

ATTITUDES OF VISITORS TOWARDS CHRISTMAS LIGHTING AT THE CHRISTMAS MARKET IN THE FACE OF THE ENERGY AND CLIMATE CRISIS

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Purpose: The main objective of the study conducted was to determine the attitude towards Christmas lighting in the context of an energy crisis.

Design/methodology/approach: A regression model developed during the research illustrates the factors that shape the respondents' attitudes towards holiday illuminations. The study utilized theories such as Ajzen's Theory of Planned Behavior and the Technology Acceptance Model by Davis.

Findings: It was found that the respondents have a positive attitude towards the analysed illuminations, which is strongly influenced by their perceived usefulness, including the opportunity to take interesting photos, as well as awareness of the energy-saving solutions used.

Research limitations/implications: The study can serve as a starting point for decision-makers on behalf of local governments in researching the attitudes of visitors to local events. However, the possibility of prediction is limited due to the sample selection used.

Practical implications: The current energy crisis, climate change, and other factors are prompting people to save energy. However, will rational arguments about the need to reduce energy consumption change the priorities of residents and local community leaders and convince them to give up their traditions and holiday attractions? The energy crisis triggered by Russia's invasion of Ukraine has led many local governments in Poland to forgo traditional city decorations with holiday lights or to cancel Christmas markets. However, some cities, such as Gdańsk, have preserved the holiday traditions while promoting energy-efficient solutions. This created an opportunity to study the attitudes and opinions of visitors to the Gdańsk Christmas Market during a period of wide-ranging debate on the need for energy conservation by local governments.

Originality/value: Studying the specific attitudes of event participants, especially in the context of Christmas markets, is a rarely addressed issue. Thanks to the analyses conducted, the significance of factors influencing the investigated attitudes has been presented.

Keywords: Event Marketing, Sustainable energy development, Christmas market, Theory of Planned Behavior.

Category of the paper: Research paper.

1. Introduction

Christmas markets are a commercial and cultural event which many cities around the world have been involved in organizing since the Middle Ages. Their tradition can be traced back to Roman culture (Brida et al., 2012; Szymanderska, 2005), but, due to their flexibility, the tradition of Christmas markets has also been adopted in other cultural circles, including the American (Chacko, Schaffer, 1993), Anglo-Saxon (Halpenny et al., 2021), Romance (Casteran, Roederer, 2013), Germanic (Broeckerhoff, Galalae, 2022; Spennemann, Parker, 2021), and Slavic (Kantor, 2017) cultures. According to Spennemann and Parker, Christmas markets provide visitors with a multisensory experience that constitutes a complex form of intangible heritage (Spennemann, Parker, 2021).

In this article, the authors decided to focus on the visual aspect of Christmas markets, which is created by various holiday decorations, including illuminations. The study described in the paper examines the attitudes of Christmas market participants towards such holiday illuminations, which are an important part of the decorations in the area where the markets take place. However, Christmas lighting is energy-intensive and costly, which, given the energy and climate crisis, may be perceived by some as unnecessary. Therefore, the authors believe that understanding the attitudes of participants at the Gdańsk Christmas Market towards holiday lighting can contribute to reassessing or confirming the validity of similar organizers' actions regarding illuminations and serve as a voice in the discussion about the justification of costs incurred by local governments or entities responsible for adorning the city during the holiday season. It is important to note that such attractions are part of the cultural heritage and can impact the attractiveness of urban spaces for both tourists and residents, while stimulating socio-economic development.

During the pre-Christmas period, Christmas markets occupy an important part of the urban public space, where various stalls and decorations are installed. They are often located near major tourist routes, significant in the commercial, historical, or cultural context of the city, thus influencing the experiences of tourists and residents who visit their area. These events often attract thousands of visitors, making their economic, environmental, and social impact on the surrounding environment significant.

The year 2022 was a period of struggle worldwide with the consequences of the war in Ukraine (Mnif et al., 2022; Mroua, Bouattour, 2023). One of the most significant consequences of this conflict was an energy crisis associated with structural changes in fossil fuel supply and inadequate access to renewable energy sources (Thorp, 2022). As a response, many countries, especially in Europe, called on communities to save energy (Parag et al., 2023). Poland is one of the countries where a relatively small percentage of energy comes from renewable sources, and at the end of 2022, local governments faced a sharp increase in energy prices. As a solution, many local authorities chose to reduce the city's lighting, including a decrease in the number of

Christmas illuminations. This decision also resonated with one of the demands of the European movement for mitigating the effects of climate change. German environmentalists proposed that not only cities but also owners of private homes and apartments should give up Christmas illuminations in the name of combating the consequences of the energy and climate crisis (Mendgen, 2022).

