The utility of media-delivered information for Generation Z travelers from Poland in the Covid-19 pandemic

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Abstract

Motivation: Information and knowledge are economic goods that sustain economic development, including the tourism industry, today. In the past, the tourism sector was affected by various crises, but none of them was as extensive and impacted tourism on a global scale as it has happened now — during the Covid-19 pandemic. Generation Z, which is a cohort of extremely active travelers, mostly rely on digitally-delivered information. New media like the Internet, including social media, enable tourism entities to reach not only local, but also global markets. However, in the studies published so far, social media and the Internet have usually been analyzed as one category, which in the era of changing technologies and the new emerging behaviors of young tourists seems insufficient. Therefore, there is a need to verify the current state of research and determine the new media utility on the tourism market.

Aim: The study aims to investigate the capability of new media to meet the information needs of potential Gen Z tourists during the pandemic and to identify the characteristics of useful media information

Results: The study involved a desk research and a diagnostic survey method, including the online survey technique. The collected material was analyzed qualitatively and quantitatively. 374 responses were received to the questionnaire. The study was conducted in October 2020. Additionally, an observation, carried out in thematic groups in social media, was used as a complementary technique. The conducted research made it possible to verify the utility of online sources of information used by Gen Z respondents during the pandemic. The study determined the relationships between Gen Z travel frequency, average daily time spent in front of the computer, the amount of tourism expenditure and the utility of new media. The main contribution of this study is the identification of the features of useful media-delivered information about tourism products and services as perceived by Gen Z representatives, which contributes to filling the existing research gap.

Keywords: information; new media; utility; tourism market; Generation Z
JEL: O3; Z3

1. Introduction

Tourism is one of the economic sectors which has been most affected by the Covid-19 pandemic. However, despite the epidemic threat, Poles quite actively traveled for leisure purposes in the 2020 summer season. During this period, the credibility of the media and access to information needed for planning, booking and taking a trip became even more important. Young people, classified as Generation Z, are the most active group of travelers. It is also a cohort showing different preferences regarding media sources of information compared to other generations. The biggest difference between Generation Z and the previous generations is the fact that for the youngest ones, the Internet, including social media, is an everyday reality. Also, they do not care about the stability of employment, but rather about escaping the routine (Hysa, 2016, p. 387). This generation of digital natives is naturally characterized by the highest competences when it comes to using the Internet and mobile devices.

The availability and use of media sources of information in the knowledge-based economy (Jaska et al., 2016, pp. 448–460) and the information society (Jaska, 2015, pp. 145–152) were explored by the authors in their earlier research. The use of new information and communication technologies was analyzed in the context of tourism (Balińska, 2015; Balińska et al., 2019) and in households across Poland, including the rural areas (Jaska & Werenowska, 2018, pp. 115–122). However, no analyzes of the utility of media-delivered information have been carried out, and due to the growing importance of new media during the pandemic, we have decided to address this issue.

In order to define the utility of media-delivered information, it is necessary to answer the question whether it provides content satisfying the user's needs, often regarding taking a decision. Therefore, we select information that we ex-

pect to meet our information needs best. Information delivered through a specific medium is useful if its consumption satisfies the user's information needs. In the case of media-delivered information, the credibility of the medium is of particular importance, as it then becomes the source of first choice and maximum utility. The importance of information is evidenced by the fact that at the level of scientific research it is increasingly often analyzed in the context of the information economics, less often with regard to the utility theory while in economic practice it is perceived as a tradable commodity.

The main aim of this research was to investigate the ability of new media to meet the information needs of potential travelers from Generation Z during the pandemic. The detailed objectives included: defining the features of useful media-delivered information, assessing the credibility of media providing information about tourism products, recognizing the relationships between content categories and media credibility and such variables as the declared tourism expenditure, time spent browsing websites and the frequency of travels.

The study involved the method of a desk research and a diagnostic survey, including the computer assisted web interviewing (CAWI) technique. Purposive sampling and the chosen method of reaching the respondents entails the difficulty of ensuring a proportional share of respondents with specific characteristics, e.g. gender, which was also the case in the current study. The research sample included 374 respondents from Generation Z. The survey was conducted in October 2020. The collected material was analyzed qualitatively and quantitatively, with the use of basic measures of descriptive statistics.

The research began with the literature review. Then, the results of own empirical research were analyzed and confronted with selected studies by other authors.

