

Sigitas Urbonavicius

Chernobyl: Analysis of Young Travellers' Motivations to Visit a Unique Dark Tourism Destination

Abstract

Chernobyl is a very special case among the dark tourism destinations due to the combined technogenic and historical issues, drastic damages to the local nature and remaining elements of the potential danger to visitors in the exclusion zone. Because of this complexity, motivations to visit this destination deserve a thorough investigation from academic and managerial perspectives, as after the HBO miniseries launch in 2019 the interest of travellers keep on increasing. This study concentrates on analysis of internal (push) motivations of young travellers who were born after the event, but live in the distance of 500-700 km from Chernobyl and therefore are aware about it from their families and from public sources. Data is collected in Lithuania, where the additional awareness of Chernobyl was generated by HBO, filming most of the miniseries scenes in there. The analysis includes four types of motivations that appear to have very different influence on visiting intentions among male and female respondents. Female respondents seem to be driven by novelty-seeking and escape motivations; male by ego-enhancement and prestige. This adds to the academic knowledge on the dark tourism motivations and continues discussion regarding the gender-linked differences in tourist motivations. Having this explored, the study raises additional questions and outlines directions for future research.

Keywords: dark tourism, tourist motivations, young travellers, Chernobyl

1. Introduction

Modern tourists are motivated to visit a very wide range of destinations, and they find solid reasoning for their specific choices (Li & Cai, 2012; Nikjoo & Ketabi, 2015; Robinson, 2015). However, in terms of the uniqueness even within the same category, some destinations deserve a special consideration on behalf of researchers. One of these is Chernobyl: the place that triggered the worst nuclear reactor tragedy for the mankind in the 20th century, the place that is still very dangerous and challenging (Yankovska & Hannam, 2014; Hryhorczuk, 2014).

Chernobyl is a place located in the northern part of Ukraine, the centre of the region that underwent evacuation soon after the explosion of a nuclear reactor in a nearby nuclear power plant in 1986. Despite the fact that massive cleaning had been executed and more than three decades had passed, the place and the surrounding areas are continuously posing a great danger due to the remaining radiation levels (Marino & Nunziata, 2018). The presence of people inside the exclusion zone is allowed only in certain places and for a very limited time. Nevertheless, this permission has opened a very special destination for tourists, since the place is linked with high risk perception about radiation and health effects (Ohkuma et al., 2018). The numbers of tourists visiting the zone increases every year; the interest of tourists noticeably accelerated during the last years, after HBO's miniseries about Chernobyl was aired (Kolirin & Guy, 2019).

In terms of its type, scale and the remaining potential danger for visitors, Chernobyl is a unique destination even within the category of the so-called dark tourism destinations. It combines the aspects of technogenic disaster, human tragedy, damage and unique developments of nature, etc., but the strongest uniqueness is

Sigitas Urbonavicius, PhD, Corresponding author, Professor and Head of Marketing Department in Faculty of Economics and Business Administration, Vilnius University, Vilnius, Lithuania; ORCID ID: <https://orcid.org/0000-0003-4176-2573>;
e-mail: sigitas.urbonavicius@evaf.vu.lt

linked with the 'invisible' potential danger of the remaining radiation, that is especially well understood by the population of neighbouring regions and countries (Ohkuma et al., 2018). All these characteristics of Chernobyl might motivate tourists to visit the location. However, motivational characteristics of a destination lead to streams of tourists only when they trigger the internal motivations of people to visit the site (Jang & Cai, 2002). In other words, the so-called pull motivations are very important, but at the same time rather obvious; push (or internal) motivations are much more hidden, but equally (if not even more) important (Fodness, 1994).

This study, therefore, concentrates only on the analysis of internal (push) motivations. We concentrated on the context that allows to ensure awareness about the destination and affordability of travelling to it, controlling for the age of respondents as the age plays a significant role in motivation (Yousaf et al., 2018). The study concentrates only on young potential travellers, all of whom were born after the nuclear disaster, excluding in this way personal/experiential attachment to the event and to the destination at the moment of the event occurrence. Geographic closeness to the destination predetermines awareness about the destination: the respondents live in Lithuania, within the distance of 500-700 kilometres from Chernobyl. The distance ensures that young people have heard about the Chernobyl disaster from their parents or other representatives of elder generation, since many of them, in one or another way, had been exposed to the event. All the population of Lithuania were shocked by the event in 1986; the people were following all the available information in order to somehow avoid/reduce the potential damages likely to be caused by the radiation levels reaching the country. Additionally, numerous men participated in after-explosion cleaning efforts in Chernobyl. These facts assure that young people are aware of the essence of the event in Chernobyl and know the place without any additional explanations, making them to some degree similar to those who live nearby a dark tourism destination (Wang et al., 2019). Additionally, the relatively close distance makes a trip to Chernobyl affordable to young travellers and allows them to realistically consider such a trip. All this creates a well reasoned context for the research, in which motivations to visit Chernobyl are analysed on the basis of gender, that might have a specific importance in regards of similar destinations (Remoaldo et al., 2014; Simone-Charteris et al., 2018). These factors create a consistent background for examination of push motivations of young people towards travelling to Chernobyl. In terms of costs and duration, a trip to Chernobyl from Vilnius (Lithuania) is comparable to a typical city break type of trip to Kiev, which is a popular destination among young people from Lithuania. Both destinations are found in the same country (Ukraine), therefore, assuming their financial or cultural aspects, are similar. Though motivations to travel to Kiev are beyond the scope of this study, the analysis of that data allows some comparisons and a broader discussion on the motivations to visit Chernobyl.

