie, 2004, 2008; Ritchie & Jiang, 2019; Wut, Xu & Wong, 2021).

The available literature on war and warfare in relation to tourism mainly concerns countries directly involved in the events. Specifically, the research covers the negative effects of war on tourism sectors or recovery strategies applied after the conflict. A separate stream of research is devoted to warfare tourism, which includes visiting war memorials and museums, "war experiences," battle re-enactments, and battlefield tours.

The research on former war arenas has covered many geographical areas. For example, scholars have analysed the impact of the Sri Lankan Civil War on international tourist arrivals to Sri Lanka (Selvanathan, 2007); presented the post-war state of tourism and opportunities for development strategies (Fernando, Bandara & Smith, 2013; Fernando & Jayawardena, 2013; Dissanayake & Samarathunga, 2021); evaluated the impact of the Balkan war on Slovenian inbound tourism in former Yugoslavia (Mihalić, 1996); and addressed the development of warfare tourism sites, such as memorial sites and war museums, in Croatia and Bosnia (Naef, 2016; Šuligoj, 2017). Research has covered African destinations including Botswana (Gumbo, 2014) and Kenya (Buigut & Amendah, 2016), and Senbeto (2022) provided a comprehensive review of crisis management literature in Africa. Other research has covered the Kurdistan region of Iraq (Omer & Yeşiltaş, 2020); assessed the negative effects of events of violence on tourism development in the mountain area

of Chitral, Pakistan (Rahman *et al*., 2011); investigated tourism-oriented approaches in the reconstruction of buildings and landmarks on the Iran / Iraq border (Mirisaee & Ahmad, 2018); critically assessed tourism industry development after the civil war in Guatemala (Devine, 2016); and considered the role of battlefield memorials and war museums in shaping perceptions of Vietnam War (Gillen, 2014; Madigan & West, 2023).

For countries directly involved in military conflicts or terrorism, the reported effects on tourism sectors are always negative. However, in the scarce literature on neighbouring countries, the conclusions are less unequivocal. Perles-Ribes *et al*. (2018) studied the recent Arab uprisings and their impact on tourism locations in the Mediterranean area, identifying negative effects on international tourist arrivals in Egypt and Tunisia (directly involved countries), positive results in Morocco and Turkey, and unclear impacts on Spain and Greece. Buigut, Kapar and Braendle (2022) found that increasing terrorism in Malaysia had a negative impact on foreign tourists' arrivals to the country. Further, mixed spillover effects of acts of terrorism were found in neighbouring countries; for example, the growth of terrorism in Thailand boosted, while that in Indonesia and the Philippines decreased, international arrivals to Malaysia (Buigut, Kapar & Braendle, 2022).

While the existing research on neighbouring countries has employed international tourist arrivals as the dependent variable, the present study delves deeper. First, rather than just arrivals, it considers tourism intensity, defined as the number of tourists accommodated and number of overnight stays. Second, it divides the international tourism intensity by country type: aggressor (Russia), ally (Belarus), under attack (Ukraine), other neighbouring countries (Central Eastern Europe), and more distant locations (other European and non-European countries). Third, it includes the previously omitted domestic tourism intensity. Fourth, the tourism intensity in Poland is analysed in five regions to identify the impacts on the areas located closest to the war arena (i.e., Eastern border). Moreover, this study includes additional variables that may impact tourism intensity, including the influx of war refugees, the duration and intensity of the war, and macroeconomic indicators (energy/fuel costs and inflation). While Perles-Ribes *et al*. (2018) compare real to predicted international arrivals (using ARIMA and CausalImpact), and Buigut, Kapar and Braendle (2022) build a fully modified OLS model (using terrorism events and fatalities, both regional and by country), this study covers a broader array of direct and indirect war impacts and employs correlation analysis to verify the hypotheses. Table 1 presents a comparison of the existing research and this study.

As stated above, the impact of military conflicts on the tourism of neighbouring countries is not unidirectional and requires further research. Moreover, the neighbouring countries studied so far were clearly sun-and-sea destinations, while

Poland is not a major tourism destination: in 2020, the share of (direct) tourism GDP in total GDP was only 1.2% compared to the OECD average of 4.4% (OECD, 2020).

Table 1. Research on the Impact of War or Terrorism on Neighbouring Countries

Specification	Event	Neighbouring Countries	Variables	Method
Perles-Ribes *et al.* (2018)	Arab uprisings in Egypt and Tunisia	Morocco, Turkey, Spain, Greece	– international tourist arrivals, real vs. predicted – 1980–2014 yearly data	ARIMA and CausalImpact
Buigut, Kapar & Braendle (2022)	Terrorism in the Philippines, Thailand, and Indonesia	Malaysia	– international tourist arrivals overall and by four source continents – terrorism events and fatalities, regional and by country, exchange rates – 2000–2017 quarterly data	Fully modified OLS model
This study	War in Ukraine – aggressor: Russian Federation, aggressor's ally: Belarus	Poland	– tourism intensity (tourists accommodated and overnight stays): foreign (overall and by source country/region); domestic (overall); regional (distribution within Poland) – influx of war refugees – war duration and intensity – energy costs, fuel costs, and inflation – 2018–2022 monthly data	Correlation

Source: the author.

3. Methodology

3.1. Theoretical Framework

War can impact tourism in a neighbouring country directly (by preventing foreign tourists from arriving in areas near the warzone) (Perles-Ribes *et al.*, 2018; Buigut, Kapar & Braendle, 2022), but it can also do so indirectly by causing turbulence in macroeconomic indicators, which in turn influence consumer decisions regarding domestic tourism.

Regarding indirect impacts, the EU responded to the Russian attack on Ukraine with a series of sanction packages (Consilium, 2023). With Russia being an important supplier of energy sources to Europe, this resulted in energy price increases (e.g., Poland switched its source of coal from Russia to more expensive sources;

Sawicki, 2022). Therefore, if the country involved in the warfare played a significant role in the regional or global energy market, the effects would be as follows:

H1: The longer the war duration, the higher the (H1a) energy costs, (H1b) fuel costs, and (H1c) inflation in neighbouring countries.

The consumer choice theory suggests that, assuming the budget remains unchanged, a price increase in essential products / services leads to a reduction in consumption of non-essential goods (e.g., dining out, travel) or postponement of investment (e.g., new car, new refrigerator) (Greenlaw & Shapiro, 2017). Thus:

H2: The higher the energy, fuel costs, and inflation, the lower the domestic tourism intensity in neighbouring countries.

Turning to the direct impact of war on tourism in neighbouring countries, Campbell *et al.* (2020) describe external threats as both actual and potential dangers to human wellbeing. According to the fundamental motives framework, one of the most deep-seated evolutionary motives is the drive to avoid physical harm, which continues to impact much modern consumer behaviour (Griskevicius & Kenrick, 2013). In the tourism context, this motive would translate into avoiding travel into areas close to military conflicts. Such avoidance would impact tourism intensity, especially foreign tourist flows, in neighbouring countries. Additionally, Teye (1988, as cited in Mihalić, 1996) described impacts on tourism of the directly involved country, of which adverse publicity in international media and "blacklisting" by travel agencies and foreign authorities could be extended to neighbouring countries. Thus:

H3: The stronger the war intensity, the lower the foreign tourism intensity in neighbouring countries.

3.2. Variables

Variables proposed for the framework, including their operationalisation and data sources, are reported in Table 2. The analysis period was January 2018–December 2022. This time horizon made it possible to capture pre-COVID-19 trends; however, due to the pandemic's substantial impact on tourism, it was not possible to entirely separate the two disasters' effects. The frequency for all data was monthly.

The variables describing the *war* were *duration* and *intensity*. The duration was operationalised by assigning 0 for the months before the war breakout, while February 2022 (the first month of the war) was assigned 1, March 2022 – 2, April 2022 – 3, and so on. War intensity was operationalised by the intensity of the media coverage that shaped tourists' perceptions of the conflict. The vital role of international media in shaping tourists' destination decisions has been confirmed by prior research (Avraham, 2013; Gumbo, 2014; Tarlow, 2015). Therefore, the study used the Global Online News Coverage (volume intensity: % monitored articles) by

GDELT Project, which monitors the world's broadcast, print, and web news from nearly every corner of every country in more than 100 languages (GDELT, 2023). The search details were as follows: Data Source: Global Online News Coverage; Human Summary: (Ukraine OR Ukrainian OR Kiev OR Kyiv) AND Publication-Date ≥ 1/1/2018.