2. Information utility: theoretical perspective

One of the precursors of information economics is Stigler (1961, pp. 213–225), who focused on the role of information in determining the market price, considering information a valuable resource in the decision-making process. When looking for a product of the highest possible quality, we are also looking for information about the quality of the good, and this is as important as looking for the best price offer and is of particular importance in the case of tourism products that consist of both tangible and intangible components, so measuring the level of their quality is a very difficult task (Albayrak et al., 2020; Habibi & Rasoolimanesh, 2020; Zhang et al., 2020, pp. 279–284). A useful good is undoubtedly a good of high value, and its selection is subject to the rules and principles of the theory of rationality, although the practice of maximizing utility is not every person's feature and it varies in intensity. This is due to, inter alia, incomplete information, which affects the possibility of determining the potential consequences of future actions (Nogal, 2014, pp. 154–162). Dolan & Courville (2009, pp. 2–3) distinguish between the objective and subjective nature

of value, which is particularly evident in the case of travel and tourism. Apart from the real economic value, they focus on the value of the good as perceived by the consumer, i.e. the value the consumer notices and understands. Thus, in the case of such good as media-delivered information, it should be remembered that it will have a different value for individual recipients and audiences. And the level of reception will be influenced by the current economic, political and epidemic situation (Chemli et al., 2020; Garcia-Milon et al., 2020; Xiang et al., 2020).

The utility of information is the main source of its value in the decision-making process. One should agree with Brichler & Betler (2007, pp. 32–33) that information has a value because it increases the probability of assessing the effects of taken decisions and thus enables more optimal decision-making. According to Olender-Skorek & Wydro (2007, pp. 72–84), the subjective value of information plays a crucial role in consumer decisions. The value assigned to a piece of information by an individual translates into the size of media audience alongside audience growing strategies used by the media themselves. That is why, the quality and content of information are so important — information is an economic good, a basic resource and a basic economic category (Dziekański, 2012, pp. 387–403).

There is an assumption in economics that people consciously and rationally shape their economic situation by making decisions that maximize their satisfaction. This assumption underlies the utility theory and the concept of homo oeconomicus. From the perspective of economics, human life is about needs, decisions and, consequently, concrete action. Von Mises (2012, pp. 2–3) stated that it is dissatisfaction with the current state of affairs that motivates people to act and consequently improve their situation. Satisfying a given need requires a person to recognize the problem, define the goal, examine decision options, predict the consequences and choose the optimal variant (Samuelson & Marks, 2009, p. 25), which will ensure the highest possible level of satisfaction at a given moment and within specific resource constraints. Useful information, including media-delivered information, is essential at each of these stages. Utility is an important concept in economics, because it explains why someone chose a given combination of tourism products and services providing a certain level of satisfaction. The utility function enables the determining of relationships between various components of a tourism product and the utility achieved as a result of its consumption (Krugman & Wells, 2012). , p. 446). Similar dependencies apply to information goods obtained from various media sources, because it may be the relationship between the available information (a basket of media sources of information) and the utility generated by these information sources (basket). Mankiw & Taylor (2009, p. 622) noted another regularity in consumer behavior, namely striving to maximize utility, as opposed to managers who maximize profit.

Forlicz (2008, pp. 13–14), by defining information as an economic good and with regard to its utility, points to the fact that adding information

to the knowledge resources of an individual does not wear it, but only decreases its utility due to the aging process. Therefore, in the authors' opinion, it becomes justified to consider the total utility and marginal utility of media-delivered information, including the law of diminishing marginal utility (Gossen's first law). On the one hand, in the case of Generation Z, the total utility of information disseminated via traditional media is clearly decreasing. A further increase in consumption of this type of good means that its marginal utility curve may take negative values, which is synonymous to aversion to the consumed good. In this case, it would be aversion to content about tourism products delivered by old media in the epidemic. On the other hand, it is legitimate to say that, the total utility of new media, as a source of information, continues to increase for the representatives of Generation Z, because the delivered content meets their needs to a greater extent and is often related to making decisions. In the time of dynamic epidemic changes and the resulting economic and social constraints, the new media utility on the tourism market is particularly high.

3. Methods

It was assumed that the Internet, including social media, is the most useful medium for tourists from Generation Z, and therefore the categories of content and medium were analyzed in correlation to the declared tourism expenditure, time spent browsing websites and travel frequency. The following detailed hypotheses were adopted:
- H1. For the representatives of the Generation Z, the most useful information obtained from the Internet sources concerns simple tourist products such as clothing, footwear or sports equipment.
- H2. The most useful Internet media are social networking sites and websites of entities operating in the tourism market.
- H3. The higher tourism expenditure, the more useful the email contact with the tour operator and online check-in are.
- H4. The most reliable social medium is Facebook. Reliable media is the media of first choice also most useful in providing information about tourism products.
- H5. The main feature of useful and effective travel advertising during the pandemic is the proper ad placement.

The study involved a desk research method and a diagnostic survey, including the Internet based survey technique (Computer Assisted Web Interview, CAWI). It was prepared using the Google platform, and the link to the survey was made available through various Internet channels, including social media. This method of reaching the respondents was both safe in the time of the epidemic and convenient, especially for respondents from Generation Z. The questionnaire included filtering, alternative, close-ended single and multiple choice questions, as well as questions with a five- and seven-point Likert scale. The actual research was preceded by a pilot study, which allowed for the improve-

ment of the research tool. The actual study was conducted in October 2020. The responses of 374 people born after 1995, classified as Generation Z, were received. The collected material was subject to qualitative and quantitative analysis. The basic measures of descriptive statistics were used, i.e. mean (M), median (Me), mode (Mo), correlation coefficient (r) and the Mann–Whitney test. A complementary technique was the observation carried out in thematic groups in social media. The importance of this technique is emphasized by, (inter alia), Wood et al. (2020) and da Mota & Pickering (2020).