Though classifications of dark tourism destinations vary and evolve (Biran & Hyde, 2013; Mionel, 2019), Chernobyl deserves the place among the extremely dark destinations not just because its historical aspect, but also due to the still existing potential danger of radiation. The main objective of this study is to explore the key push motivations of young people to visit a very special destination – Chernobyl. Based on this, several insights regarding the motivations to visit the extreme dark destinations have been developed and new research directions outlined.

2. Literature review

2.1. Background of tourist motivations

Application of the classical motivation theories are rooted in Maslow's (1943) model, modified then into the concepts of the Travel Career Cycle or Travel Life Cycle (TLC) (Pearce, 1988) and a subsequent model of the Travel Career Patterns (Pearce and Lee, 2005). The TLC mainly describes two groups of needs (self-centred and directed towards others) and concentrates on five travel motivations: relaxation, stimulation,

relationship, self-esteem and development/fulfilment. This model is hierarchical, and sees the development of motives with relation to travellers' experience. The Travel Career Patterns concept assumes a much more dynamic approach; it suggests 14 motivational factors that are internal or external and that vary in terms of their importance (Pearce & Lee, 2005).

Another stream of modelling tourist motivations is based on three major conceptual steps: the formulation of the push and pull theory of tourist motivation (Dann, 1977; Dann, 1981); the disclosure of socio-psychological motivations to travel (Crompton, 1979) and the development of the social psychology model of tourism (Iso-Ahola, 1982). The model of Iso-Ahola (1982) made an attempt to emphasize a dialectical character of tourism motivation and to demonstrate the interaction between travelling reasons and benefits, since the reasons can be the benefits and the benefits can be the reasons of tourism behaviour. This observation is very important in order to understand why categorization into push and pull motivations is sometimes very uneasy, though very convenient and therefore liked by many researchers who study tourist behaviours all around the world (Prayag & Ryan, 2011; Yousefi & Marzuki, 2015; Caber & Albayrak, 2016; Urbonavicius et al., 2017; Giddy, 2018). Commonly, pull factors that are explained as the motives that are related to the travel destination characteristics (a place itself) as they attract tourist to visit that place. Therefore, pull motives might be very specific for a location and are highly attributable to the choice of travel destination (Nikjoo & Ketabi, 2015; Todorovic & Jovicic, 2016). Push factors include the internal socio-psychological motives that arise within the traveller himself/herself rather than from the external environment (Yousaf et al., 2018). Therefore, push motives help to understand in-depth reasons of travelling in general, or when a destination is already chosen (Caber & Albayrak, 2016). Also, the internal factors (push motivations) are of key importance when the intention to travel is considered (Wen et al., 2018).

2.2. Motivations to visit dark tourism destinations

The term 'dark tourism' (used interchangeably with 'thanatourism') started to be used after Seaton (1996) specified death-related tourist activity as 'thanatourism' and Lennon and Foley (2000) analysed the link between tourism attractions and an interest in death. Since then, there were several major efforts to conceptualize dark tourism (Sharpley, 2005; Stone, 2006; Wight, 2006; Sharpley & Stone, 2009; Light, 2017); numerous studies have analyzed travelling to destinations that are linked with negative emotions and encounters (Broderick, 2010; Wei, 2012; Coats & Ferguson, 2013; Robinson, 2015; Schafer, 2016; Yan et al., 2016; Allman, 2017; Miller & Del Casino Jr, 2018; Lin et al., 2018).

The early studies on dark tourism motivations have been significantly disbursed in terms of their focus and factors considered. More recent studies still consider a very broad range of motivations but some trends may be outlined. The most important observation is that there is little evidence that the direct interest in death is an important motive for visiting places and attractions that are labelled as dark. Instead, an interest in learning and understanding past events is the most commonly reported motive (Light, 2017). Therefore, the leading motivation may be a simple curiosity, a quest for a new experience or an adventure to gain knowledge and understand something that was not known to them before (Sharpley & Stone, 2009). Curiosity seems to be a key push travel motivation associated with dark tourism; it is linked with hidden facets associated with death and destruction (Strange & Kempa 2003). However, concentration on curiosity aspect does not give an extensive understanding of motivations for visiting dark sites within the theoretical contexts that are used in examining the motivational factors related to other types of tourism. Especially, there is little linkage with a commonly used concept of push-pull factors, the internal motives for travelling; such as ego-enhancement, knowledge, punishment-minimization, self-esteem, reward maximization (Fodness, 1994) or later developments of this categorization.

Over the last decade, researchers started to emphasize the consumption of dark tourism (Stone, 2012). In this case, motivation needs to be linked with factors/theoretical models that explain the consumption (intention to

behave or behaviour). As such, the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) may be considered (Fishbein & Ajzen, 1975; Ajzen, 1991). Even though this relation might be assumed and used in the extensions of the models in tourism research (Lam & Hsu, 2004; Hsu & Huang, 2010), these models do not directly link motivational factors with the intentions to travel (Wu & Cheng, 2018).