However, for many people, the Christmas season is a time when savings are not a priority. The desire for magical and sparkling holidays often triumphs over reason and costs (Freeman, Bell, 2013). In the context of Christmas markets, decorations, especially Christmas illuminations, are an important aspect and, according to Prideaux and Glover (2015), they constitute one of the most significant Christmas symbols. The market space, including the illuminations, is designed to create places of interaction between event attendees and the local architecture, aligning with contemporary trends in the arrangement of city areas where such events take place (Smith et al., 2020).

Furthermore, as indicated by Werner, Peterson-Lewis, and Brown (1989), pre-Christmas decorating not only has an aesthetic and traditional dimension but can also influence the perception of individuals who embrace this tradition. They are perceived by others as more friendly, sociable, open, and oriented towards integration and socialization compared to individuals who do not decorate their surroundings. According to the findings of this study, Christmas decorations contribute to social evaluations and impressions. Additionally, creating a cohesive Christmas atmosphere through scents, music, and decorations leads to consumers having a more favourable evaluation of the selling environment, its surroundings, and the offered products. Moreover, as demonstrated by an experimental study conducted by Spangenberg, Grohmann, and Sprott (2005) during the Christmas season in a retail store, inconsistency in aspects such as the use of non-seasonal music and Christmas scents leads to lower consumer ratings.

The significance of the 'Christmas ambiance' created through street and store decorations, such as Christmas lighting, trees, and the availability of special Christmas-related food products, has been highlighted in the context of the development of tourist destinations by Prideaux and Glover (2015). Therefore, the issue of the attitudes held by residents and tourists towards Christmas illuminations during Christmas markets is particularly important, especially from the perspective of marketing (Li et al., 2016) and the energy policies of cities.

The aim of this study is to present the research findings on the attitudes of visitors to the Christmas Market in Gdańsk in 2022 towards Christmas illuminations. Gdańsk was chosen as the study location because it is a city with a long tradition of Christmas markets and is one of the largest events of its kind in Europe. Additionally, the location of the market in the historic part of the city allows for the creation of spectacular decorations and Christmas illuminations in a historical atmosphere, imposing restrictions on the organizers due to the cultural and historical character of the area. Such a location of the market in a specific urban space provides

the opportunity to create and disseminate spectacular media images (Smith, McGillivray, 2020) in a Christmas context that includes illuminations.

Another factor determining the choice of Gdańsk is the adoption of the ‘Gdańsk 2030 Plus’ development strategy by the city authorities in September 2022, which includes four strategic goals: a green, inclusive, accessible, and innovative city (Gdańsk 2030 Plus, 2022). The concept of sustainable development serves as a cohesive element in the actions aimed at achieving these goals.

The conducted study fills a research gap in analysing the needs and attitudes of urban residents towards Christmas illuminations in the context of discussions on energy savings in the face of an energy crisis. Furthermore, understanding the behaviours and attitudes of the local community towards limiting Christmas lighting can help shape better urban policies and help cope with the economic, social, and environmental implications of the energy crisis (Parag et al., 2023).

In the first part of the paper, the authors present a literature review on studying participants' attitudes towards various aspects related to event organization. They also discuss reactions to the energy crisis observed in Europe in 2022, placing it in the context of municipal government policies. In the later part of the article, the authors analyse the results of a study conducted in November and December 2022 on attitudes towards Christmas illuminations among participants of the Christmas Market in Gdańsk. The authors developed a regression model that considers the influence of the perceived utility of illuminations, including factors such as the ability to take more interesting photos, the impact of perceived emotions associated with illuminations, the influence of others' opinions (social influence), and awareness of energy-saving illuminations on participants' attitudes towards illuminations. The analyses were conducted using the IBM SPSS package, based on data provided by the Professor Brunon Synak Pomeranian Research Institute and information provided by the International Gdańsk Trade Fairs – the event organizer.