Most of the respondents were women — 70.6%. The overrepresentation of women is typical of surveys and, consequently, the search for relationships with regard to gender was abandoned. Due to the fact that it was Generation Z sample, the majority of respondents were students and pupils (80%). The rest included white-collar workers (16%) and blue-collar workers (2.9%). The place of residence of the respondents varied, with the largest number of people living in cities with more than 500,000 inhabitants (40.9%). rural areas (24.6%), cities up to 50,000 inhabitants (16%), cities 50,000–100,000 inhabitants (8.8%) and cities of 100,000–500,000 inhabitants (9.6%). The respondents' travel frequency was quite high. 66% of the respondents declared taking trips several times a year. 29.2% traveled once a year, and only 4.8% once in a few years. During the pandemic 21.4% of the respondents gave up travels for leisure purposes. Most of the respondents, 62%, participated in domestic trips, and the rest — 16.6% — took foreign trips. The level of tourism expenditure for a 7-day stay of one person at a domestic destination acceptable to the respondents also varied. Most people could spend from PLN 1,001 to 1,500 (41.4%). Every fourth respondent (25.4%) indicated the range from PLN 1,501 to 2,000, 22.2% declared expenditure not exceeding PLN 1,000, and 11% were ready to spend over PLN 2,000. The above-mentioned variables were treated as differentiating variables in the assessment of media reliability and utility.

4. Results

Firstly, the attempt was made to verify what media sources of information the respondents turn to when searching for the optimal tourism product. The respondents could select both traditional and new media. The vast majority declared that they "always" use the Internet (62%), and 36.6% use the Internet "sometimes". Social media also had a high share, i.e. 25.7% of the respondents use it "always" and 63.6% — "sometimes". Traditional sources of information were mentioned marginally, which prompted the authors to focus on online sources of information in further analysis.

In the case of useful media-delivered information about a tourism product, one must not forget about the utility of a specific medium understood as its capability to satisfy the information needs of a potential recipient, including travelers. Media influence the attitudes and behavior of the audience in a variety of ways, but it is worth recalling the primary effects that appear when the mass

media proposal is noticed and the decision is made to follow it. These effects are determined by the previous experience in the field of media communication and they include the identification of the media of first choice in which we place trust and perceive as credible. We turn to them when we look for information, also about tourism products, and they act as media of higher utility for the recipient (Table 1).

The use of individual sources of information was assessed by the respondents primarily in terms of satisfaction, and the sources of information which received the highest ratings were social networking sites and websites of tourism enterprises. Interesting facts were most often found on travel blogs and vlogs. These sources, similarly to websites of cities and regions, were also used to get practical knowledge. The importance of the analyzed sources as an inspiration for choosing a tourist destination varied, with the largest number of people indicating social media and friends' profiles in these media.

To further explore the adopted research area, it was verified whether the time spent on browsing websites for pleasure is related to the utility of individual Internet sources of information (Table 2).

Regardless of their daily use of the Internet, the respondents found social networking sites and websites of tourism enterprises most useful. A slight variation was observed between the responses of the respondents from individual groups in terms of finding interesting facts (people who spent the shortest time browsing websites indicated travel portals, those who spent the longest time — travel blogs and others — travel vlogs). The choice of the category of new media also slightly varied in terms of acquiring practical information (those who spent the shortest time browsing websites indicated travel blogs, most time — vlogs, and the remaining group — websites of cities and regions). People who declared the longest computer screen time indicated different sources of information than other groups in the context of searching for inspiration and reliable content. The sources which were the least frequently indicated by respondents from all groups included profiles of tourism enterprises in social media, online brochures of tour operators and personalized emails from tourism enterprises.

Next, we verified the relationship between the utility of new media and the declared tourism expenditure (the amount allocated for a 7-day holiday per person at a domestic destination was adopted as a measure) (Table 3).

People declaring the highest level of acceptable tourism expenditure had different opinions on the utility of a given medium from the others. Respondents indicating expenses of up to PLN 1,000 and PLN 1,001–1,500 used social networking sites most willingly and got practical information from travel vlogs. The respondents declaring the highest travel expenditure generally preferred profiles of their friends in social media, and the websites of cities and regions as sources of practical information. The respondents declaring travel expenses of PLN 1,501–2,000 liked to use the websites of tour operators and other tourism organizations and searched for practical information on travel blogs. Respondents declaring travel expenses up to PLN 1,000 and PLN 1,501–2,000 found

interesting facts on travel portals, those declaring PLN 1,001–1,500 — on travel blogs and those spending the most — on vlogs. Respondents who spent PLN 1,001–2,000 considered the websites of cities and regions the most reliable, travelers spending the least — websites of tourism enterprises, and the biggest spenders value travel portals, blogs and vlogs equally. The respondents looking for travel inspiration had the most diverse preferences.