The *refugee influx* was measured by the *number of people evacuated to Poland* (*the area bordering Ukraine*) from the Polish Border Guards, who provide statistical information based on their databases (Border Guards, 2023).

The macroeconomic indicators affected by the war and impacting domestic tourism intensity were *energy costs*, *fuel costs*, and *inflation*. The energy costs variable was operationalised by the *price index of sold production in electricity, gas, steam and hot water generation and supply* as reported by Statistics Poland. For the fuel costs variable, the study used the average *retail price of Euro 95 gasoline in gas stations in Poland* as reported by Bankier.pl website (leading banking and business website offering content and tools facilitating decision making in money management; Bankier.pl, 2023). For inflation, Statistics Poland data were used, applying the *index of increase in prices of consumer goods and services* indicator (Statistics Poland, 2022a).

The *demand* side was described by *foreign tourism intensity* and *domestic tourism intensity*. Two indicators reported monthly by Statistics Poland (2022b) were analysed: *number of tourists accommodated* (NoTA) and *number of overnight stays* (NoOS).

Table 2. Sources and Operationalisation of Variables

Group	Number	Variable	Source	Operationalisation of the Variable
Time	1	Time	–	Calendar months
War	2	War duration	–	0 for non-war months, 1 = February, 2 = March, 3 = April, etc.
	3	War intensity	GDELT (2023)	Global Online News Coverage: volume intensity (% monitored articles)
Refugees	4	Refugee influx	Border Guards (2023)	People evacuated to Poland (area bordering Ukraine)
Macroeconomic indicators	5	Energy costs	Statistics Poland (2022a)	Price index of sold production in electricity, gas, steam and hot water generation and supply
	6	Fuel costs	Bankier.pl (2023)	Average retail price of Euro 95 gasoline in gas stations in Poland
	7	Inflation	Statistics Poland (2022a)	Index of increase in prices of consumer goods and services

Table 2 cnt'd

Group	Number	Variable	Source	Operationalisation of the Variable
Demand	8	Tourism intensity	Statistics Poland (2022b)	Number of tourists accommodated (NoTA) in tourist accommodation establishments
	9			Number of overnight stays (NoOS) in tourist accommodation establishments
	10	Foreign tourism intensity	Statistics Poland (2022b)	Number of foreign tourists accommodated (FNoTA) in tourist accommodation establishments
	11			Number of overnight stays of foreign tourists (FNoOS) in tourist accommodation establishments
	12			FNoTA: Russia
	13			FNoTA: Belarus
	14			FNoTA: Ukraine
	15			FNoTA: CEE
	16			FNoTA: other Europe
	17			FNoTA: non-Europe
	18			FNoOS: Russia
	19			FNoOS: Belarus
	20			FNoOS: Ukraine
	21			FNoOS: CEE
	22			FNoOS: other Europe
	23			FNoOS: non-Europe
	24	Domestic tourism intensity	Statistics Poland (2022b)	Domestic NoTA
	25			Domestic NoOS
	26	Regional tourism distribution within Poland	Statistics Poland (2022b)	NoTA by region
	27			NoOS by region
	28			Eastern border: NoTA by foreign/domestic
	29			Eastern border: NoOS by foreign/domestic

Notes: The frequency for all data was monthly.
Source: the author.

Foreign tourism intensity was additionally analysed across countries to spot the potential discrepancies in behaviours: Ukraine, Russia, Belarus, Central Eastern Europe (CEE: Bulgaria, Czech Republic, Estonia, Lithuania, Latvia, Romania, Slovakia, Hungary), Europe Other, and non-Europe. Belarus has not been openly involved in the conflict but has been subject to EU and USA sanctions due to

providing logistic and operational support to the Russian army. CEE countries have been grouped for their similar proximity to the warzone and historically close economic ties to Russia.

Further, the regional distribution of tourism intensity within Poland was analysed to spot any signs of tourists avoiding Eastern border locations in close proximity to Ukraine, Belarus, and the Russian Federation. For the purpose of the analysis, the administrative districts were grouped into: seaside (North), mountains (South), Eastern border (districts along the eastern border of Ukraine, Belarus and Kaliningrad Oblast of Russian Federation), Central/West (no particular tourist attractions), and Mazovian (capital city, Warsaw district).

3.3. Data Analysis

The data were analysed in two steps. First, descriptive analysis of the data was performed, comparing data and revealing trends. Second, correlation analysis was performed using SPSS to verify the hypotheses. To estimate the correlations of the war to the analysed indicators, it was necessary to choose the appropriate (non-war) baseline. In analysing the data, it was difficult to separate the effects of the outbreak of the war in Ukraine and the COVID-19 pandemic preceding it. In view of this, the author decided to take the years of 2018–2019 as the best possible (and simplest) benchmark. Therefore, the data for 2022 were directly compared to those from 2018–2019, excluding the pandemic years of 2020–2021. The analyses were thus conducted on 34 months' data: 24 from 2018–2019 and 10 from 2022.

4. Results

4.1. Macroeconomic Indicators

The world economy has faced many challenges in recent years, including the COVID-19 pandemic, climate change, energy supply issues, and migration crises. Following the Russian armed aggression against Ukraine and the subsequent sanction packages imposed on Russia by the EU (Consilium, 2023), additional problems appeared: millions of refugees from Ukraine, food supply issues, energy crises, and high inflation (Osiecki, 2022). In Poland, fuel costs started growing in 2021, but the war accelerated the increases in fuel costs and energy costs (Fig. 1a). Also, inflation reached its highest level since 1997 (Fig. 1a).

The immediate result of the war was the influx of refugees into Poland. The refugees were hosted by private citizens, temporary reception halls, or accommodation establishments, with special government support programmes employed to recover the costs of hosting them. As reported by Statistics Poland (2022c), out of 6.8 billion overnight stays provided in March 2022 by accommodation establishments offering ten or more beds, 1.1 billion were given to refugees from Ukraine.

1a. Fuel and energy costs, inflation

— (6) Fuel costs (PLN)   — (5) Energy costs (Index)   — (7) Inflation (Index)

1b. People evacuated and news coverage

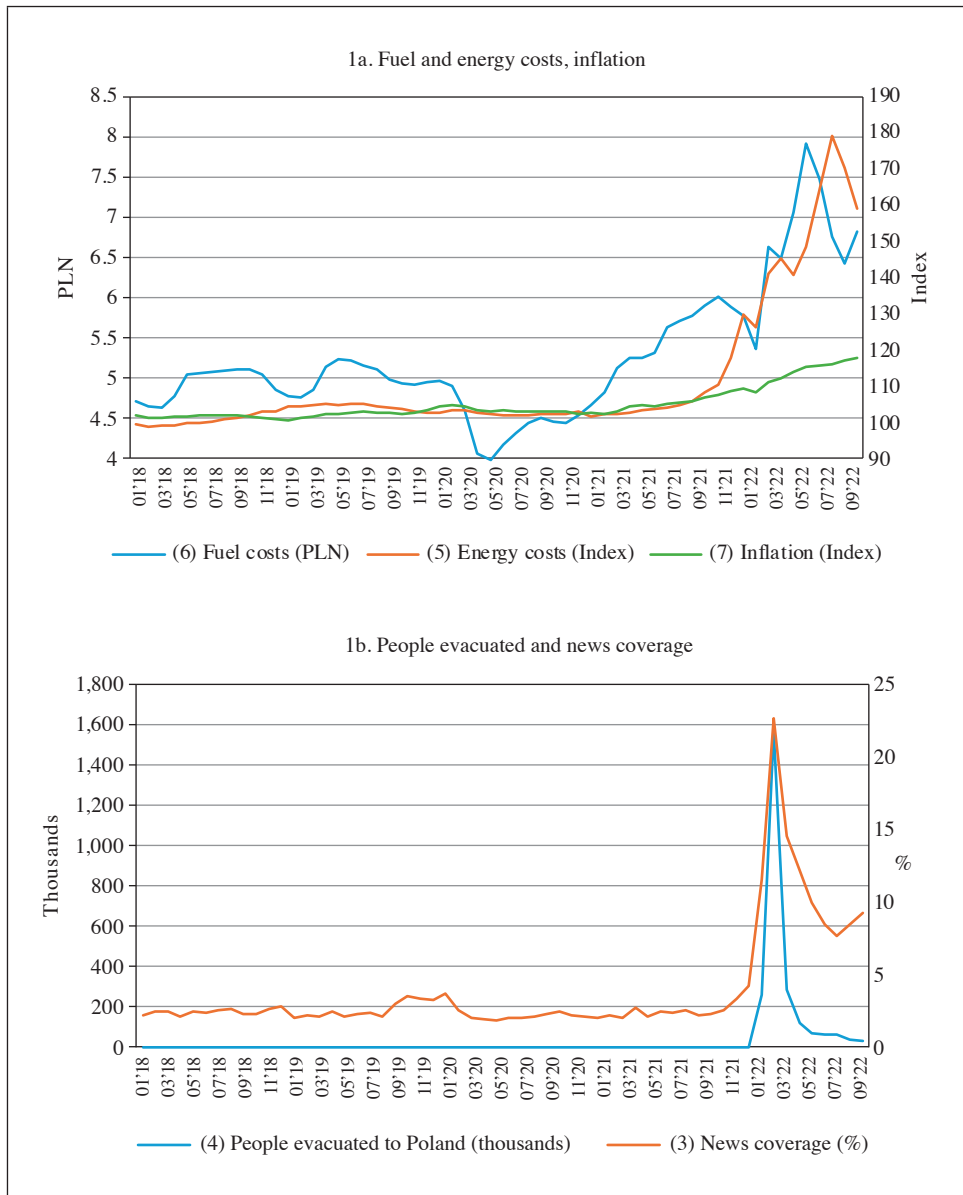— (4) People evacuated to Poland (thousands)   — (3) News coverage (%)