2. Theory

2.1. Study of Participants' Attitudes towards Events

The economic, environmental, and social impact of events on the environment depends to a certain extent on the attitudes of their participants. Attitudes and the resulting behaviours, especially those related to mitigating the negative environmental or social effects of an event, can in turn encourage organizers to take specific actions (Alanzeh et al., 2022; Mueller et al., 2018). Therefore, studying the attitudes of participants in mass events towards various aspects

of these events is a topic of interest for researchers and practitioners (Bagiran, Kurgun, 2016; Wang et al., 2018; Marinova, Fox, 2019).

Zhang, Kim, and Xing (2020) investigated the influence of the consistency between the image of the event in which the participants took part and the host city on their attitude towards the event, manifested in their intention to revisit and recommend the event and city to others. According to their findings, perceiving consistency between the host city and the event had a significantly positive impact on the participants' attitude towards the city and their recommendations regarding that city. However, it did not have a significant effect on their intention to revisit the event or their attitude towards the event itself.

When examining the impact of event organization on sustainable regional development, Alanazeh et al. (2022) found that the awareness of organizing an event in a particular place, community involvement, and consideration of the attributes of the destination, positively influence the residents' attitudes towards the event. Additionally, the involvement of the local community in the event's preparation and their actual participation in the event are key factors in sustainable regional development (Sustainable Regional Development, SRD). To illustrate the differences in shaping SRD between the involved and uninvolved groups in organizing the festival, researchers utilized analysis of variance (ANOVA) methodology.

On the other hand, Mueller et al. (2018) focused on examining the attitudes of participants in outdoor sports events towards the 'Leave No Trace' programme, which aims to promote sustainable behaviour among participants in wild and natural areas. By investigating the attitudes of participants in various types of races towards 18 behaviours aligned with the Leave No Trace (LNT) principles, they utilized Ajzen's Theory of Planned Behavior (TPB). Participants' attitudes varied depending on the type of race they were involved in. Motorcyclists showed the weakest belief in the effectiveness of the LNT principles, and runners exhibited the least compliant attitudes with LNT principles, while cyclists demonstrated the highest compliance.

TPB has also been the basis for research conducted by Santos et al. (2022) on the attitudes of conference participants towards giving conferences a more sustainable dimension. The researchers found that gender and age explained fundamental differences in pro-environmental attitudes. Women and older individuals expressed stronger, positive attitudes towards choosing more sustainable conference venues, catering, conference materials, and accommodation. The weakest attitude was observed regarding the use of more sustainable means of transportation.

The impact of national culture on attitudes towards music festivals and their social significance in Serbia and Hungary was explored by Pavluković, Armenski, and Alcantara-Pilar (2017). The study revealed both positive and negative perceptions of the impact of festivals on the community. The researchers concluded that national culture significantly influences attitudes towards the studied events. Intercultural research was also conducted by Okayasu et al. (2016), examining the influence of cultural differences on the attitudes of Japanese and

American participants in recreational sports events. The findings of this study showed that different attitudes did not depend on variables describing gender and age.

As the above examples demonstrate, studying the attitudes of event participants covers various aspects related to their organization, ranging from attitudes towards the event itself and the host city, to attitudes towards sustainable catering at scientific conferences. Considering the existing literature on attitudes towards different aspects of events, it is difficult to determine definitively which factors are most significant when designing research in this area. Therefore, individual aspects require separate analysis.

2.2. Reactions to the energy crisis

Energy sources and costs are significant issues in urban management in many countries around the world. First, the COVID-19 pandemic presented serious challenges to city managers due to limited urban budgets and shifting priorities (Angelidou et al., 2022). The development of smart cities, including the implementation of smart offices, LED lighting systems, and intelligent traffic management projects, has been delayed or replaced by projects related to security and medical services (Kamruzzaman, 2022).

Subsequently, the invasion of Ukraine by Russia has caused significant challenges, particularly in Europe, in achieving energy policy goals regarding resource access. The need for sustainable, balanced, and equitable energy transitions in the face of the climate and war crisis also presents many dilemmas in urban energy management. According to Kuzemko et al. (2022), considering the observed changes, energy policy faces an energy trilemma: ensuring energy security, sustainable energy development, or energy equality, while aiming to meet societal expectations. In the context of Christmas, a fourth element, which city managers face, can be added to the discussed dilemma – concerning the preservation of holiday traditions associated with additional decorative lighting in cities or the organization of Christmas markets to provide a sense of normalcy to local communities. However, this implies a higher demand for urban electricity.