The study also focused on determining the content based features of useful Internet-delivered information. The content categories were based on the components of a tourism product (Chart 1).

The most useful Internet-delivered content category is online shopping for clothes, footwear and sports equipment. The lowest rating was given to contacting tour operators by email and online check-in, which corresponds to the respondents' travel frequency. The relationship between the types of Internet-delivered content and the tourism expenditure, time spent on browsing websites and the frequency of travels was also verified (Table 4).

There was a weak correlation between the amount of tourism expenditure and the utility of e-mail contact with a tour operator and on-line check-in, i.e. the higher the amount allocated for the travel, the higher this type of content was rated. The research also shows that the more time the respondents spent on browsing websites, the more they valued the content related to on-line shopping, booking a holiday and information on tourist services delivered by search engines, but this is a weak correlation. A weak correlation was also noted between almost all categories of content (except for online shopping) and the frequency of travels for leisure purposes, i.e. the more often the respondents traveled, the higher they rated individual categories of information content. Interestingly, no correlation was found between the respondents' place of residence and the utility of individual content categories.

Taking into consideration the research objectives, it was important to verify which sources of information the respondents found reliable and whether there is a relationship between the source credibility and other variables like the amount of time spent browsing websites, the declared tourism expenditure and travel frequency (Table 5). For comparison, this list includes both old and new media.

The respondents considered Internet websites, online trade publications and analogue trade publications to be the most reliable media, while generalist TV channels and daily press were rated the least trustworthy. The correlation coefficient showed an average relationship between the time spent on browsing websites and the credibility of the radio, i.e. the more time the respondents spent on the Internet, the less credible the radio seemed to them. There was also a weak relationship between the time spent browsing websites and the credibility of generalist TV channels, trade magazines and websites. It was also shown that the credibility of the media (apart from websites and social media) is weakly correlated with the acceptable amount of tourism expenditure. However, there was no correlation between the travel frequency or the place of residence

of the respondents and the assessment of the credibility of individual sources of information. The Mann–Whitney test revealed the relationships between gender and the assessment of credibility of the media listed in Table 5. Women rated the reliability of the following media higher than men: thematic television channels ($Z=2.717$; $p=0.0065$), universal television channels ($Z=3.749$; $p=0.0002$) and daily press ($Z=2.405$; $p=0.016$). No difference was revealed with regard to other media.

Additionally, it was verified which social networking sites are perceived by the respondents as a reliable source of information about tourism products (Chart 2).

The most highly-rated social media included: Facebook, Instagram and You-Tube, i.e. the portals where, in addition to information shared by the authors of posts, videos and reports, users have constant contact with various types of advertisements.

Interestingly, the respondents rated the utility of advertisements for tourism products quite high. Almost half (47.1%) believed that there was a lot of truth in them. Only 13.9% considered that they were untrue and inadequate to the quality of the service or product offered, and 3.7%, considered advertising content to be very reliable. More than one in three respondents (35.3%) had no opinion on this subject. Next, it was verified what characteristics a useful advertisement of a tourism product during a pandemic should have (Chart 3).

The choice of the appropriate medium and current information on the pandemic received the highest rates. No statistically significant correlation was found between the rating of individual characteristics of a travel advert displayed during the pandemic and the time spent on browsing websites ($0.0137>r>-0.0726$) and place of residence ($0.0458>r>-0.0567$). A weak correlation occurred in relation to travel frequency, i.e. people who traveled more often valued the celebrity endorsement lower ($r=-0.1460$) and the choice of a proper medium higher ($r=0.1718$). A weak correlation was also revealed between the rating of the richness of colors and tourism expenditure, i.e. the higher the level of tourism expenditure, the lower the rank of this feature ($r=-0.1163$).

5. Discussion

There are many studies on the use of new media in promotional activities (Kachniewska, 2015, pp. 35–48) and in the management of tourist flows, including tourists' decision-making processes; however few relate to the utility of information. The issues addressed by the authors are explored by scientists from different countries in various configurations. The leading role of the Internet as a key source of information used by young people for travel arrangements has been highlighted in studies by Bizirgianni & Dionysopoulou (2013, pp. 652–660), which showed that 89% of the respondents chose the Internet as the most important source of information needed for travel planning. Their research is consistent with the findings of the authors of this study regarding sharing con-

tent on the Internet and social media by respondents (Chart 1). The research of Bizirgianni & Dionysopoulou (2013) shows that 42% of the respondents visit their profile while traveling to communicate and share their experiences with friends, and as many as 74% share photos on their profile, etc.