Fig. 1. Fuel and Energy Costs, Inflation, People Evacuated to Poland, News Coverage

Source: the author, based on Statistics Poland (2022a), Bankier.pl (2023), Border Guards (2023), GDELT (2023).

The largest number of refugees from Ukraine (number of people evacuated to Poland – area bordering Ukraine) crossed the border in March 2022 (Fig. 1b). This was also the period of the highest intensity of news coverage, as reported by the GDELT Project. At the peak moment, 23% of all media coverage monitored globally concerned the war in Ukraine (Fig. 1b).

4.2. Demand

When analysing the demand side of the framework, the NoTA and NoOS indicators were analysed in four ways. First, total numbers were analysed, and the data were compared for the first ten months of five consecutive years (from 2018 to 2022) (Fig. 2). Second, trends in domestic vs. foreign tourist data were analysed (Fig. 3). Third, the foreign tourist data were split to identify any trends in their behaviour related to the country of citizenship (Fig. 4, Table 3). Fourth, the regional distribution of tourism intensity within Poland was analysed to identify any signs of tourists avoiding Eastern border locations in close proximity to Ukraine, Belarus, and the Russian Federation (Fig. 5–6).

As indicated earlier, the years 2020–2021 were impacted by the COVID-19 pandemic, so the study focused on comparing 2022 with 2018–2019. The year 2022 displayed similar patterns to 2018–2019 in terms of both NoTA (Fig. 2a) and NoOS (Fig. 2b). In fact, averages and peak summer months fell between 2018 and 2019 values, with only the minimum value (January) being lower. Thus, it might seem that business had returned to pre-pandemic patterns. However, this was not exactly the case.

Looking at the split of NoTA (Fig. 3a) and NoOS (Fig. 3b) into domestic and foreign tourists, the change in their proportions is visible. While for 2018–2019 the proportions of domestic vs. foreign tourists were stable at 79.1% for NoTA and 80.4–80.3% for NoOS, the proportions for 2022 were more in favour of domestic tourists (83.5% for NoTA and 84.2% for NoOS). This can be attributed to the fact that the number of foreign tourists arriving in Poland decreased in 2022, unlike domestic tourists (5.8% increase vs. 2018 and 0.6% vs. 2019, for NoTA indicator).

Regarding foreign tourists, the indicators were analysed through the lens of citizenship, considering Russia, Belarus, Ukraine, CEE, Other Europe, and non--Europe (Fig. 4). Although the total NoTA (Fig. 4a) and NoOS (Fig. 4b) for foreign tourists decreased compared to 2019, the trend was not equal for all the source directions (Table 3). In the case of Russia and Belarus, the decrease in both indicators was mostly the result of travel limitations imposed by the EU (Consilium, 2023). Ukraine's increase was the result of the influx of refugees, who were partly accommodated at tourist accommodation establishments.

2a. Tourists accomodated
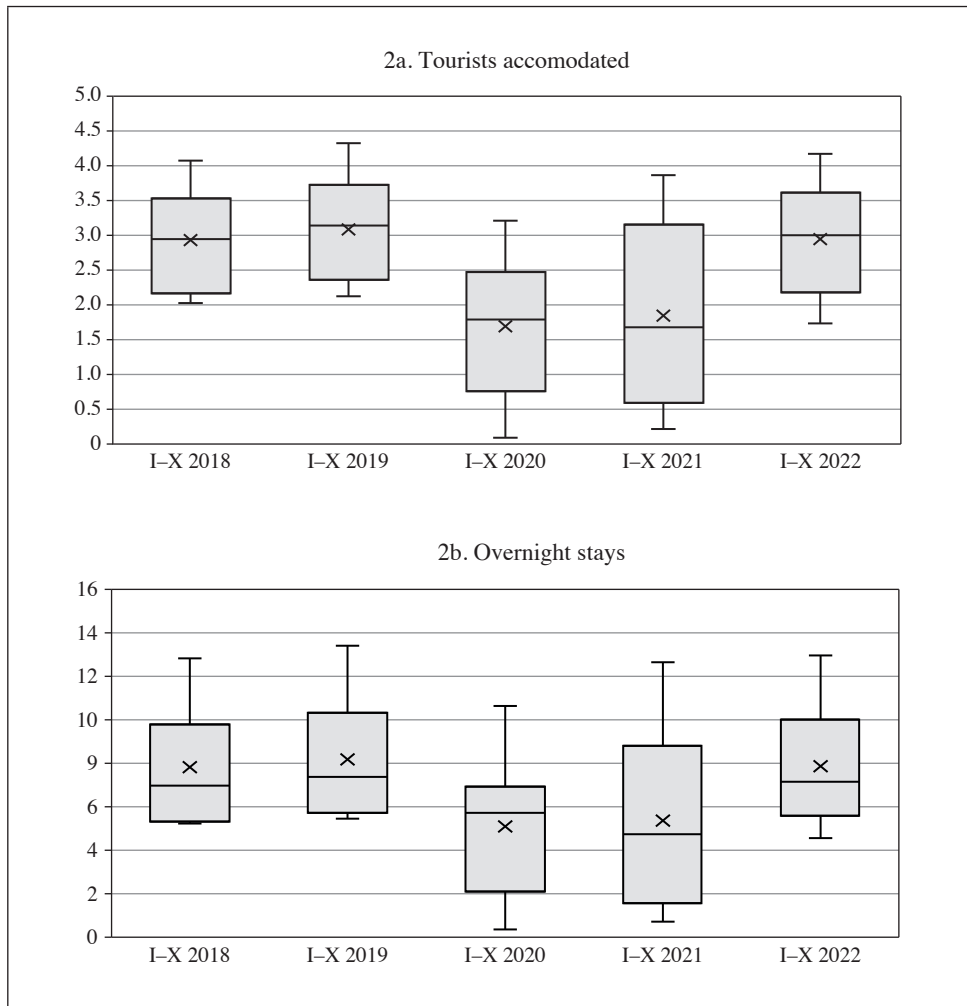
2b. Overnight stays

Fig. 2. Number of Tourists Accommodated and Overnight Stays (10 Months of 2018–2022) (in Millions)

Source: the author, based on Statistics Poland (2022b).