Meanwhile, Osička and Černoch note that the energy crisis, in the longer term, may present an opportunity for faster decarbonization and reducing Europe's energy vulnerability and dependence by shifting towards renewable energy and changing the European energy paradigm (Osička, Černoch, 2022). They emphasize that this will require coordinated, pan-European actions, including increasing awareness and acceptance of these solutions among the diverse societies in Europe, which do not hold a uniform stance on this issue. This is evidenced by the variation in the share of renewable energy used among European countries (Eurostat, 2023).

Parag et al. (2023) have developed guidelines for studying European reactions to the energy crisis in the years 2022-2023. They found that exceptionally high energy prices are influencing a change in the energy usage system for many households, businesses, and other organizations, including local governments (Parag et al., 2023). Understanding the attitudes and behaviours

of communities towards various manifestations of the current energy crisis can help improve social resilience and better prepare societies for future energy shortages caused by climate change or other factors.

Public lighting in cities, as part of the energy strategy, is perceived by individuals, as noted by Kasseh, Touzani, and Majaty (2023), as a factor indicating the development, attractiveness, and safety of the city. At the same time, for city managers, the challenge remains in developing an energy management strategy that ensures public lighting, which typically represents a significant burden on the urban budget, is as efficient, energy-saving, and conducive to the city's sustainable development goals as possible. To achieve this, cities worldwide are implementing various solutions, particularly related to intelligent energy management systems (Selvaraj et al., 2023) and supporting sustainable development in this area (Quereshi et al., 2021; Li, 2022).

When using measurement abbreviations, there should be space between the number and unit of measurement.

3. Results

3.1. Context

The Christmas Market in Gdańsk is the largest event of its kind in Poland. In its current form, it has been organized for over 20 years. However, the history of this event dates back much further, to the 17th century. In the past, it was not a regular occurrence like it is now but rather an occasional event held in various parts of Gdańsk. The first historical descriptions of the Gdańsk Christmas Market come from the 17th century. Charles Ogier, the secretary of a French envoy, described the Gdańsk market in 1635 as a three-day fair where people of different social classes came to buy Christmas gifts. Descriptions from the 19th and early 20th centuries suggest that during that time, the market was held in one of Gdańsk's most prestigious landmarks, the Artus Court. It was an opportunity for selected entrepreneurs, craftsmen, and traders to showcase their products to a wider audience of visitors. In the 1920s, the market began to resemble its current character. Alongside commercial exhibitors, there were also food stalls and cultural attractions. Visitors could participate in concerts and admire Christmas illuminations (Mielke, 2021).

In 2022, the Christmas Market took place in Gdańsk from November 18th to December 23rd. In the European Best Christmas Market competition, the 2022 edition of the Gdańsk Christmas Market was recognized as the second-best event of its kind in Europe. It is worth noting that the competition included Christmas markets from nearly 100 European cities, and over 374,000 visitors voted for these events. The competition is organized annually by the

European Best Destinations organization, which promotes and supports the best European destinations worldwide. It collaborates with over 300 European tourist offices, including 80 centers for sustainable tourism, and hundreds of thousands of tourists who evaluate the selected destinations.

In 2022, the Gdańsk Christmas Market was visited by approximately 700,000 guests. Among them were residents of Gdańsk and the Gdańsk-Gdynia-Sopot metropolitan area, as well as people from other parts of Poland and abroad, mainly from the Scandinavian countries and Germany.

Given the longstanding tradition, the organizer – the Gdańsk International Fair and the City of Gdańsk as the host – did not cancel the next edition of this event. At the same time, the organizers sought solutions to maintain the festive atmosphere of the event provided by the illuminations while reducing the energy consumption. To achieve this, energy-efficient lighting based on eco-LED technology was installed, which requires nine times less electricity than traditional bulbs. The ChM organizers included information about reducing energy consumption and the better cost-effectiveness of the implemented solutions in their media materials. Local and regional media also highlighted this aspect when reporting on the illuminations. The *trójmiasto.pl* portal addressed the topic of Christmas illuminations at the ChM in fifteen articles published during the event. Five of them included information about energy efficiency and the costs of the festive lighting. Similarly, the *gdansk.pl* portal covered the topic of Christmas lighting at the ChM in eleven texts, including three that referred to its costs and energy efficiency.