Also the research of Katsoni et al. (2013, pp. 329–352) shows that the main source of travel information, apart from the recommendations of friends and family, is the Internet. These researchers saw the need to break this source into more homogeneous categories, including social media, which the authors of this article did in their study. Social media is of particular interest to researchers. Research by Sakshi et al. (2020, 101438) is consistent with the findings of the authors of this article as regards the importance of social networking sites in travel planning. Their research shows that non-travel social networking sites such as Facebook and YouTube generate a much higher share of purchasing decisions for travel products than others. Although in the studies by Sakhi et al. the order of the most used social media is different than in the authors' research (YouTube — 31.2%, Facebook — 21.5%, browsers — 19.1%, Instagram — 17.4%, Twitter — 6.5% and others — 4.3%), but this rating may result from the design of the research tool. The rank of social media in the search and purchase of a tourist product was also investigated by Werenowska & Rzepka (2020) (TripAdvisor — 55.3%, Facebook — 53.5%, YouTube — 49%, Instagram — 40.8%) and Schiopu et al. (2016, pp. 829–846), (Facebook — 98%, Instagram — 53%), which results from the selection of a research sample similar in profile.

The authors' research showed that the satisfaction from using online sources of information is the most highly-rated parameter regardless of the source. Research by di Pietro & Pantano (2013, pp. 4–19) confirms that this is has a market value, because the perceived pleasure not only affects the intensification of electronic communication but also stimulates the intention to buy.

The popularity of social media also stems from the fact that they function as applications on mobile devices. According to Aliperti & Cruz (2020, pp. 193–210) travelers use applications for several reasons, including security. International travelers may need information on potential threats at destination, like natural disasters, diseases or terrorist attacks.

The results of the authors' research are also consistent with the study by Narangajavana et al. (2017, pp. 60–70), which shows that the main motives for using user-generated content include: looking for inspiration to travel, picking a destination and confirming of the rightness of the already taken decision about a travel destination. Interestingly, respondents in Zillinger's (2020 pp. 510–515) research showed low confidence in social media, but his sample varied in age. On the other hand, the high trust of young people in the credibility of the information delivered by social media was also confirmed in the research by Berhanu & Raj (2020, e03439), which indicates that social media is more reliable compared to traditional media, such as newspapers, television, radio, etc., and the information they deliver is up-to-date (although they pointed out

that some entries may be false or biased and may result from dishonest practices of entrepreneurs). The topicality of information delivered this way was also emphasized by Zillinger (2020 pp. 510–515). Social media enable customers to contact the customer service more easily, as pointed out by Minazzi (2020, pp. 1–27). However, in the authors' research, this functionality of social networking sites gained the lowest rank in the respondents' assessment (Chart 1).

The authors' research showed that the frequency of travel was positively correlated with the assessment of content obtained from various Internet sources. This finding is consistent with the considerations of Eletxigerra et al (2021). In their opinion, experienced tourists co-create their experiences more intensively before the trip compared to those who have less knowledge and skills in the field of travel. Therefore, it should be in the interest of companies not to hire new employees, but rather increase travelers' knowledge, develop consumers' skills and boost their interest in traveling. Skulme & Praude (2016, pp. 131–142) also discussed this topic. In turn, studies by Eletxigerra et al. (2021) clearly confirmed that specialist knowledge enables travelers to organize their travel more actively and search for information in the process of making arrangements, as well as stimulates mental time travel (imagining possible travel scenarios).

On the other hand, the study by Bartosik-Purgat (2018, pp. 123–142) shows that in Poland and the Czech Republic, young consumers make purchase choices following specific thought patterns, reinforced, for example, in the mass media. Delińska (2018) also describes how social media support consumers' decision-making processes regarding purchasing tourism services. However, she does not categorize the content with regard to its utility function as perceived by the participants of the tourism market.

6. Conclusion

The conducted research made it possible to verify the utility of online sources of information used by Generation Z respondents searching for tourism products in the period of the pandemic and to define the features of useful media-delivered information.

The main assumption that the representatives of Generation Z use the Internet "always" and "sometimes" (with a considerable share of social media), while traditional media play a marginal role was positively verified. The following detailed hypotheses were confirmed:

1. For the representatives of Generation Z, the most useful information obtained from the Internet sources concerns simple tourist products such as clothing, footwear or sports equipment. The lowest rating was given to online contacts with tour operators and online check-in, which probably corresponded to the nature of the respondents' travel choices during the pandemic.
2. The most useful Internet media are social networking sites and websites of entities operating in the tourism market,

3. The higher the amount of tourism expenditure, the more useful the email contact with a tour operator and online check-in, (although this relationship was weak).
4. Facebook is the most reliable social medium. Reliable media are the media of first choice and are most useful in obtaining information about tourism products.
5. Choosing the right medium and providing up-to-date information on the pandemic are the main features of useful and effective travel advertising.

