

The determinants of the effectiveness of geocaching in a region's marketing communication

Abstract

When locations compete against each other for limited resources, their drive to accomplish the goals is referred to as place marketing (Szromnik, 2011, p.19). In achieving the marketing goals of a region (like gaining competitive advantage, creating an attractive image, encouraging to make use of a region's offer, encouraging to live in an area, to visit, invest, boost a place's attractiveness, affecting opinions, attitudes, decisions and behaviour - Trueman et al., 2004; Rumpel and Siwek, 2006; Greenberg, 2008; Florek, 2013; Szromnik, 2015; Hossain et al., 2017), of key importance is organising a system of communication, based on regular exchange of information with the environment and building positive relations with the audience. This may result in changing the perception of the region, modification of views on the region's offer, a change to the audience's attitudes and behaviour (Szromnik, 2011; Florek, 2013).

Marketing communication makes it possible to pursue the tasks of place marketing in many aspects: economic (yielding profits on tourism; attracting new investors), related to urban planning (the region's growth, development of attractive locations, expansion of the infrastructure), social (integration of the society, residents, tourists and visitors), cultural (information about a region's culture, history and traditions), identity-related (building up a region's positive image). The diverse role of marketing communication in a region makes information management a must; it is also a challenge from the point of view of achieving a region's marketing goals.

As a result of the development of modern technologies, people in charge of marketing communication in a region change the structure of the applied communication tools. These modifications stem from the general and easy access to the Internet and the growing interest in mobile devices and applications which make the virtual and real worlds intertwine. This is the reason why the information flow should take place on these two levels

(Rubio-Tamayo, Barrio and Garcia, 2017; Cvitanović, 2018; Abbas et al, 2019). Application of innovative tools connects with the concept of marketing communication in the 21st century according to which marketing communication has the function of transferring knowledge, breaking down access barriers to the offers, creating experiences, boosting engagement, building up long-term relations with the audience and personalisation of the message (Taranko, 2015). Innovative tools applied in a region's marketing communication, defined in this way, include geocaching (Hawkinson, 2018). The game is about hiding caches and looking for them in a specified area, by means of GPS devices. Therefore, a region and its elements, products and infrastructure are an indispensable part of the game. Geocaching is a tool that makes it possible to interact with the audience and it allows the audience to create information and provide feedback. Typically, geocaching is initiated by the same participants who create the messages, who are in charge of the content by placing descriptions, photos, and information online. As a result, the players become active members of marketing communication (Linaza, Gutierrez and Garcia, 2014).

A review of literature on the subject leads to a conclusion that geocaching is a game raising interest among the participants and the entities in charge of a region's promotion and image building. However, since geocaching is created predominantly on the initiative of the players (the game has a bottom-up nature), a question arises if and how the game can contribute to achieving the goals of a region's marketing communication and what conditions need to be fulfilled by the entities responsible for management in the region for geocaching to be an effective marketing communication tool.

Hence in the work, the following research question has been posed: What are the determinants of effectiveness of geocaching in achieving the goals of a region's marketing communication? The dissertation's main goal is to define the components of geocaching's effectiveness as a tool of a region's marketing communication.

In relation to the main goal, three detailed goals have been defined:

- 1) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the region's authorities;
- 2) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the players;
- 3) Identifying the level of variability of the specific components of geocaching that impact the effectiveness of the game as a tool of a region's marketing communication.

Consequently, in the doctoral thesis, the following hypothesis has been put forward: The effectiveness of geocaching as a tool of a region's marketing communication is determined by the following components: Social relations, Benefits, Internal communication, Involvement, and the Game structure.

Factor analysis is the method used to verify the hypothesis. In this doctoral thesis, Principal Component Analysis (PCA) has been used to analyse the major components. In this work, the research process consisted of three stages.