3.2. Methods

The target group in the empirical study consisted of participants of the Christmas Market (JB). The study was conducted using the Computer Assisted Personal Interviewing (CAPI) method on different days and times during the market period. The constructs used in the survey were adapted from previous research. They included elements from the Theory of Planned Behavior (TPB, Ajzen, 1991), which had been previously adapted for studies related to individuals' attitudes in various tourism domains (Alonso et al., 2015; Elnadi, Gheith, 2022), as well as the Technology Acceptance Model (TAM, Davis, 1989).

According to the TPB, attitude is understood as a positive or negative evaluation of an action taken, taking into account the social influence associated with the perceived pressure from the individual's environment to conform to social norms. The Technology Acceptance Model, on the other hand, considers the perceived usefulness and other factors that may be relevant in studying attitudes towards a specific issue (Venkatesh et al., 2003; Almunawar et al., 2021). Therefore, the study included both emotions evoked by the illuminations and awareness of their energy efficiency as factors contributing to the formation of the attitudes towards the investigated phenomenon (Venkatesh et al., 2003).

Table 1.
Constructs and measurement items

Constructs	No.	Items
Attitude	1	Christmas illuminations during this year's Christmas Market is a good idea.
	2	I like the idea of this year's Christmas Market illuminations.
	3	Installing Christmas illuminations at the Christmas Market is beneficial.
Perceived usefulness	4	I believe that Christmas illuminations are necessary.
	5	Taking pictures of Christmas illuminations makes it easier for me to capture and document memories.
	6	Christmas illuminations make my photos more interesting.
Perceived emotions	7	The Christmas atmosphere is enhanced by the illuminations. for me.
	8	Watching Christmas illuminations is enjoyable.
	9	Watching Christmas illuminations is engaging.
Awareness of illumination's energy efficiency	10	If it were up to me, I wouldn't install Christmas illuminations.
	11	This year's Christmas illuminations consume very little energy.
	12	In my opinion, the organizer made an effort to ensure that the Christmas illuminations were energy-efficient.
Perceived social norms	13	My family believes that we should see this year's Christmas illuminations.
	14	My friends think that we should see this year's Christmas illuminations.
	15	People whose opinions I value think that we should see this year's Christmas illuminations.

Source: prepared by the authors

A convenient, non-random sampling technique was used to collect the data, which allowed obtaining information from respondents based on their availability and willingness to participate in the study. A total of 204 completed questionnaires filled with responses from Christmas Market participants were subjected to analysis.

3.3. Respondents

The table below presents the characteristics of the respondents by gender, age, place of arrival, education and declarations of having children.

Table 2.
Overview of demographic characteristics of study participants (n = 204)

Gender	%
Female	62.75
Male	37.25
Age	
18-24	19.61
25-34	36.76
35-44	17.65
45-54	45.54
55-64	6.86
65+	6.86
Where did the respondent come from?	
from Gdańsk	29.35
from Gdynia	21.39
from Sopot	12.44
from outside the Tri-City, Pomeranian Voivodeship	26.37
from outside the Pomeranian Voivodeship, other parts of Poland	10.45
Abroad	1.45

Cont. table 2.

Education	
elementary	1.96
vocational	18.14
secondary	33.82
post-secondary	9.8
higher	36.27
Number of children	
I don't have	43
I have 1 child	24
I have 2 children	20
I have 3 children	11
I have 4 or more children	2

Source: prepared by the authors.

On average, respondents who visited the market in a group consisting of family members or friends were accompanied by 3 to 6 people.

3.4. Analysis

The participants provided responses on a 7-point Likert scale (ranging from strongly disagree to strongly agree), which allows for the application of the selected analytical approach in this case (Harpe, 2015; Wadgave, Khairnar, 2016). This means that, for example, a rating of 5.46 indicates a positive attitude towards the illuminations (the average response value between 'somewhat agree' and 'agree'). The results are presented in Table 3.

Table 3.