The main contribution of the article is to define the features of useful media-delivered information about tourism products and useful new media in the period of the pandemic, although the authors are aware of the limitations of the presented research. One of them is the relatively small size of sample and its narrowing down to Polish Gen Z users of Internet sources of information. Diversifying the research sample would probably result in the observation of stronger correlations between the analyzed data. The results presented above hold qualitative, exploratory and explanatory value. They have a practical application as a guide for tourism entrepreneurs in terms of shaping the information policy responding to the consumers' needs.

The research should be continued in the coming years and should focus on the changes in the utility of media-delivered information and online information sources as well as include representatives of other age groups.

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Acknowledgements

Appendix

Table 1.
Utility of Internet sources of information about tourism products as rated by the respondents (%)

Internet sources of information	Response code*					
	A	B	C	D	E	F
websites of tour operators and other tourism organizations	41.7	6.7	11.2	11.0	9.9	19.5
travel portals	31.0	21.7	14.7	7.8	7.5	17.4
travel blogs	25.4	23.8	16.6	8.0	5.3	20.9
travel vlogs	27.8	21.9	18.7	10.2	4.3	17.1
websites of cities and regions	16.6	9.6	16.8	6.7	11.8	38.5
social networking sites like Facebook, Twitter etc.	46.3	12.0	9.1	13.4	3.7	15.5
profiles of friends in social media	33.2	12.3	8.0	12.3	5.1	29.1
profile of tourism enterprises in social media	17.4	10.7	9.6	10.4	5.3	46.5
online leaflets and brochures of tour operators	19.3	10.7	8.8	10.7	7.2	43.3
personalized emails from tourism enterprises	8.3	6.4	4.3	3.5	2.9	74.6

Notes:

* Response codes: A — I like to use this source; B — Here, I find interesting facts which are nowhere else; C — Here, I find practical information; D — I use this source when I don't know where to go; E — This is the most reliable source of information; F — I don't know it/I don't use it.

Source: Own preparation.

Table 2.
Utility of the Internet source of information about tourism products by daily internet screen time (%)

Internet screen time	Response codes*	Websites of tour operators	Travel portals	Travel blogs	Travel vlogs	Websites of cities and regions	Social networking sites	Profiles of friends I SM	Profile of tourism enterprises in SM	Online brochures of tour operators	Personalized emails from tourism enterprises
	A	38.1	23.8	19.0	27.4	16.7	46.4	31.0	19.0	16.7	7.1
	B	4.8	25.0	21.4	19.0	8.3	13.1	9.5	13.1	16.7	3.6
<1 h,	C	14.3	15.5	22.6	19.0	14.3	8.3	8.3	7.1	6.0	3.6
N=84	D	14.3	11.9	13.1	13.1	9.5	14.3	11.9	13.1	8.3	4.8
	E	4.8	7.1	2.4	3.6	11.9	4.8	6.0	1.2	3.6	3.6
	F	20.2	16.7	21.4	17.9	39.3	13.1	33.3	46.4	48.8	77.4
	A	46.0	35.0	24.8	25.5	13.1	46.7	36.5	16.1	18.2	7.3
	B	5.8	21.9	21.2	22.6	11.7	13.1	12.4	9.5	8.8	8.0
1–2 h,	C	9.5	11.7	14.6	16.8	19.0	8.0	8.8	9.5	7.3	2.9
N=137	D	10.9	8.0	7.3	8.0	5.8	13.9	11.7	8.8	14.6	1.5
	E	10.9	5.8	9.5	6.6	14.6	3.6	3.6	8.0	8.8	2.2
	F	16.8	17.5	22.6	20.4	35.8	14.6	27.0	48.2	42.3	78.1

Internet screen time	Response codes*	Websites of tour operators	Travel portals	Travel blogs	Travel vlogs	Websites of cities and regions	Social networking sites	Profiles of friends I SM	Profile of tourism enterprises in SM	Online brochures of tour operators	Personalized emails from tourism enterprises
	A	39.9	31.4	29.4	30.1	19.6	45.8	31.4	17.6	21.6	9.8
	B	6.5	19.6	27.5	22.9	8.5	10.5	13.7	10.5	9.2	6.5
>2 h, N=153	C	11.1	17.0	15.0	20.3	16.3	10.5	7.2	11.1	11.8	5.9
	D	9.2	5.2	5.9	10.5	5.9	12.4	13.1	10.5	8.5	4.6
	E	11.8	9.2	3.3	2.6	9.2	3.3	5.9	5.2	7.8	3.3
	F	21.6	17.6	19.0	13.7	40.5	17.6	28.8	45.1	41.2	69.9

Notes:

* Response codes: A — I like to use this source; B — Here, I find interesting facts which are nowhere else; C — Here, I find practical information; D — I use this source when I don't know where to go; E — This is the most reliable source of information; F — I don't know it/I don't use it.

Source: Own preparation.