2.3. Young people's motivations to visit Chernobyl

Each dark site is unique to some extent, which makes it attractive. However, Chernobyl is among the best world-known places for the event that happened there in 1986. One of the reactors at the Chernobyl Nuclear Power Plant exploded on 26 April 1986, forcing a region-wide evacuation and sending radioactivity across Europe (Kolirin & Guy, 2019). Even though the reactor has been covered by a sarcophagus and the exclusion zone has experienced extensive cleaning and de-activation, the territory around the nuclear plant and city Pripyat that used to have 50,000 inhabitants remain potentially dangerous to people. Travellers are currently permitted to visit Chernobyl with a guide, however, the remaining radiation is still potentially dangerous for a person who stays longer or ignores the request to stay on the best cleaned parts of the territory (Hryhorczuk, 2014). There are multiple studies on the consequences of the Chernobyl disaster in terms of medical and psychological outcomes (Saenko, 2011; Bromet et al., 2011; Ohkuma et al., 2018). However, at the same time, Chernobyl has become an increasingly popular tourist destination, and one of the reasons for this (at least for some visitors) is the potential danger of the site (Hryhorczuk, 2014).

The majority of empirical studies mainly concentrate on the pull motivations, thus leaving a research gap in the analysis of push type (internal) factors (Robinson, 2015). Chernobyl may pull tourists for its potentially dangerous and challenging characteristics; however, people might be driven by different internal (push) motives. In order to address this research gap, this study concentrates on push factors only. However, considering the specificity of Chernobyl, some 'traditional' motivational factors are more likely to deserve the analysis than others.

The importance of personal curiosity in case of dark tourism travelling has already been discussed above. This motivational direction is typically operationalized by novelty-seeking or knowledge-seeking factors; this depends on the aim of a study to assess more rational (knowledge) or less rational (overall novelty) aspects (Light, 2017). There is a strong reason to assume that novelty-seeking is a strong reason for visiting Chernobyl. Therefore, the hypothesis is:

- H1: Novelty-seeking motivation positively influences the intention to visit Chernobyl.

Visiting extreme places may also be triggered by the internal motivation of escaping the daily routine, since drastically different impressions help in breaking through the routine or boredom. Previous studies reveal that escape motivations and novelty-seeking are among the leading reasons for dark tourism (Mudzanani, 2014). Therefore, the second hypothesis is:

- H2: Escape motivation positively influences the intention to visit Chernobyl.

Moreover, visiting special and extreme sites have the meanings of overcoming dangers and achieving something exclusive. This naturally addresses the aspects of ego-enhancement (sharing experiences to others after travelling), thus developing a higher status (prestige) among peers. This allows to develop two hypotheses as follows:

- H3: Ego-enhancement motivation positively influences the intention to visit Chernobyl.
- H4: Prestige motivation positively influences the intention to visit Chernobyl.

In addition, it is acknowledged that tourist motivations vary depending on numerous demographic factors, most importantly – on age and gender (Remoaldo et al., 2014; Simone-Charteris et al., 2018; Yousaf et al., 2018). Naturally, people from diverse demographic backgrounds can possess different motivations for visiting

the same destination (Rittichainuwat, 2008). Since the current study concentrates on a consistent group of young people, the factor of age is controlled. However, there is an important opportunity to develop a hypothesis about the differences in motivations between genders when visiting a potentially dangerous dark tourism destination.

- H5: Novelty-seeking, escape, ego-enhancement and prestige motivation influence differently the intention of potential male and female travellers to visit Chernobyl.

This hypothesis needs to be specified into:

- H5a: Novelty-seeking motivation positively influences the female travellers' intention to visit Chernobyl;
- H5b: Escape motivation positively influences the female travellers' intention to visit Chernobyl;
- H5c: Ego-enhancement positively influences the male travellers' intention to visit Chernobyl;
- H5d: Prestige motivation positively influences the male travellers' intention to visit Chernobyl.

3. Measures and sample

An issue of key importance in studies conducted on tourist motivations is a fact that research is based on scales that are new or modified for almost each research. The importance of research methodologies was noticed long ago (Dann & Pearce, 1988), however, the progress in developing thoroughly validated scales is relatively slow. There are good examples of this type of research, however, they are typically linked with studies of a rather narrow focus (Fodness, 1994; Kim et al., 2010; Wen et al., 2018; Ying & Wen, 2019) or a test of well validated scales for tourism research (Yusof & Shah, 2008). At the same time, general motivational factors in tourism research often remain to be measured on the basis of a series of items that are grouped into factors in the process of the analysis of the obtained data. These factors are named in accordance with the focus of a study, but their titles are not necessarily consistent with the same or very similar factors in other studies, which creates difficulties in making comparisons across various studies (Fodness, 1994; Light, 2017).

The best solution seems to measure motivational factors with the same groups of items that have proved to be grouped into a factor in a reliable and valid way in former studies. However, it is important to remember that these groups of items are not 'real' scales that have been developed according to the necessary scale development procedures, and may fail when applied on a different sample. Therefore, they need to be critically pre-selected, modified (if this is necessary for the validity reasons) prior to the study and once again verified by applying factor analysis and reliability check after the study.