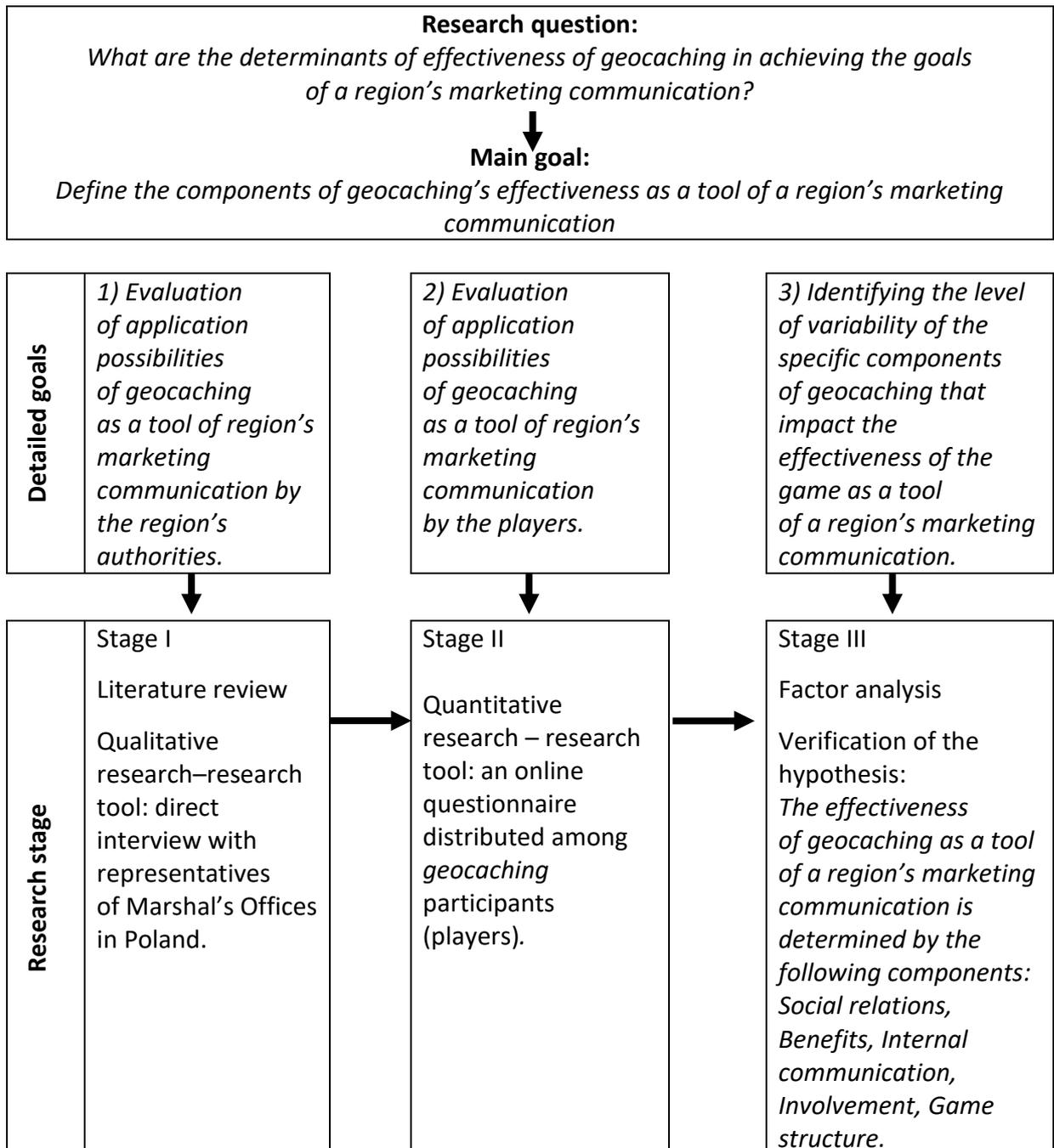
The goal of stage one was to design a questionnaire which was later used in factor analysis to verify the adopted hypothesis. At stage one, an analysis was carried out of literature on the subject in order to identify the features of geocaching which potentially determine the game's effectiveness as a tool of a region's marketing communication. At a subsequent stage of the research procedure, representatives of Marshal's Offices were asked the opinion on the possible applications of geocaching in a region. The opinions were used to define the dependent variables, to choose the independent variables and to confirm statements identified on the basis of literature on the subject. Qualitative research has also been used to refer to the dissertation's detail goal: 1) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the region's authorities.

Stage two of the process consisted in carrying out quantitative research by means of an interview questionnaire (in the form of an online questionnaire) on geocaching participants. The goal of this stage of the research process was to collect data which were later used to carry out a Principal Component Analysis. The quantitative research also made it possible to achieve the detailed goal 2) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the players.

Stage three of the research process included a Principal Component Analysis in order to eliminate the weakest factors (the research revolved around variables determining the effectiveness of geocaching as a tool of a region's marketing communication) and to decrease the number of dimensions which describe the impact on the effectiveness of geocaching as a tool of a region's marketing communication. The results allowed to accomplish the detailed goal of the doctoral thesis 3) Identifying the level of variability of the specific components of geocaching that impact the effectiveness of the game as a tool of a region's marketing communication.

The above stages of the research process led to identification the key components owing to which geocaching could be applied as an effective tool in achieving the goals of a region’s marketing communication. Therefore, it was possible to accomplish the dissertation’s main goal: Define the components of geocaching’s effectiveness as a tool of a region’s marketing communication and verifying the hypothesis. The research process is presented in a diagram in Figure 1.