3a. Tourists accommodated

3b. Overnight stays
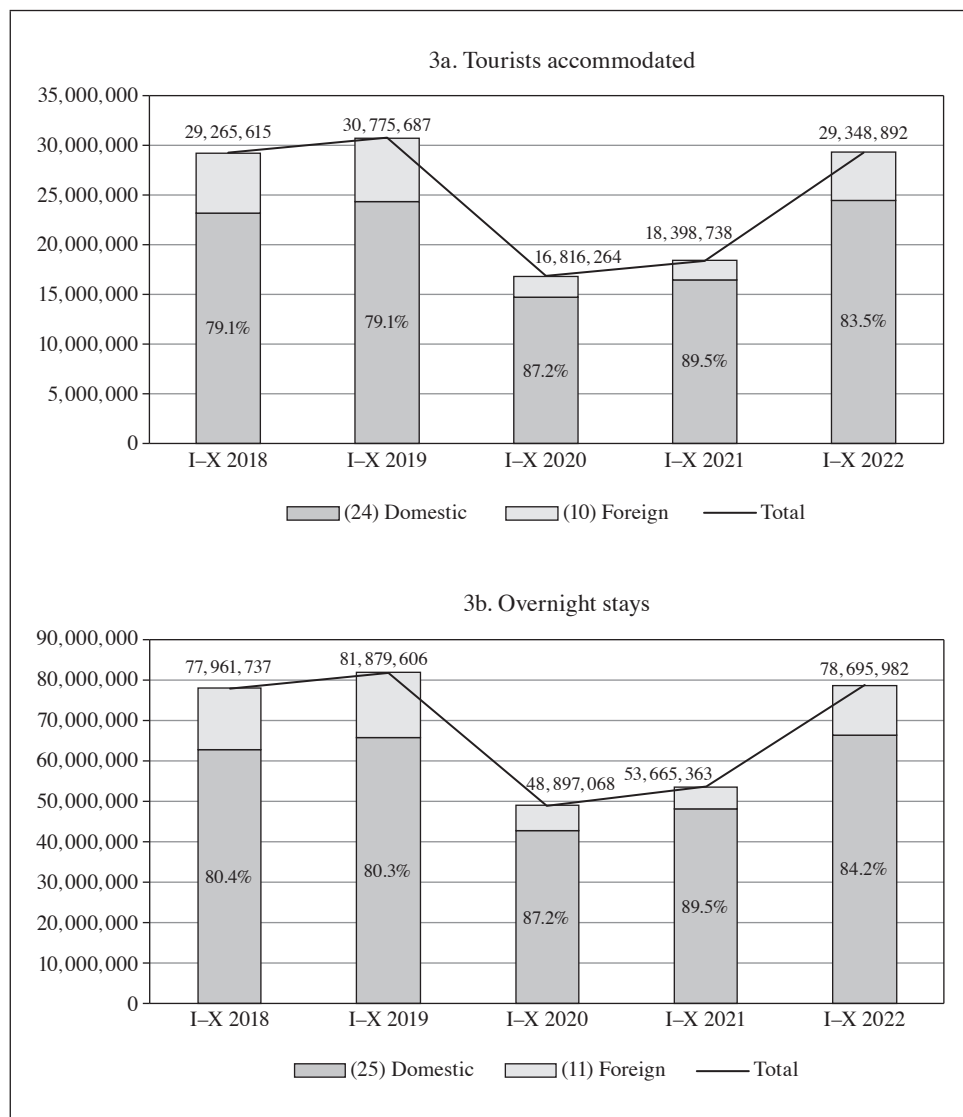

Fig. 3. Domestic vs. Foreign Split of Tourists Accommodated and Overnight Stays
Source: the author, based on Statistics Poland (2022b).

4a. Tourists accommodated: foreign tourists
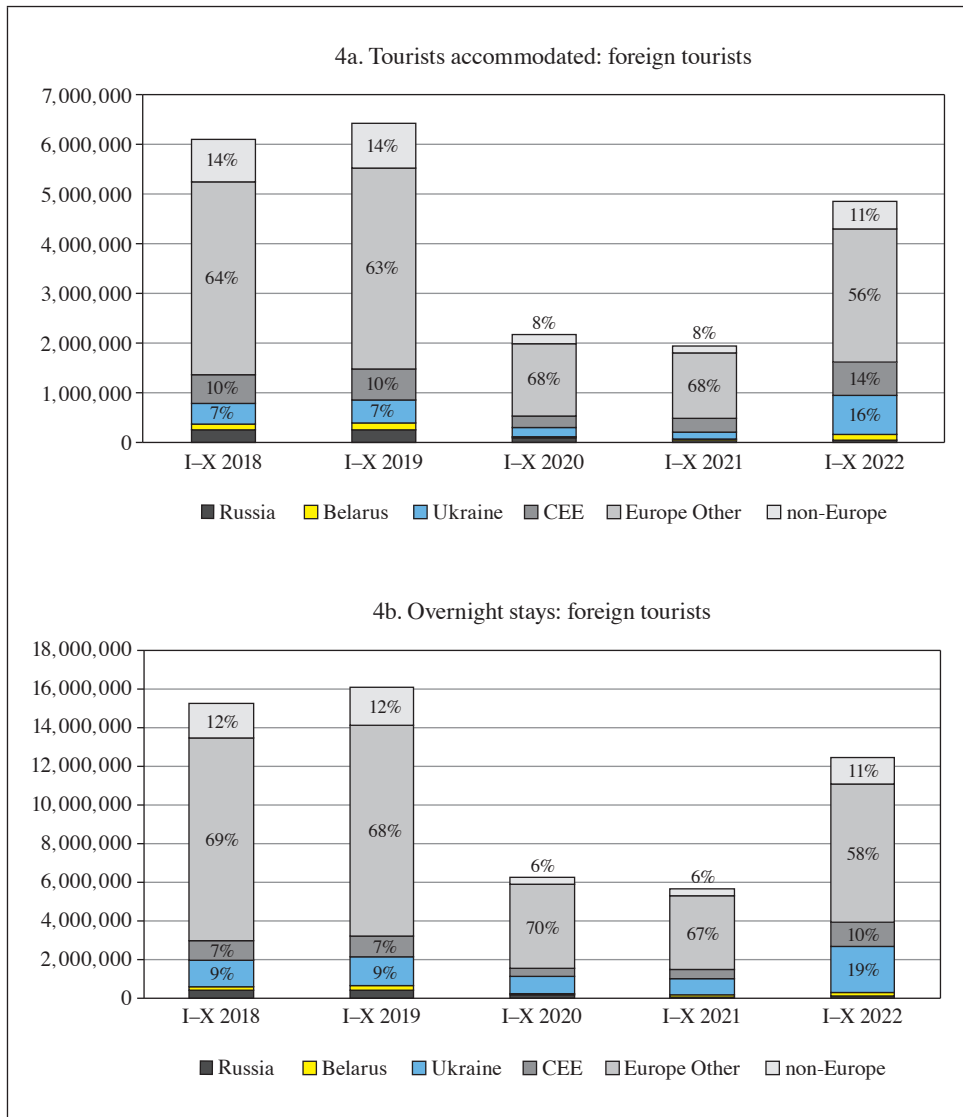

4b. Overnight stays: foreign tourists

Fig. 4. Foreign Tourists by Citizenship (Tourists Accommodated and Overnight Stays)
Source: the author, based on Statistics Poland (2022b).

The remaining countries were grouped into CEE, Other Europe, and non--Europe. Tourists from European countries other than CEE constituted the biggest group of foreign tourists accommodated in Poland in 2018–2019 and 2022. In 2022, compared to 2019, their 33.3% decrease in NoTA and 34.3% decrease in NoOS (Table 3) resulted in the decrease of their share in NoTA from 63% to 56% (Fig. 4a) and in NoOS from 68% to 58% (Fig. 4b).

Table 3. Foreign Tourists Split by Citizenship Dynamics

Specification	Russia	Belarus	Ukraine	CEE	Other Europe	Non-Europe
Tourists accommodated (NoTA)						
I–X 2019	244,139	140,791	463,742	629,264	4,040,515	901,586
I–X 2022	43,947	107,089	791,957	658,592	2,696,611	553,953
Dynamics	−82.0%	−23.9%	70.8%	4.7%	−33.3%	−38.6%
Overnight stays (NoOS)						
I–X 2019	393,530	222,471	1,493,432	1,108,927	10,939,772	1,932,372
I–X 2022	86,957	201,352	2,389,115	1,245,078	7,188,630	1,344,960
Dynamics	−77.9%	−9.5%	60.0%	12.3%	−34.3%	−30.4%

Source: the author, based on Statistics Poland (2022b).

A similar pattern of 30–40% decrease in both indicators could be observed for non-European countries (Table 3). For Other Europe and non-Europe regions, this could be a response to the war proximity in line with the fundamental motives framework, which indicates that consumers will avoid situations constituting a risk to their health or wellbeing.