This study uses scales that have shown adequate reliability in former studies. Travel intention was measured on a typical 3-item scale that includes cognitive, conative and affective aspects of the intention (Lam & Hsu, 2006). Novelty-seeking motivation has been assessed on a 5-item novelty and knowledge scale (Li & Cai, 2012). This decision was based on the fact that it had been used in a study that was relating motivations with intentions and demonstrated good reliability there (Cronbach's Alpha 0.803). However, that study concentrated on a different type of travelling that was not linked with potential dangers and subsequent encounter with a strong emotional aspect. Therefore, it was decided to concentrate on the items that measure experience and feelings (the novelty aspect), by carefully watching the statistical performance of other items. The escape scale was taken from Jang and Cai (2002). These authors thoroughly modified similar escape scales used by earlier studies and achieved good reliability using this 3-item scale ($\alpha=0.809$). Ego-enhancement motivation was assessed on a 3-item scale taken from Jang et al. (2009). This (or very similar) scale has been used in many studies; however, the above mentioned study applied it for respondents who belonged to a narrow age group (as in this study), and was reliable in these circumstances ($\alpha=0.81$). A five-item prestige scale was taken from Mohammad and Som's (2010) study ($\alpha=0.8533$). All the items were measured on a Likert scale from 1 (totally disagree) to 5 (totally agree). Additionally, the demographic parameters were recorded.

This study concentrated on the age group that had no personal experience with the Chernobyl event (were born later), but have potential possibility to visit the site on their own. They also potentially have a sufficient budget for such a trip, since it may cost around 200 EUR (including the trip and services of a travel agency). At the same time, all the respondents were aware of the Chernobyl event from their personal sources (family, peers, media); the knowledge has been additionally triggered by the very high ranked HBO miniseries premiered in the US and UK in the beginning of May, 2019 and become available for the international audience immediately after that. In order to additionally ensure that all respondents know Chernobyl, the data collection was performed in Lithuania, where the HBO miniseries was filmed. This process was extensively presented in mass media and discussed in social networks, thus ensured required awareness about the site for the study. As a result, the level of a potential travelling possibility and an adequate awareness about the destination allowed to measure the intention to visit Chernobyl together with the internal (push) motivations.

In parallel, the same questionnaire was applied to another sample (with the same demographic characteristics), asking about the motivations and intentions to travel to Kiev, Ukraine. The reasons for this included: (a) additional verification of scales and (b) acquiring the possibility to expand the discussion on motivations to go to Chernobyl comparing the findings with a typical city break type of travelling that takes the same time, resources and the destination which is based in the same country.

The survey was performed online, using convenience sampling and included 256 respondents from Lithuania. Among them, 19.1% were men and 80.9% women; in terms of age, 52.0% of them belonged to the age group of 18-22, while 48% were between 23-29 years old. In terms of an individual monthly income, 52.7% of the respondents reported to have an income of 500 Euro (or lower), while 47.3% indicated higher amounts.

The other sample that answered questionnaire about Kiev included 249 respondents; the sample structure was similar in terms of the respondents' age, gender and income (t-test showed no significant differences). This allowed to ensure consistency of measurements and to make comparisons as in other studies that include two samples (Urbonavicius & Sezer, 2019).

4. Analysis, results and discussion

4.1. Factor analysis and reliability tests

The exploratory factor analysis (maximum likelihood, promax rotation) resulted in the reduction of the number of items in the scale of novelty-seeking. The remaining items primarily reflected the novelty element. Also, during the analysis the number of prestige scale items was reduced from 5 to 3. As a result, KMO = 0.707; Bartlett's Test of Sphericity 1863.815; $p=0.000$. There were 3.0% of non-redundant residuals with absolute values greater than 0.05. All these parameters allowed further analysis. The five factors extracted from the data explain 66.73% of the total variation (Table 1).

Table 1
Exploratory factor analysis

Factors and items	Factor					Variance explained
	1	2	3	4	5	
Factor: Intention						20.296
I would like to visit ...	0.955					
I will visit...	0.740					
I want to visit...	0.965					
Factor: Ego-enhancement						16.178
When I go home, I talk to everybody about my destination		0.688				
I like to talk about my destination, when I get home		0.969				
I like to be able to talk about the places I've visited and the things I've seen on destination		0.888				

Table 1 (continued)

Factors and items	Factor					Variance explained
	1	2	3	4	5	
Factor: Novelty-seeking						14.420
Experiencing something different					0.579	
Feeling the special atmosphere of the destination					0.914	
Factor: Escape						10.151
Getting away from the demands of home			0.660			
Getting a change from a busy job			0.878			
Escaping from the ordinary			0.723			
Factor: Prestige						5.682
To increase my social status				0.582		
To visit a place that my friends have been to				0.824		
To visit a destination that would impress my friends and family				0.803		
Total variance explained:						66.727

The reliability of all factors is satisfactory, namely, intention $\alpha=0.914$; ego-enhancement $\alpha=0.879$; novelty-seeking $\alpha=0.728$; escape $\alpha=0.786$ and prestige $\alpha=0.771$. All this allowed to perform further analysis.

4.2. Tests of hypotheses

The first four hypotheses were tested with a linear multiple regression analysis that includes four motives and controls for gender. The model was statistically significant ($F = 5.530$ and $p = 0.000$), $R^2 = 0.100$ and showed that two types of motives influence the intention to travel to Chernobyl (Table 2).

Table 2
Influence of motivations on travelling intention

Independent variables	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
(Constant)	2.240	0.597		3.749	0.000
Ego-enhancement	0.040	0.092	0.028	0.438	0.662
Novelty-seeking	0.250	0.120	0.140	2.088	0.038
Escape	0.177	0.106	0.111	1.673	0.096
Prestige	-0.060	0.075	-0.048	-0.796	0.427
Gender	-0.709	0.175	-0.246	-4.054	0.000

Two out of four motivational factors have a significant influence on the intention to travel, where $p < 0.1$ criterion is applied which is absolutely appropriate in exploratory studies (Figueiredo Filho et al., 2013).