Respondents' response values for the measured items (n = 204)

Constructs	Items	Median	Mean	STD
Attitude	Christmas illuminations during this year's Christmas Market is a good idea.	6	5.46	1.00
	I like the idea of this year's Christmas Market illuminations.	6		
	Installing Christmas illuminations at the Christmas Market is beneficial.	5		
Perceived usefulness	I believe that Christmas illuminations are necessary.	6	5.51	1.20
	Taking pictures of Christmas illuminations makes it easier for me to capture and document memories.	6		
	Christmas illuminations make my photos more interesting.	6		
Perceived emotions	The Christmas atmosphere is enhanced by the illuminations. for me.	6	5.78	0.97
	Watching Christmas illuminations is enjoyable.	6		
	Watching Christmas illuminations is engaging.	6		
Awareness of illumination's energy efficiency	If it were up to me, I wouldn't install Christmas illuminations.	4	4.75	1.10
	This year's Christmas illuminations consume very little energy.	5		
	In my opinion, the organizer made an effort to ensure that the Christmas illuminations were energy efficient.	2		
Perceived social norms	My family believes that we should see this year's Christmas illuminations.	5	5.04	1.11
	My friends think that we should see this year's Christmas illuminations.	5		
	People whose opinions I value think that we should see this year's Christmas illuminations.	5		

Source: prepared by the authors.

Summarizing the collected results, it is worth noting that the respondents perceive the evaluated illuminations as useful and evoking positive emotions. They had difficulty in relating to the energy consumption of the illuminations, as indicated by the value of 4 – ‘hard to say’. Their ratings indicate social support for the evaluated installations, with a rating of 5 – ‘somewhat agree’ for all the measured constructs. Although there are no comparative data from the period preceding the energy crisis, which was a topic of media agenda in the second half of 2022, the collected results do not indicate negative attitudes towards the solutions adopted by Gdańsk.

Considering the assumptions of TPB and TAM, a model of attitude towards the Christmas illuminations at the Christmas Fair was developed, as presented in Table 4. The model explains 40% of the variability in attitudes towards the illuminations (R -squared = 0.398).

Table 4.
Coefficients influencing the attitude towards the illuminations

Model	Non-standardized coefficients		Standardized coefficients	p value
	B	Standard error	Beta	
(Constant)	1.543	0.383		0.000
Perceived usefulness	0.243	0.067	0.293	0.000
Perceived emotions	0.210	0.080	0.204	0.010
Awareness of illumination's energy efficiency	0.208	0.057	0.229	0.000
Perceived social norms	0.076	0.052	0.085	0.147

Source: prepared by the authors.

The factor that most strongly shapes the positive attitudes of the respondents is the perceived usefulness of lighting ($\beta = 0.29$, $p < .001$). Participants who believe that illuminations are necessary and contribute to the ability to document memories and take more interesting photos demonstrate a more positive attitude. The attitude is also influenced by the belief in the energy efficiency of the evaluated illuminations ($\beta = 0.21$, $p < .001$). The more convinced the participants are that the organizers made efforts to provide lighting that consumes less energy, the more positively they perceive it. The attitude becomes more positive with an increasing belief that the illuminations contribute to the sense of holiday spirit and that viewing them is enjoyable, engaging, and evokes positive emotions ($\beta = 0.20$, $p < .010$). However, the social influence was found to be statistically insignificant.

To examine which sources of information are most strongly associated with awareness of the energy efficiency of the illuminations installed at ChM, the relationship between the opinion on the energy efficiency of the illuminations and selected sources publishing information about ChM was analysed. The dependency was assessed using the Spearman's rho correlation coefficient.¹ The correlation coefficients for each source of information about ChM and awareness of the energy efficiency of the illuminations are presented in Table 5.

¹ The Spearman's rho correlation coefficient is a nonparametric equivalent of Pearson's correlation and also takes values ranging from -1 to 1.

Table 5.

Relationship between the use of sources of information about ChM and awareness of the energy efficiency of the illuminations

Items		Awareness of illumination's energy efficiency	
The Spearman's rho	Awareness of illumination's energy efficiency	Correlation coefficient	--
		p value	
		N	204
	I actively use Facebook.	Correlation coefficient	.221**
		p value	0.002
		N	204
	I often read Dziennik Bałtycki.	Correlation coefficient	0.127
		p value	0.071
		N	204
	I often read the Tricity edition of Gazeta Wyborcza.	Correlation coefficient	0.111
		p value	0.115
		N	204
	I often use the trójmiasto.pl portal.	Correlation coefficient	.155*
		p value	0.026
		N	204
	I often listen to Radio ESKA.	Correlation coefficient	0.080
		p value	0.256
		N	204
I often visit the gdańsk.pl website.	Correlation coefficient	.206**	
	p value	0.003	
	N	204	
I visit the website of the Christmas Market regularly.	Correlation coefficient	-0.001	
	p value	0.992	
	N	204	

Source: prepared by the authors.