In contrast, the NoTA and NoOS from CEE increased in 2022 vs. 2019 by 4.7% and 12.3% respectively (Table 3). The CEE countries are situated similarly to Poland in their proximity to the war in Ukraine. Thus, their citizens' travel to Poland would not increase the risk to their health or wellbeing compared to their home country. Therefore, the fundamental motives framework would not apply here, and tourists would return to their pre-COVID-19 travel habits.

Another analysis focused on regional distribution of tourism intensity within Poland to identify any signs of tourists avoiding Eastern border locations (Fig. 5–6)

The 2022 vs. 2019 comparisons of the regional distribution of tourism intensity within Poland (Fig. 5) show a slight decrease in Eastern border region shares in NoTA (from 17.6% to 16.7%; Fig. 5a) but no change in NoOS (11.5% vs. 11.6%; Fig. 5b). This could potentially indicate tourists avoiding the region; however, as a similar trend is visible for the Central/West region, this conclusion seems unsupported.
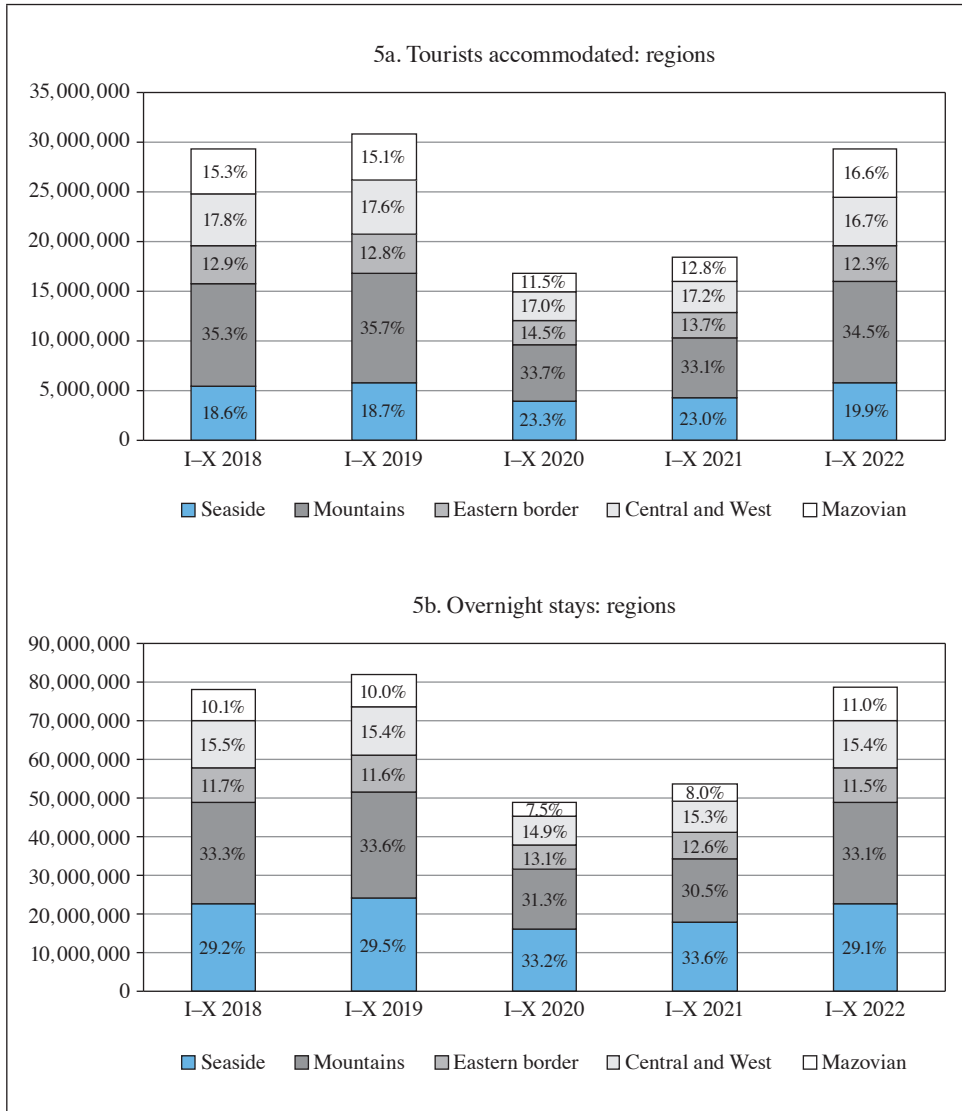
5a. Tourists accommodated: regions

Legend: Seaside, Mountains, Eastern border, Central and West, Mazovian

Year	Seaside	Mountains	Eastern border	Central and West	Mazovian
I–X 2018	18.6%	35.3%	12.9%	17.8%	15.3%
I–X 2019	18.7%	35.7%	12.8%	17.6%	15.1%
I–X 2020	23.3%	33.7%	14.5%	17.0%	11.5%
I–X 2021	23.0%	33.1%	13.7%	17.2%	12.8%
I–X 2022	19.9%	34.5%	12.3%	16.7%	16.6%

5b. Overnight stays: regions

Legend: Seaside, Mountains, Eastern border, Central and West, Mazovian

Year	Seaside	Mountains	Eastern border	Central and West	Mazovian
I–X 2018	29.2%	33.3%	11.7%	15.5%	10.1%
I–X 2019	29.5%	33.6%	11.6%	15.4%	10.0%
I–X 2020	33.2%	31.3%	13.1%	14.9%	7.5%
I–X 2021	33.6%	30.5%	12.6%	15.3%	8.0%
I–X 2022	29.1%	33.1%	11.5%	15.4%	11.0%

Fig. 5. Regional Distribution of Tourism Intensity within Poland

Source: the author, based on Statistics Poland (2022b).

6a. Tourists accommodated: Eastern border

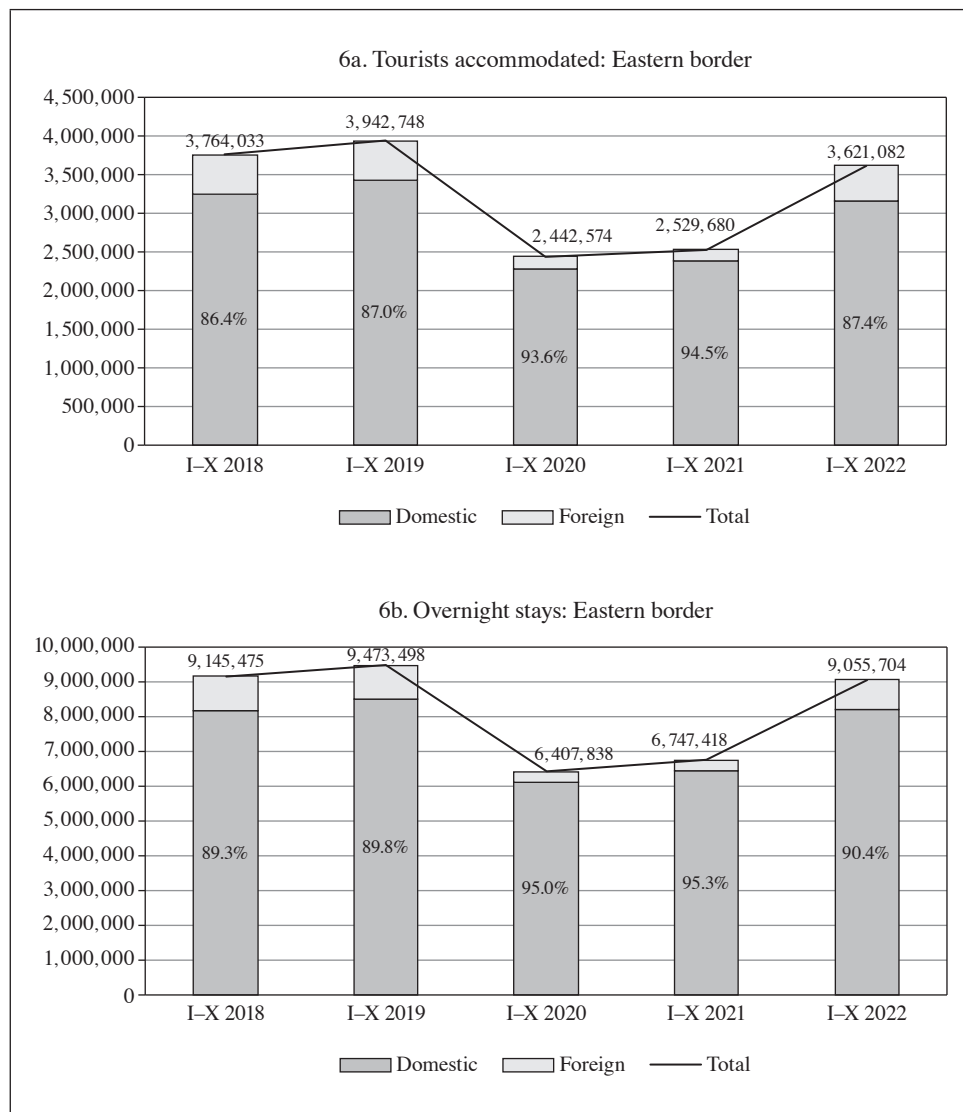## 6b. Overnight stays: Eastern border

Fig. 6. Eastern Border Region by Domestic and Foreign Tourism Intensity
Source: the author, based on Statistics Poland (2022b).