This allows to accept hypothesis H1 (Novelty-seeking motivation positively influences the intention to visit Chernobyl), where $B=0.250$ and $p=0.0388$ and H2 (Escape motivation positively influences the intention to visit Chernobyl); $B=0.177$ and $p=0.096$. Hypotheses H3 (Ego-enhancement motivation positively influences the intention to visit Chernobyl) and H4 (Prestige motivation positively influences the intention to visit Chernobyl) are rejected, since in both instances $p > 0.1$.

As expected, gender is very important in predicting the intention; females are significantly less intending to visit the destination than males. Therefore, the controlling for gender in this regression model is crucially important and confirms the relevance of further analysis for the two gender groups separately.

Hypotheses H5a (Novelty-seeking motivation positively influences the female travellers' intention to visit Chernobyl) and H5b (Escape motivation positively influences the female travellers' intention to visit Chernobyl) were tested using multiple regression on the basis of the female part of the sample. In order to consider

multicollinearity among all the four motives under analysis, the model includes all 4 motives. The model is significant ($F=2.654$ $p=0.034$), $R^2 = 0.050$. It shows (Table 3) that both hypotheses (H5a and H5b) may be accepted at the marginal level (though in case of Escape, p minimally exceeds 0.1, which is attributable to a relatively small sample size).

Table 3
Influence of motivations on travelling intention among female respondents

Independent variables	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
(Constant)	1.385	0.707		1.959	0.052
Ego-enhancement	-0.014	0.104	-0.009	-0.131	0.896
Novelty-seeking	0.280	0.140	0.151	2.003	0.047
Escape	0.199	0.121	0.122	1.644	0.102
Prestige	-0.004	0.087	-0.003	-0.043	0.966

The same type of regression analysis performed on the basis of data obtained from male respondents resulted in a significant model ($F=3.483$, $p=0.015$) that explains almost $\frac{1}{4}$ of the variation of a dependant variable ($B=0.241$). The motives that have a significant influence on the intention are different from those observed in the female group (Table 4)

Table 4
Influence of motivations on travelling intention among male respondents

Independent variables	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
(Constant)	3.670	0.965		3.802	0.000
Ego-enhancement	0.393	0.178	0.347	2.213	0.032
Novelty-seeking	-0.059	0.213	-0.045	-0.279	0.781
Escape	-0.003	0.192	-0.002	-0.014	0.989
Prestige	-0.352	0.133	-0.351	-2.650	0.011

The model is used to test H5c (Ego-enhancement positively influences the male travellers' intention to visit Chernobyl) and (H5d (Prestige motivation positively influences the male travellers' intention to visit Chernobyl)).

In both cases, the influence of the examined motivations on the intention to visit Chernobyl is significant (respectively, $p=0.032$ and $p=0.011$). Ego-enhancement has a very strong influence ($B=0.393$), and this allows to confirm H5c. The influence of prestige motivation is almost equally strong, but (surprisingly) negative ($B=-0.352$). This does not allow to confirm the hypothesis and raises many issues for the discussion and further research.

However, testing sub-hypotheses of H5 allowed to see that H5 (novelty-seeking, escape, ego-enhancement and prestige motivation differently influence the intention to visit Chernobyl of the potential male and female travellers) is confirmed, since there are differences among genders in terms of all four motivation factors under analysis.

4.3. Discussion

The discussion on findings requires a more precise analysis of Chernobyl, as a specific tourist destination, linking this with the population involved in this study. Looking formally, Chernobyl is a destination that is known for its technogenic nuclear catastrophe that happened in a peaceful period. In this sense, it is most comparable to Fukushima that has also been examined in the context of dark tourism (Yamamura, 2012; Lin

et al., 2018) and much less – with Hiroshima that happened during a war period and much earlier (Broderick, 2010; Schafer, 2016). However, Chernobyl differs from Fukushima in terms of the damage to the nature in the region (Marino & Nunziata, 2018) and, much more importantly – by the remaining visitors of the potential danger at the site (especially, if they are not precisely following the regulations). In this regard it is unique, since this aspect is somehow only minimally present in the dark tourism sites of earthquake catastrophes in extremely active seismic zones (Yan et al., 2016). However, post-earthquake sites are typically visited because of personal involvement/losses of close people (Coats & Ferguson, 2013), which was not the case for the current study.

The fact that Chernobyl issue has been revisited in public media (especially in Lithuania, where a significant part of scenes was filmed), is not unique, but important in terms of increasing awareness and raising considerations about travelling to the site; generally, the role of the media must not be understated (Seaton & Lennon 2004). The importance of the movie-induced awareness and interest regarding the dark destination has not been among the major research themes of film tourism research (Connell, 2012), however, the current study demonstrates the relevance of this research aspect.

Since not many dark tourism studies concentrate on push motivations, the significance of Novelty-seeking and Escape in the sample under analysis corresponds to the known importance of these motivations for many types of tourism, including travelling to the dark sites (Light, 2017). However, this differs from the findings obtained by the parallel study with regard to visiting Kiev. First, gender has no influence on the results shown by the multiple regression (gender control is not significant). Secondly, the two significant motivations to visit Kiev include ego-enhancement and escape, novelty (that is very important in case of Chernobyl) being insignificant. This allows stating that Chernobyl is perceived as a novel and challenging place for discoveries for the young population.