Table 3.
Utility of the Internet source of information about tourism products by the declared tourism expenditure in PLN (%)

Declared tourism expenditure	Response codes*	Websites of tour operators and other tourism organizations	Travel portals	Travel blogs	Travel vlogs	Websites of cities and regions	Social networking sites	Profiles of friends in SM	Profiles of tourism enterprises in SM	Online leaflets and brochures of tour operators	Personalized emails from tourism enterprises
	A	33.7	31.3	25.3	25.3	18.1	53.0	31.3	21.7	21.7	12.0
	B	6.0	18.1	16.9	16.9	8.4	8.4	10.8	6.0	6.0	6.0
<1000, N=83	C	10.8	12.0	19.3	21.7	16.9	7.2	9.6	9.6	7.2	4.8
	D	7.2	6.0	8.4	16.9	4.8	14.5	14.5	8.4	7.2	2.4
	E	10.8	6.0	2.4	1.2	9.6	1.2	3.6	3.6	7.2	1.2
	F	31.3	26.5	27.7	18.1	42.2	15.7	30.1	50.6	50.6	73.5
	A	40.0	31.0	27.7	32.3	16.8	43.2	30.3	12.9	16.8	3.2
	B	6.5	20.6	27.7	20.6	9.7	13.5	12.9	14.2	9.7	7.1
1001–1500, N=155	C	12.3	17.4	12.9	18.7	16.8	9.0	9.0	11.6	11.6	3.9
	D	13.5	7.7	8.4	9.0	5.2	14.8	10.3	8.4	12.9	3.9
	E	11.0	7.7	5.8	3.2	12.9	4.5	3.2	6.5	8.4	2.6
	F	16.8	15.5	17.4	16.1	38.7	14.8	34.2	46.5	38.7	79.4
	A	50.0	28.7	21.3	27.7	18.1	46.8	33.0	21.3	21.3	16.0
	B	6.4	26.6	24.5	24.5	10.6	14.9	16.0	9.6	14.9	3.2
1501–2000, N=94	C	13.8	14.9	21.3	18.1	13.8	10.6	7.4	6.4	7.4	3.2
	D	6.4	9.6	7.4	9.6	12.8	11.7	14.9	16.0	12.8	5.3
	E	10.6	6.4	4.3	5.3	14.9	4.3	9.6	5.3	4.3	6.4
	F	13.8	14.9	22.3	16.0	30.9	12.8	20.2	42.6	40.4	67.0

Declared tourism expenditure	Response codes*	Websites of tour operators and other tourism organizations	Travel portals	Travel blogs	Travel vlogs	Websites of cities and regions	Social networking sites	Profiles of friends in SM	Profiles of tourism enterprises in SM	Online leaflets and brochures of tour operators	Personalized emails from tourism enterprises
>2000, N=41	A	46.3	36.6	26.8	17.1	9.8	43.9	48.8	17.1	12.2	2.4
	B	9.8	22.0	22.0	31.7	9.8	7.3	4.9	9.8	14.6	12.2
	C	2.4	9.8	14.6	14.6	24.4	9.8	2.4	9.8	4.9	7.3
	D	19.5	7.3	7.3	2.4	2.4	9.8	9.8	9.8	4.9	0.0
	E	2.4	12.2	12.2	12.2	4.9	4.9	4.9	4.9	9.8	0.0
	F	19.5	12.2	17.1	22.0	48.8	24.4	29.3	48.8	53.7	78.0

Notes:

* Response codes: A — I like to use this source; B — Here, I find interesting facts which are nowhere else; C — Here, I find practical information; D — I use this source when I don't know where to go; E — This is the most reliable source of information; F — I don't know it/I don't use it.

Source: Own preparation.

Table 4.
Internet-delivered content categories by selected variables describing respondents' behavior

Content categories	Correlation coefficient (r)		
	Tourism expenditure	Time spent browsing websites	Travel frequency
online shopping (clothing, footwear, sports equipment)	−0.0540	0.1055	0.0551
booking accommodation/package travel	0.0291	0.1135	0.2645
booking flights/train or bus tickets	−0.0056	0.0225	0.1164
browsing for information about travel services	−0.0111	0.1043	0.2160
posting comments on tourist attractions on social media	0.0898	0.0518	0.1446
contacting tour operators by email	0.1203	0.0579	0.1040
recommending food	0.0683	0.0985	0.1965
online check-in	0.1817	0.0278	0.1718

Source: Own preparation.

Table 5.
**Media credibility in delivering information about tourism products and services**

Media	M	Me	Mo	Correlation coefficient (r)		
				Time spent on browsing websites	Acceptable tourism expenditure	Travel frequency
generalist TV channels	2.6	3	3	−0.1157	−0.1741	−0.0201
daily press	2.6	3	3	−0.0454	−0.1224	−0.0745
radio	2.7	3	3	−0.3126	−0.1183	−0.0007
thematic TV channels	3.1	3	3	−0.0780	−0.1269	−0.0476
social networking sites	3.4	3	3	0.0652	−0.0304	−0.0093
trade publications (magazines and catalogues)	3.4	4	4	−0.1202	−0.1442	−0.0876
online trade publications	3.4	4	4	−0.0697	−0.1728	−0.0169
internet websites	3.9	4	4	0.1290	−0.0420	−0.0523

Notes:

5-point Likert scale.