When comparing the split of domestic vs. foreign tourists' behaviour within the Eastern border region (Fig. 6), a minor increase in domestic indicators can be seen (from 87% to 87.4% for NoTA, Fig. 6a; from 89.8% to 90.4% for NoOS, Fig. 6b); however the changes seem too small to justify any firm conclusions.

4.3. Hypotheses Testing

Regarding indirect war impacts, as shown in Table 4, the war duration was significantly positively correlated with energy costs (0.934; $p < 0.01$), fuel costs (0.843; $p < 0.01$), and inflation (0.932; $p < 0.01$). These findings confirm H1a, H1b, and H1c, which stated that longer war duration would be associated with increased energy costs, fuel costs, and inflation, at least in the initial phase.

Table 4. Pearson's Correlations: War Duration, Domestic Tourists, and Macroeconomic Indicators, $N = 34$

Specification	(2) War Duration		H1	(24) Domestic Tourists Accommodated (NoTA)		H2
(5) Energy costs	0.934**	$p < 0.01$	confirmed	0.319	$p = 0.066$	rejected
(6) Fuel costs	0.843**	$p < 0.01$	confirmed	0.390*	$p = 0.023$	confirmed
(7) Inflation	0.932**	$p < 0.01$	confirmed	0.303	$p = 0.082$	rejected

** $p < 0.01$; * $p < 0.05$.

Source: the author, based on Statistics Poland (2022a, 2022b).

Regarding indirect war impacts, relations were hypothesised between macroeconomic indicators and domestic tourist intensity (H2). As shown in Table 4, domestic NoTA had no significant relation to energy costs (0.319; $p = 0.066$) or to inflation (0.303; $p = 0.082$), while its relation to fuel costs was estimated as positive and moderately significant (0.390; $p = 0.023$), suggesting that domestic tourists were not discouraged in the short term by the adverse macroeconomic forces effects of the war, seemingly refuting the consumer choice theory. However, these relations need to be assessed in the longer term, as growing household costs and inflation should finally translate into a decline in domestic tourists' activities.

Regarding the direct war impacts (H3, Table 5), the fundamental motives framework would apply only to the behaviours of tourists from more distant locations (Other Europe and non-Europe). For these groups, NoTA showed a significant negative correlation to war intensity (respectively: –0.421; $p = 0.013$, and –0.376; $p = 0.028$), supporting H3. The behaviours of the remaining groups were either driven by sanctions or resulted from the presence of war refugees. Due to the travel ban imposed by the EU on Russia and Belarus, their NoTA showed a significant

negative correlation to war intensity (Russia: −0.754; $p < 0.01$, Belarus: −0.407; $p = 0.017$) (Table 5). In contrast, due to the high number of refugees from Ukraine being hosted in accommodation establishments, the correlation of NoTA from Ukraine to war intensity was estimated as significant and positive (0.813; $p < 0.01$). The NoTA from CEE (−0.003; $p = 0.988$) and domestic tourists (−0.024; $p = 0.893$) showed no significant relation to war intensity, as their travel to Poland did not increase their risk of personal physical harm due to the war; therefore, the fundamental motives framework would not apply here.

Table 5. Pearson's Correlations: War Intensity, Foreign Tourists by Citizenship, $N = 34$

Specification	(3) War Intensity		H3
(10) Foreign tourists	−0.297	$p = 0.088$	rejected
(12) Russia	−0.754**	$p < 0.01$	not applicable
(13) Belarus	−0.407*	$p = 0.017$	not applicable
(14) Ukraine	0.813**	$p < 0.01$	not applicable
(15) CEE	−0.003	$p = 0.988$	rejected
(16) Europe Other	−0.421*	$p = 0.013$	confirmed
(17) Non-Europe	−0.376*	$p = 0.028$	confirmed
(24) Domestic tourists	−0.024	$p = 0.893$	not applicable

$** p < 0.01$; $* p < 0.05$.
Source: the author, based on Statistics Poland (2022b), GDELT (2023).

It is worth mentioning that the statistical significance of aforementioned correlations does not necessarily assume the causality between them. The causality between the war and the macroeconomic indicators was confirmed by economists prior to this research (Osiecki, 2022; Sawicki, 2022). In the case of tourist flows from Russia, Belarus, and Ukraine, the causality attributed to the war is not disputable. As for the remaining relations, the confounding factor of COVID-19 is discussed at length in the next section.

5. Discussion and Conclusions

Although much literature has addressed the impact of wars and terrorism on the tourism industry of directly involved countries, the impact on neighbouring countries has been little researched. Additionally, the available research concerned mainly sun-and-sea destinations, while this paper focused on a neighbouring country with a relatively low GDP share of tourism. Moreover, the existing research investigated the direct impacts of war or terrorism events (e.g., number of casualties or fatalities) on international tourist arrivals, while this paper also included indirect

impacts of energy costs, fuel costs, and inflation and delved much deeper into the demand side (domestic, regional, refugee influx), covering a broad number of indicators (29 variables), thereby making a valuable contribution to the literature on tourism disaster management in its emergency phase.

The direct impacts of war intensity on the flows of foreign tourists varied according to the tourists' country of origin. There was a decline in visits from the aggressor country (Russia) and its ally (Belarus), largely due to travel sanctions. Conversely, there was an increase in stays by citizens from the country under attack (Ukraine), as refugees were partly accommodated in tourist establishments. Tourists from other neighbouring Central and Eastern European countries showed no significant change in numbers. However, there was a decline in tourist visits from more distant regions (other parts of Europe and non-European countries), which aligns with the fundamental motives framework. Although the decline in number of tourists from more distant regions aligns with the results from the previous research (Buigut, Kapar & Braendle, 2022), no prior research has delved into the issue of countries' roles in the conflict (aggressor, ally, under attack), which can considerably alter the trends (sanctions, refugee influx). Also, the existing research covered solely sun-and-sea destinations, where both directly involved and neighbouring countries were major recipients of foreign tourists (Mediterranean and South East Asia). Such countries could benefit from international tourists redirecting their trips from directly involved countries (e.g., Turkey and Morocco as beneficiaries of conflicts in Egypt and Tunisia; Perles-Ribes *et al*., 2018; Malaysia as a beneficiary of terrorism events in Thailand; Buigut, Kapar & Braendle, 2022) or suffer from the geographical/cultural proximity to directly involved countries (e.g., Malaysia suffering from terrorism events in Indonesia and Philippines; Buigut, Kapar & Braendle, 2022). For this study, where neither of the focal countries was a sun-and-sea destination, such spillover effects would not apply; rather, the vital role of shaping tourism in the neighbouring country would be played by domestic tourists. The fundamental motives framework would also not apply here, especially as the Eastern border region of Poland (the closest to the territories of the participants in the war) has never been an attractive domestic tourism destination. Instead, the indirect impacts of the macroeconomic situation in relation to the consumer choice theory should be considered.

These indirect impacts include those of increasing energy costs, fuel costs, and inflation caused by the war or war sanctions on domestic tourism demand. According to the consumer choice theory, increasing energy and fuel costs along with high inflation should lead consumers to limit travel activities and thus to limit domestic tourism activities. Surprisingly, in the first ten months after the outbreak of the war, no significant change in domestic tourism intensity was reported, seemingly refuting the consumer choice theory. However, this requires further investigation, as

the effect could be delayed. The internal economic situation was used as an attempt to explain the uncertain impacts of Arab uprisings on tourism in Greece and Spain (Perles-Ribes *et al*., 2018); however, no subsequent research followed this path.