It may be proposed that the issue of the potential danger and challenge to one's health may be responsible for the very high influence of ego-enhancement motivation on visiting intentions among the male respondents and for the relatively low intention to visit Chernobyl among female respondents. There is no surprise that escape motivation is important to the females' part of the sample, since this motivation is rather universal across numerous studies (Light, 2017). However, novelty motivation among female respondents seems to play a similar role as ego-enhancement among males: it reflects the perceived specificity of Chernobyl as a tourism destination.

However, the above mentioned considerations can hardly explain the significantly negative influence of prestige motivation among male respondents in this study. Without an additional analysis, all the interpretations in this regard seem very speculative.

5. Conclusions

Two key conclusions can be derived from the this study. First, it confirms the significance of pull motivations when they are directly related with travelling intention to a potentially dangerous dark tourism site. This linkage continues to require a solid theoretical background, and, hopefully, the empirical evidence from this study may serve an additional trigger to those researchers that are apt to develop a novel background for linking motivations with behavioural intentions.

Second, this study provides evidence that motivations to visit potentially dangerous dark tourism destinations significantly differ on the basis of gender, while this is absolutely not important for a typical city-break type of travelling within a comparable sample. This does not mean that gender-linked motivations in case of dangerous destinations vary only in terms of the level of their strength. The motivations that are linked with the intentions are radically different; the ones that trigger motivations of another gender are insignificant.

Both these findings have implications for the tourism industry. The main managerial implication for tourism firms includes the advice to consider a different way of promotion of trips to potentially dangerous dark tourism sites: these might be based not just on the site characteristics, but also on the internal (push) motivations of the potential travellers. Since the motivations to travel to this type destination vary by gender, the destination-promoting communication messages may be specified and differentiated on that basis. Additionally, the findings show that the planning of the tourism to dark destinations may and should be coordinated with the timing of independently happening awareness-building events, such as launches of destination-linked movies/series. In terms of the dark tourism services content, the tourism management might benefit from the experience of film tourism that largely emphasizes linkages between the movie scenes and the destination elements. These considerations are important for tourism policy-makers, dark destination marketers and for the managers of tourism firms.

Obviously, this study has its limitations. One aspect of this study may be attributed both to the category of its advantages and to limitations: this is an issue about generalization of the findings. Typically, it is very advantageous when findings from a study may be generalized to numerous similar contexts and situations. However, the uniqueness of the analyzed destination (especially – because of the element of potential danger of the site) just partly allows extending the conclusions to other dark tourism destinations, since they do not necessarily have the same characteristics. This could be considered as a limitation of the research. At the same time, the deep insights into the unique context may be considered as positive characteristic of the current study.

Other limitations are more technical and linked with the data used in this study. As in many other studies, the size of the sample had an influence on the significance level in regressions; a relatively smaller number of male respondents also may be considered as a limitation of the current study. However, all this did not affect the exploratory power of the study and allowed to see directions for further research.

The main direction of the further research is suggested by a rather unexpected relation between the prestige motivation and intentions to visit the dark tourism site among male respondents. The reasons of this relationship were outside the scope of the current study, but may present an interesting topic for the future research. Seemingly, there are two ways to elaborate this issue: (a) to employ a qualitative study and/or to repeat a similar survey with more variables that are linked with prestige motivations.

Another direction/idea for future research would be to assess motivations of visiting Chernobyl by comparing two age groups: the young generation and the one that personally experienced the fact of Chernobyl explosion while living within the distance of 500-700 km from the place. This would allow to assess the lingering effects of the personal exposure to the event.

Acknowledgement:

The author thanks Indre Sabaliauskaite, a former student of Vilnius University, for assistance in collecting data for this study.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Allman, H.R. (2017). *Motivations and intentions of tourists to visit dark tourism locations* [Doctoral dissertation]. Iowa State University.
- Biran, A., & Hyde, K.F. (2013). New perspectives on dark tourism. *International Journal of Culture, Tourism and Hospitality Research*, 7(3), 191-198.
- Broderick, M. (2010). Topographies of trauma: Dark tourism, world heritage and Hiroshima. *Intersections: Gender and Sexuality in Asia and the Pacific*, 24. <http://intersections.anu.edu.au/issue24/broderick.htm>