Source: Own preparation.

Chart 1.
Utility of Internet-delivered information by components of tourism product (7-point Likert scale)
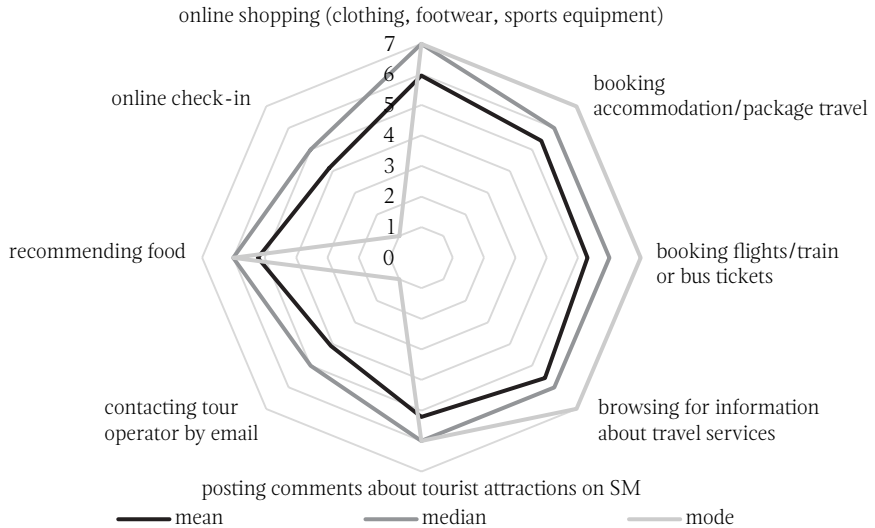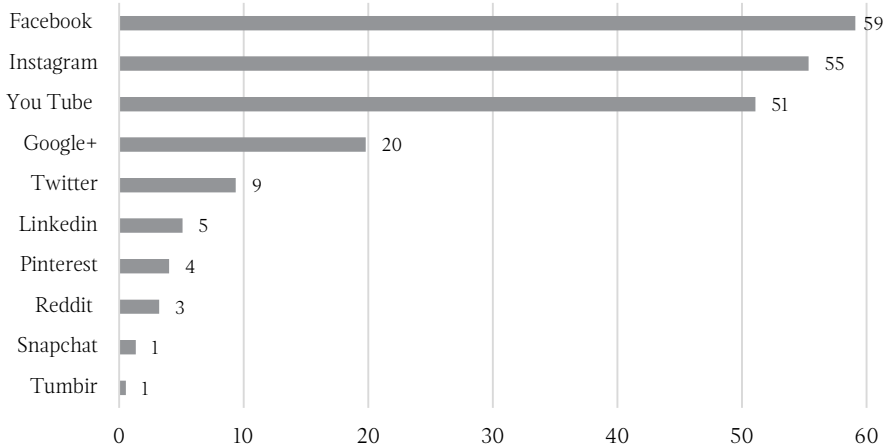

Source: Own preparation.

Chart 2.
Ranking of social networking sites as sources of information about tourism products based on credibility criterion (%)

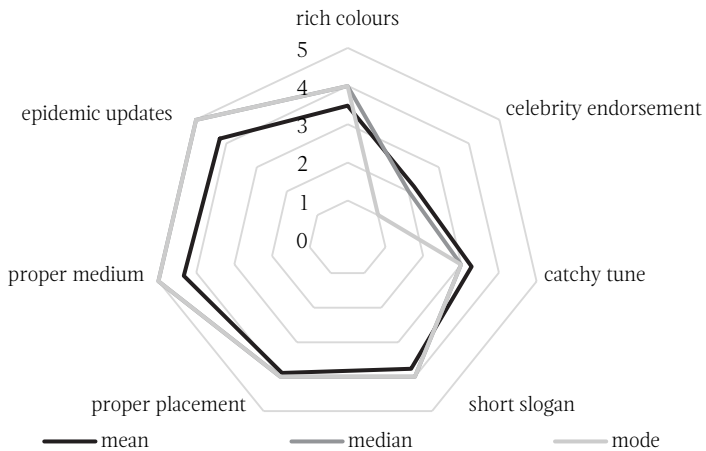| Site	Value
Facebook	59
Instagram	55
You Tube	51
Google+	20
Twitter	9
Linkedin	5
Pinterest	4
Reddit	3
Snapchat	1
Tumbir	1

Notes:

The respondents could select maximum 3 items.

Source: Own preparation.

Chart 3.
Features of a useful advert of a tourism product during the pandemic (5-point Likert scale)

Source: Own preparation.