Overall, the consequences of the war in Ukraine have not translated into a decline in Poland's tourism intensity in the short term. This is a valuable insight for practitioners, as it allows them time to adjust. The mix of foreign tourist flows combined with no significant short-term effects on domestic travel resulted in surprisingly reliable performance, almost reaching pre-pandemic levels. This finding differs from prior research results where the neighbouring country's tourism either suffered from the proximity to warfare or benefited by receiving tourists redirected from the directly involved countries.

In terms of governmental interventions, at least two actions should be mentioned when analysing Polish tourism in 2022. First, impacting the foreign tourist demand, the programme of reimbursing the costs of Ukrainian refugees hosted in accommodation establishments (GOV.PL, 2022) allowed the accommodation providers to recover the costs the refugees could not pay themselves. The local administration cooperated on a large scale with the accommodation providers to successfully manage the massive and unexpected influx of refugees. This flow, although not driven by tourism motives, partially recovered the lost earnings from other European and non-European source countries. Second, impacting the domestic tourist demand, the Kid's Tourist Voucher programme of financing holiday expenses for children (120 euro per child to be redeemed only for domestic tourism; GOV.PL, 2023) encouraged Polish families to spend holidays in Poland. Initially, this programme was introduced on 1st August 2020 and intended to support the Polish tourism industry in the COVID-19 period, but it was later extended until 31st March 2023, thus positively impacting domestic tourism in the analysed period. Both of these governmental programme should be considered when assessing the Polish tourism conditions in 2022.

Based on the results, the following recommendations for tourism strategies in the disaster situation of war in a neighbouring country are relevant to accommodation providers and the government. First, accommodation providers should focus on domestic tourists, who will not be affected by the fundamental motives framework, as their movement within the country will not increase their risk of personal physical harm due to the war. Second, accommodation providers should also seek to attract tourists from other neighbouring countries, for whom the fundamental motives framework will likewise not apply. Due to household budget constraints, these tourists may be willing to switch from distant and expensive locations to regional ones. Third, accommodation providers should cooperate with the authorities in receiving refugees. In addition to the obvious positive impact on society and people's wellbeing, such cooperation could serve as a "survival kit"

for accommodation providers if their expenses are reimbursed by the government, either centrally or locally. Such an opportunistic approach to the search for earnings in a disaster situation can be compared to the efforts to make accommodation available to medical personnel or as quarantine sites during the COVID-19 pandemic (Kiczmachowska, 2022). Fourth, the government should support domestic tourism. In this particular case, the government used leftover COVID-19 pandemic support to boost the tourism industry by encouraging families with children to travel domestically, but any form of domestic tourism co-financing would be a good option to reduce the pressure on household budgets and thus limit the impact of the consumer choice theory. Fifth, the government should promote the country among citizens of other neighbouring countries. Attracting tourists from these countries, where the fundamental motives framework would not apply, may constitute an opportunity to grow the tourism industry. Finally, the government should support accommodation providers in hosting war refugees. As the Polish case shows, in the first days of the war, the willingness to host refugees from Ukraine was extremely high among entrepreneurs and private citizens, long before any support programme was introduced by the government. Supporting those who spontaneously organised and maintained the refugees' reception is in the government's best interest to avoid negative consequences, such as human crises or epidemics.

One limitation of this study is that it covered only the first ten months of the conflict. As the war in Ukraine continues, further research can reveal longer-term effects, especially on the domestic tourism intensity, which in the short term did not follow the negative macroeconomic impacts. Another limitation is that this study focused on inbound and domestic tourist flows. Future research could analyse outbound travel, as tourists may (due to increasing energy costs, fuel costs, and inflation) switch from outbound to domestic travel options, further supporting the domestic tourism industry. Moreover, as this study was limited to Poland only, replicating the analyses in other neighbouring countries would allow for comparison of the results and paint a broader picture of the tourism conditions in the region. Finally, the COVID-19 pandemic preceding the war in Ukraine constitutes another limitation of this study. As it is impossible to fully separate the effects of the two disasters on the Polish tourism industry, at least four factors should be considered when discussing the results. The first is the aforementioned Kid's Tourist Voucher government programme, which positively impacted domestic tourism. The other three effects concern changes in tourists' habits and attitudes caused by the pandemic. One change, with a negative impact, is avoidance of distant travel by remote travellers, which led many other European and non-European tourists to prefer spending holidays in their home countries. The second change, also with a negative impact, is maintaining COVID-19 practices of spending holidays at families' premises, summer houses, or allotment gardens instead of accommodation

establishments. The third change, with a positive impact, is a kind of an abreaction phenomenon leading people to travel more to "make up" for lost travel opportunities during the pandemic. The last phenomenon could partly explain the lack of negative trends in domestic travel, despite budget constraints resulting from increasing costs of living and inflation. As such, the COVID-19 pandemic should be regarded as a confounding factor to the results of this research, which should not be interpreted solely in terms of war-related effects.

Conflict of Interest

The author declares no conflict of interest.

References

Avraham, E. (2013). Crisis Communication, Image Restoration, and Battling Stereotypes of Terror and Wars: Media Strategies for Attracting Tourism to Middle Eastern Countries. *American Behavioral Scientist*, *57*(9), 1350–1367. https://doi.org/10.1177/0002764213487733

Bankier.pl. (2023). *Euro 95 Gasoline Price* (*Poland*). Retrieved from: https://www.bankier.pl/gospodarka/wskazniki-makroekonomiczne/eu-95-pol (accessed: 9.01.2023).

Berbekova, A., Uysal, M., & Assaf, A. G. (2021). A Thematic Analysis of Crisis Management in Tourism: A Theoretical Perspective. *Tourism Management*, *86*, 104342. https://doi.org/10.1016/j.tourman.2021.104342

Border Guards. (2023). *Statistical Information*. Retrieved from: https://www.strazgraniczna.pl/pl/granica/statystyki-sg/2206,Statystyki-SG.html (accessed: 9.01.2023).

Buigut, S., & Amendah, D. D. (2016). Effect of Terrorism on Demand for Tourism in Kenya. *Tourism Economics*, *22*(5), 928–938. https://doi.org/10.5367/te.2015.0467

Buigut, S., Kapar, B., & Braendle, U. (2022). Effect of Regional Terrorism Events on Malaysian Tourism Demand. *Tourism and Hospitality Research*, *22*(3), 271–283. https://doi.org/10.1177/14673584211021895

Campbell, M. C., Inman, J. J., Kirmani, A., & Price, L. L. (2020). In Times of Trouble: A Framework for Understanding Consumers' Responses to Threats. *Journal of Consumer Research*, *47*(3), 311–326. https://doi.org/10.1093/jcr/ucaa036

Consilium. (2023). *EU Response to Russia's War of Aggression against Ukraine*. Retrieved from: https://www.consilium.europa.eu/pl/policies/eu-response-ukraine-invasion/#sanctions (accessed: 24.01.2023).

Devine, J. A. (2016). Politics of Post-war Tourism in Guatemala: Contested Identities, Histories, and Futures. *L'Espace Politique*, *28*. https://doi.org/10.4000/espacepolitique.3723

Dissanayake, D., & Samarathunga, W. (2021). Post-war City to a Tourism City: The Perspectives of Local Stakeholders on Post-war City Tourism Development in Jaffna, Sri Lanka. *International Journal of Tourism Cities*, *7*(3), 602–621. https://doi.org/10.1108/IJTC-05-2020-0111

FAO. (2022). *World Food and Agriculture – Statistical Yearbook 2022*. Retrieved from: https://www.fao.org/publications/card/en/c/CC2211EN (accessed: 3.02.2023).

Faulkner, B. (2001). Towards a Framework for Tourism Disaster Management. *Tourism Management*, *22*(2), 135–147. https://doi.org/10.1016/S0261-5177(00)00048-0

Fernando, P., & Jayawardena, C. (Chandi). (2013). Focusing on Realistic Tourism Targets for Post-war Sri Lanka. *Worldwide Hospitality & Tourism Themes*, *5*(5), 495–504. https://doi.org/10.1108/WHATT-05-2013-0031

Fernando, S., Bandara, J. S., & Smith, C. (2013). Regaining Missed Opportunities: The Role of Tourism in Post-war Development in Sri Lanka. *Asia Pacific Journal of Tourism Research*, *18*(7), 685–711. https://doi.org/10.1080/10941665.2012.695284

GDELT. (2023). *The GDELT Project*. *Intro*. Retrieved from: https://www.gdeltproject.org/ (accessed: 9.01.2023).