- Bromet, E.J., Havenaar J, & Guey L.T. (2011). A 25-year retrospective review of the psychological consequences of the Chernobyl accident. *Clinical Oncology*, 23, 297-305.
- Caber, M., & Albayrak, T. (2016). Push or pull? Identifying rock climbing tourists' motivations. *Tourism Management*, 55, 74-84.
- Coats, A., & Ferguson, S. (2013). Rubbernecking or rejuvenation: Post earthquake perceptions and the implications for business practice in a dark tourism context. *Journal of Research for Consumers*, 23(1), 32-65.
- Connell, J. (2012). Film tourism—Evolution, progress and prospects. *Tourism Management*, 33(5), 1007-1029.
- Crompton, J.L. (1979). Motivations for pleasure vacation. *Annals of Tourism Research*, 6(4), 408-424.
- Dann, G.M. (1977). Anomie, ego-enhancement and tourism. *Annals of Tourism Research*, 4(4), 184-194.
- Dann, G.M. (1981). Tourist motivation an appraisal. *Annals of Tourism Research*, 8(2), 187-219.
- Dann, G., Nash, D., & Pearce, P. (1988). Methodology in tourism research. *Annals of Tourism Research*, 15(1), 1-28.
- Figueiredo Filho, D.B., Paranhos, R., Rocha, E.C.D., Batista, M., Silva Jr, J.A.D., Santos, M.L.W. D., & Marino, J.G. (2013). When is statistical significance not significant? *Brazilian Political Science Review*, 7(1), 31-55.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. *Journal of Business Venturing*, 5, 177-189.
- Fodness, D. (1994). Measuring tourist motivation. *Annals of Tourism Research*, 21(3), 555-581.
- Giddy, J.K. (2018). Adventure tourism motivations: A push and pull factor approach. *Bulletin of Geography. Socio-economic Series*, 42(42), 47-58.
- Hryhorczuk, N. (2014). *Radioactive heritage: An autoethnographic investigation of Chernobyl as a dark heritage site* [Doctoral dissertation]. University of Illinois at Urbana-Champaign.
- Hsu, C.H., & Huang, S. (2010). Formation of tourist behavioral intention and actual behavior. In *2010 7th International conference on service systems and service management* (pp. 717-722). IEEE.
- Iso-Ahola, S.E. (1982). Toward a social psychological theory of tourism motivation: A rejoinder. *Annals of Tourism Research*, 9(2), 256-262.
- Jang S., Bai B., Hu C., Wu C.E. (2009). Affect, travel motivation, and travel intention: A senior market. *Journal of Hospitality & Tourism Research*, 33(1), 51-73.
- Jang, S., & Cai, L.A. (2002). Travel motivations and destination choice: A study of British outbound market. *Journal of Travel & Tourism Marketing*, 13(3), 111-133.
- Kim, Y.H., Goh, B.K., & Yuan, J. (2010). Development of a multi-dimensional scale for measuring food tourist motivations. *Journal of Quality Assurance in Hospitality & Tourism*, 11(1), 56-71.
- Kolirin, L., & Guy, J. (2019, July 11). Chernobyl to become official tourist attraction, Ukraine says. *CNN Travel*. <https://edition.cnn.com/travel/article/chernobyl-tourist-attraction-intl-scli/index.html>
- Lam, T., Hsu C.H. (2006). Predicting behavioral intention of choosing a travel destination. *Tourism Management*, 27, 589-599.
- Lam, T., & Hsu, C.H. (2004). Theory of planned behavior: Potential travelers from China. *Journal of Hospitality & Tourism Research*, 28(4), 463-482.
- Lennon, J., & Foley, M. (2000) *Dark tourism: The attraction of death and disaster*. Continuum.
- Li, M., & Cai, L.A. (2012). The effect of personal values on travel motivation and behavioral intention. *Journal of Travel Research*, 51(4), 473-487.
- Light, D. (2017). Progress in dark tourism and thanatourism research: An uneasy relationship with heritage tourism. *Tourism Management*, 61, 275-301.
- Lin, Y., Kelemen, M., & Tresidder, R. (2018). Post-disaster tourism: Building resilience through community-led approaches in the aftermath of the 2011 disasters in Japan. *Journal of Sustainable Tourism*, 26(10), 1766-1783.
- Marino, F., & Nunziata, L. (2018). Long-term consequences of the Chernobyl radioactive fallout: An exploration of the aggregate data. *The Milbank Quarterly*, 96(4), 814-857.
- Maslow, A.H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.
- Miller, J.C., & Del Casino Jr, V.J. (2018). Negative simulation, spectacle and the embodied geopolitics of tourism. *Transactions of the Institute of British Geographers*, 43(4), 661-673.