Only correlations with active use of the Facebook portal, use of the trójmiasto.pl portal, and the gdańsk.pl website were found to be statistically significant in terms of awareness of the energy efficiency of the Christmas illuminations installed at ChM. However, awareness of the energy efficiency of illuminations is not associated with the use of other local sources of information, including traditional media such as newspapers and radio, as well as the ChM website run by the event organizer

4. Discussion

Christmas illuminations play an important role in shaping the atmosphere of Christmas celebrations. With the ongoing climate change, not everyone can rely on snowy holidays and Christmas trees. Therefore, Christmas lights and other characteristic decorative elements increasingly create the festive ambiance (Prideaux, Glover, 2015). As noted by Prideaux and Glover, researchers in the field of tourism during the holiday season have observed that tourists expect the places they visit to reflect this specific time of the year, regardless of the weather or

purpose of their travel. Therefore, the elimination of Christmas markets or holiday illuminations does not seem like a favourable solution. On the other hand, there is growing pressure on local authorities to reduce energy consumption and costs. However, it appears that these two trends can be reconciled. As the study reveals, the Christmas illuminations are perceived as necessary (useful) by the respondents. They evoke a range of positive emotions and allow for the documentation of memories. People should not be deprived of these experiences in the name of cost reduction or energy consumption, especially considering that there are still many other areas where savings can be sought. As noted by Castéran and Roederer, Christmas illuminations are an essential element that shapes the Christmas atmosphere, impacting not only the appearance of urban spaces but also the perception of the event's authenticity, such as the Christmas market (Castéran, Roederer, 2013).

Giordano, on the other hand, observes that the function of urban lighting has evolved over the years. The traditional role of light in cities, associated with ensuring the safety of the population, has been complemented by aesthetic functions aimed at beautifying the city. Designing lighting for aesthetic purposes that supports tourism development is becoming an increasingly important element of planning in tourist cities (Giordano, 2018), especially considering limited urban budgets, climate change, and the current energy crisis. Research by Alexander, Teller, and Wood (2020) confirms that the perception of the connection between the material environment and the experience influences the city brand. Therefore, Christmas markets held in city centres serve to reinforce the traditional role of the city centre as an important place for social, commercial, and cultural activities. Thus, presenting appropriate lighting in this area supports the shaping of visitors' experiences. Taking into account the findings of Kasseh et al. (2023) regarding the perception of lighting in cities as a factor indicating their development, attractiveness, and safety, it is evident that the local government of a tourist city like Gdańsk places particular importance on the quality of lighting, including Christmas illuminations. In the context of the energy crisis, they also strive to ensure energy-efficient solutions in their installation. Perhaps, following the principles outlined by Parag et al. (2023), the introduction of energy-saving measures in the installation of Christmas illuminations will have a positive effect amidst the energy crisis.

5. Conclusions

In conclusion, it is appropriate to maintain the tradition of Christmas markets and the festive lighting of their spaces and cities, while also utilizing innovations that reduce energy consumption. This approach can have educational value and lead to a ripple effect of imitation. It is important not only to implement energy-saving solutions but also to effectively

communicate them. This can reduce the user's sense of guilt and, as seen from the research results, influence the formation of a positive attitude. However, from the analysis of the collected material, it can be concluded that the affirmation of energy efficiency in the implemented solutions must come from sources other than just the event's website managed by the organizer. The opinions of others, with whom the respondents interact and identify, also proved to be influential in shaping their attitudes.

6. Limitations

The study can serve as a starting point for further in-depth analyses related to the significance of actions undertaken by organizations and local governments in promoting an ecological mindset among residents and tourists. The research was conducted in specific Polish conditions, where pro-environmental and energy-saving attitudes are still being shaped. Perhaps in other cultural contexts, such as Scandinavian communities, the reduction of energy consumption and the implementation of energy-saving solutions in events organized by local organizations and governments hold greater importance for the community compared to the Polish context. It is undoubtedly important to also consider the issue of media usage and the development of appropriate messages that support the cultivation of pro-environmental attitudes among residents and tourists. Furthermore, the applied research methodology, especially the non-random sampling, limits the generalization of results and drawing conclusions about larger populations.

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