Gillen, J. (2014). Tourism and Nation Building at the War Remnants Museum in Ho Chi Minh City, Vietnam. *Annals of the Association of American Geographers*, *104*(6), 1307–1321. https://doi.org/10.1080/00045608.2014.944459

GOV.PL. (2022). *Środki finansowe dla osób pomagającym obywatelom Ukrainy*. Retrieved from: https://www.gov.pl/web/mswia/srodki-finansowe-dla-osob-pomagajacym-obywatelom-ukrainy (accessed: 11.08.2024).

GOV.PL. (2023). *Polski Bon Turystyczny – dla dziecka*. Retrieved from: https://www.gov.pl/web/gov/polski-bon-turystyczny---dla-dziecka (accessed: 11.08.2024).

Greenlaw, S. A., & Shapiro, D. (2017). How Changes in Income and Prices Affect Consumption Choices. *Principles of Economics 2e*. XanEdu. Retrieved from: https://openstax.org/books/principles-economics-2e/pages/6-2-how-changes-in-income-and-prices-affect-consumption-choices (accessed: 2.02.2023).

Griskevicius, V., & Kenrick, D. T. (2013). Fundamental Motives: How Evolutionary Needs Influence Consumer Behavior. *Journal of Consumer Psychology*, *23*(3), 372–386. https://doi.org/10.1016/j.jcps.2013.03.003

Gumbo, B. G. (2014). Southern African Liberation Wars: The Halting Development of Tourism in Botswana, 1960s–1990s. *South African Historical Journal*, *66*(3), 572–587. https://doi.org/10.1080/02582473.2014.902493

IEA. (2022). *Russian Supplies to Global Energy Markets*. Retrieved from: https://www.iea.org/reports/russian-supplies-to-global-energy-markets (accessed: 3.02.2023).

Kiczmachowska, E. E. (2022). The Impact of the COVID-19 Pandemic on Peer-to-Peer Accommodation Businesses: The Case of Airbnb. *Journal of Economics and Management*, *44*, 286–314. https://doi.org/10.22367/jem.2022.44.12

Madigan, T., & West, B. (2023). Western Tourism at Cu Chi and the Memory of War in Vietnam: Dialogical Effects of the Carnivalesque. *Thesis Eleven*, *174*(1), 118–134. https://doi.org/10.1177/07255136221147954

Mihalić, T. (1996). Tourism and Warfare – the Case of Slovenia. In: A. Pizam, Y. Mansfeld (Eds), *Tourism, Crime and International Security Issues* (pp. 231–246). John Wiley and Sons.

Mirisaee, S. M., & Ahmad, Y. (2018). Post-war Tourism as an Urban Reconstruction Strategy Case Study: Khorramshahr. *International Journal of Tourism Cities*, *4*(1), 81–97. https://doi.org/10.1108/IJTC-07-2017-0039

Naef, P. (2016). Tourism and the 'Martyred City': Memorializing War in the Former Yugoslavia. *Journal of Tourism and Cultural Change*, *14*(3), 222–239. https://doi.org/10.1080/14766825.2016.1169345

OECD. (2020). *OECD Tourism Trends and Policies 2020*. OECD Publishing. https://doi.org/10.1787/6b47b985-en

Omer, A. M., & Yeşiltaş, M. (2020). Modeling the Impact of Wars and Terrorism on Tourism Demand in Kurdistan Region of Iraq. *Portuguese Economic Journal*, *19*(3), 301–322. https://doi.org/10.1007/s10258-020-00178-0

Osiecki, A. (2022). Wpływ wojny w Ukrainie na gospodarkę. *Rzeczpospolita*, 25 October. Retrieved from: https://www.rp.pl/wydarzenia-gospodarcze/art37296281-wplyw-wojny-w-ukrainie-na-gospodarke (accessed: 5.02.2023).

Perles-Ribes, J. F., Ramón-Rodríguez, A. B., Moreno-Izquierdo, L., & Torregrosa Martí, M. T. (2018). Winners and Losers in the Arab Uprisings: A Mediterranean Tourism Perspective. *Current Issues in Tourism*, *21*(16), 1810–1829. https://doi.org/10.1080/13683500.2016.1225697

Rahman, F., Holdschlag, A., Ahmad, B., & Qadir, I. (2011). War, Terror and Tourism: Impact of Violent Events on International Tourism in Chitral, Pakistan. *Tourism*, *59*(4), 465–479. Retrieved from: https://search.ebscohost.com/login.aspx?direct=true&db=edo&AN=70425506&site=eds-live (accessed: 23.02.2023).

Ritchie, B. W. (2004). Chaos, Crises and Disasters: A Strategic Approach to Crisis Management in the Tourism Industry. *Tourism Management*, *25*(6), 669–683. https://doi.org/10.1016/j.tourman.2003.09.004

Ritchie, B. W. (2008). Tourism Disaster Planning and Management: From Response and Recovery to Reduction and Readiness. *Current Issues in Tourism*, *11*(4), 315–348. https://doi.org/10.1080/13683500802140372

Ritchie, B. W., & Jiang, Y. (2019). A Review of Research on Tourism Risk, Crisis and Disaster Management: Launching the Annals of Tourism Research Curated Collection on Tourism Risk, Crisis and Disaster Management. *Annals of Tourism Research*, *79*, 102812. https://doi.org/10.1016/j.annals.2019.102812

Sawicki, B. (2022). Ile węgla i skąd Polska importowała w 2022 roku. Rekord niemal pobity. *Rzeczpospolita*, 28 December. Retrieved from: https://energia.rp.pl/wegiel/art37680201-ile-wegla-i-skad-polska-importowala-w-2022-roku-rekord-niemal-pobity (accessed: 1.02.2023).

Selvanathan, S. (2007). The Effect of War and Other Factors on Sri Lankan Tourism. *Applied Economics Letters*, *14*(1), 35–38. https://doi.org/10.1080/13504850500425576

Senbeto, D. L. (2022). Crisis and Africa's Tourism Industry: A Comprehensive Review and Agenda for Future Research. *Tourism Management Perspectives*, *43*, 100992. https://doi.org/10.1016/j.tmp.2022.100992

Statistics Poland. (2022a). *Poland Macroeconomic Indicators*. Retrieved from: https://stat.gov.pl/wskazniki-makroekonomiczne/ (accessed: 9.12.2022).

Statistics Poland. (2022b). *Topics: Tourism*. Retrieved from: https://stat.gov.pl/obszary-tematyczne/kultura-turystyka-sport/turystyka/ (accessed: 3.08.2024).

Statistics Poland. (2022c). *Wykorzystanie turystycznej bazy noclegowej w marcu 2022 r. w obliczu napływu uchodźców z Ukrainy i zniesienia obostrzeń związanych z pandemią COVID-19.* Retrieved from: https://stat.gov.pl/obszary-tematyczne/kultura-turystyka-sport/turystyka/wykorzystanie-turystycznej-bazy-noclegowej-w-marcu-2022-r-w-obliczu-na-plywu-uchodzcow-z-ukrainy-i-zniesienia-obostrzen-zwiazanych-z-pandemia-covid-19,17,1.html (accessed: 9.12.2022).

Šuligoj, M. (2017). Warfare Tourism: An Opportunity for Croatia? *Economic Research – Ekonomska Istrazivanja*, *30*(1), 439–452. https://doi.org/10.1080/1331677X.2017.1305800

Tarlow, P. E. (2015). War, Terrorism, Tourism, and Morality. *International Journal of Safety and Security in Tourism and Hospitality*, *12*, 1–13. Retrieved from: https://search.ebscohost.com/login.aspx?direct=true&db=edb&AN=153424953&site=eds-live (accessed: 24.01.2023).

Teye, B. V. (1988). Coup d'Edtat and African Tourism: A Study of Ghana. *Annals of Tourism Research*, *15*(3), 329–356. https://doi.org/10.1016/0160-7383(88)90026-6

UNWTO. (2022). *Impact of the Russian Offensive in Ukraine on International Tourism*. Retrieved from: https://www.unwto.org/impact-russian-offensive-in-ukraine-on-tourism (accessed: 3.02.2023).

Wut, T. M., Xu, J. B., & Wong, S. (2021). Crisis Management Research (1985–2020) in the Hospitality and Tourism Industry: A Review and Research Agenda. *Tourism Management*, *85*, 104307. https://doi.org/10.1016/j.tourman.2021.104307