- Mionel, V. (2019). Dark tourism and thanatourism: Distinct tourism typologies or simple analytical tools? *Tourism: An International Interdisciplinary Journal*, 67(4), 423-437.
- Mohammad, B.A.M.A.H., & Som, A.P.M. (2010). An analysis of push and pull travel motivations of foreign tourists to Jordan. *International Journal of Business and Management*, 5(12), 41-50.
- Mudzanani, T. (2014). Why is death so attractive? An analysis of tourists' motives for visiting the Hector Peterson memorial and museum in South Africa. *Mediterranean Journal of Social Sciences*, 5(15), 570-574.
- Nikjoo, A.H., & Ketabi, M. (2015). The role of push and pull factors in the way tourists choose their destination. *Anatolia*, 26(4), 588-597.
- Ohkuma, R., Takahashi, J., Sharshakova, T., Sachkouskaya, A., Lyzikov, A., Voropaev, E., Ruzanov D., Orita M., Taira, Y., & Takamura, N. (2018). Thirty-two years post-Chernobyl: Risk perception about radiation and health effects among the young generation in Gomel, Republic of Belarus. *Journal of Radiation Research*, 59(6), 765-766.
- Pearce, P.L. (1988). *Recent research in psychology. The Ulysses factor: Evaluating visitors in tourist settings*. Springer-Verlag Publishing.
- Pearce, P.L., & Lee, U.I. (2005). Developing the travel career approach to tourist motivation. *Journal of Travel Research*, 43(3), 226-237.
- Podoshen, J.S. (2013). Dark tourism motivations: Simulation, emotional contagion and topographic comparison. *Tourism Management*, 35, 263-271.
- Prayag, G., & Ryan, C. (2011). The relationship between the 'push' and 'pull' factors of a tourist destination: The role of nationality—An analytical qualitative research approach. *Current Issues in Tourism*, 14(2), 121-143.
- Remoaldo, P.C., Vareiro, L., Ribeiro, J.C., & Santos, J.F. (2014). Does gender affect visiting a World Heritage Site? *Visitor Studies*, 17(1), 89-106.
- Rittichaiuwat, N. (2008). Responding to disaster: Thai and Scandinavian tourists' motivation to visit Phuket, Thailand. *Journal of Travel Research*, 46(4), 422-432.
- Robinson, N. (2015). *Dark tourism motivations: An investigation into the motivations of visitors to sites associated with dark tourism* [Doctoral dissertation]. University of Salford.
- Saenko, V., Ivanov, V., Tsyb, A., Bogdanova, T., Tronko, M., Demidchik, Y., & Yamashita, S. (2011). The Chernobyl accident and its consequences. *Clinical Oncology*, 23(4), 234-243.
- Schafer, S. (2016). From geisha girls to the atomic bomb dome: Dark tourism and the formation of Hiroshima memory. *Tourist Studies*, 16(4), 351-366.
- Seaton, A. (1996). Guided by the dark: From thanatopsis to thanatourism. *International Journal of Heritage Studies*, 2(4), 234-244.
- Sharpley, R. (2005). Travels to the edge of darkness: Towards a typology of dark tourism. In C. Ryan et al. (Eds.), *Taking tourism to the limits: Issues, concepts and managerial perspectives* (pp. 217-228). Elsevier.
- Sharpley, R., & Stone, P.R. (Eds.). (2009). *The darker side of travel: The theory and practice of dark tourism*. Channel View Publications.
- Simone-Charteris, M.T., Kirkpatrick, J., & McLaughlin, C. (2018). An investigation of the differences that exist between generations in relation to supporting dark tourism in Northern Ireland. *DBS Business Review*, 2, 69-88.
- Stone, P.R. (2006). A dark tourism spectrum: Towards a typology of death and macabre related tourist sites, attractions and exhibitions. *Tourism: An Interdisciplinary International Journal* 54(2), 145-160.
- Stone, P.R. (2012). Dark tourism and significant other death: Towards a model of mortality mediation. *Annals of Tourism Research*, 39(3), 1565-1587.
- Strange, C., & Kempa, M. (2003). Shades of dark tourism: Alcatraz and Robben island. *Annals of Tourism Research*, 30, 386-403.
- Todorovic, N., & Jovicic, D. (2016). Motivational factors of youth tourists visiting Belgrade. *Journal of the Geographical Institute "Jovan Cvijic" SASA*, 66(2), 273-289.
- Urbonavicius, S., & Sezer, A. (2019). Accommodation providers' motives in sharing economy: Comparison between Turkey and Lithuania. *International Journal of Culture, Tourism and Hospitality Research* 13(4), 393-409.
- Urbonavicius, S., Palaima, T., Radaviciene, I., & Cherian, J. (2017). Push and pull factors of senior travelers: The lingering influence of past restrictions. *Market-Tržište*, 29(1), 93-108.

- Wang, S., Chen, S., & Xu, H. (2019). Resident attitudes towards dark tourism: A perspective of place-based identity motives. *Current Issues in Tourism*, 22(13), 1601-1616.
- Wei, D. (2012). *Tourism motivation for visiting dark tourism sites: A case study of the memorial to the victims of the Nanjing massacre* [Doctoral dissertation]. Glasgow Caledonian University.
- Wen, J., Meng, F., Ying, T., Qi, H., & Lockyer, T. (2018). Drug tourism motivation of Chinese outbound tourists: Scale development and validation. *Tourism Management*, 64, 233-244.
- Wight, A.C. (2006). Philosophical and methodological praxes in dark tourism: Controversy, contention and the evolving paradigm. *Journal of Vacation Marketing*, 12(2), 119-129.
- Wu, H.C., & Cheng, C.C. (2018). What drives supportive intentions towards a dark tourism site? *International Journal of Tourism Research*, 20(4), 458-474.
- Yamamura, E. (2012). Experience of technological and natural disasters and their impact on the perceived risk of nuclear accidents after the Fukushima nuclear disaster in Japan 2011: A cross-country analysis. *The Journal of Socio-Economics*, 41(4), 360-363.
- Yan, B.J., Zhang, J., Zhang, H.L., Lu, S.J., & Guo, Y.R. (2016). Investigating the motivation–experience relationship in a dark tourism space: A case study of the Beichuan earthquake relics, China. *Tourism Management*, 53, 108-121.
- Yankovska, G., & Hannam, K. (2014). Dark and toxic tourism in the Chernobyl exclusion zone. *Current issues in Tourism*, 17(10), 929-939.
- Ying, T., & Wen, J. (2019). Exploring the male Chinese tourists' motivation for commercial sex when travelling overseas: Scale construction and validation. *Tourism Management*, 70, 479-490.
- Yousaf, A., Amin, I., Santos, C., & Antonio, J. (2018). Tourist's motivations to travel: A theoretical perspective on the existing literature. *Tourism and Hospitality Management*, 24(1), 197-211.
- Yousefi, M., & Marzuki, A. (2015). An analysis of push and pull motivational factors of international tourists to Penang, Malaysia. *International Journal of Hospitality & Tourism Administration*, 16(1), 40-56.
- Yusof, A., & Shah, P.M. (2008). Application of leisure motivation scale to sport tourism. *International Journal of the Humanities*, 6(1), 105-113.

Received: September 25, 2019

Revised: May 22, 2020

Accepted: September 03, 2020

Refereed Anonymously