Figure 1. A diagram of the research process



Source: author’s own compilation

Geocaching first marked its presence in 2000 and therefore the timeframe adopted in the dissertation refers to publications from 2000 - 2021. On the other hand, own empirical research pertains to 2020-2021. Geocaching is a global game, and this is why an analysis of the efforts made to use geocaching in a region's marketing communication embrace countries from all over the world. However, the spatial range adopted here encompasses regions in Poland (qualitative research on representatives of Marshal's Offices in Poland, quantitative research into geocaching participants, inhabitants of Poland).

The research subject is the effectiveness of geocaching as a tool of a region's marketing communication. In this work (and in the domestic literature on the subject), a region encompasses a voivodship (Chojnacki and Czyż, 2000; Florek, 2013; Rudolf, 2016). Notably, the rules of geocaching do not specify location barriers; typically, the game takes place in a large area, the players create caches in large areas and the geocaching paths lead the participants in a specified location within a larger space.

The entity range of the dissertation includes representatives of 16 Marshal's Offices in charge of promoting, building up a region's image and/or managing a region brand and geocaching audiences (game participants) active in regional and domestic Geocaching Groups in Poland operating by means of social media (Facebook, Forum OpenCaching).

This dissertation consists of four chapters. In chapter one: "A region's marketing communication" the important role of communication in place marketing is presented. The premises which affect the required response and adjustment of actions (including marketing-related) on the part of cities and regions to the changing conditions in the environment have been identified. A region's goals were defined, the accomplishment of which is supported by marketing communication. The elements of a region's marketing communication (the senders, the receivers, the message, the channel, the communication tool, audiences of a region's marketing communication) were identified. What is more, in this chapter management of marketing communication in a region was analysed and the entities and stakeholders participating in the process were identified. The determinants of the effectiveness of a region's marketing communication were identified and the way in which a region's marketing communication is measured was determined.

In chapter two: "Geocaching as a tool of a region's marketing communication", the trends in a region's marketing communication based on modern technologies were presented. The nature of geocaching and the related market were described. Next, the features

of geocaching, potentially determining the game's effectiveness as a tool of a region's marketing communication were identified. The possibility of using geocaching as a tool of marketing communication applied by a region's authorities was evaluated. In the chapter, the results of own qualitative research carried out with representatives of Marshal's Offices responsible for promoting, creating the image and managing the brand in the regions were presented.

In chapter three: "The components of geocaching vs. the effectiveness of a region's marketing communication" the methods of identifying the components of geocaching which potentially condition the effectiveness of the tool in question together with their detailed characteristics were presented. The process of identifying the components was presented; a list of potential features of geocaching was made from which "representatives" of the group were selected (components of the game). The respondents' opinions from the qualitative research carried out on representatives of the Marshal's Offices were presented. In the subsequent sub-chapters, five selected game components were characterised in detail.

In chapter four: "The factors of geocaching's effectiveness" the methodology of the empirical studies was presented. The efforts aimed at constructing the questionnaire were described which referred to the identification of features pertaining to the specific components. Next, another step of the research procedure was presented in the course of which the specific features were operationalized in the form of questions. Together with the respondents' opinions obtained during the qualitative research, carried out on the representatives of the Marshal's Offices, these questions were used to construct the statements used in the research questionnaire. In this chapter, the results of factor analysis of the features determining the effectiveness of geocaching in a region's marketing communication were presented. Next, the possibility of applying geocaching as presented by the players was identified. The chapter ends with recommendations for regional authorities on effective application of the suggested tool.

In this doctoral thesis, the effectiveness of geocaching as an innovative tool was discussed. The related discussion illustrates the potential of geocaching and confirms the opinion that the game can be effectively used to complete tasks related to building up a region's positive image, enriching knowledge of a region and that it allows for broad communication with the target groups. The game's benefit is a fact that a region's marketing

communication is established by means of geocaching takes place in the virtual and real worlds alike.

The main goal of this dissertation was to define the components of geocaching's effectiveness as a tool of a region's marketing communication. The main goal of the doctoral thesis has been accomplished as a result of factor analysis, on the basis of which four components which determine the effectiveness have been identified. Therefore, verification of the hypothesis by means of a Principal Component Analysis was the reason for rejecting the hypothesis adopted in the dissertation that the effectiveness of geocaching as a tool of a region's marketing communication is determined by the following components: Social relations, Benefits, Internal communication, Involvement, and the Game structure. As a result of the research, the effectiveness of geocaching as a tool of a region's marketing communication is determined by the following four components: "Benefits", "Involvement", the "Game structure" and "Social relations".

The identification of the above components was possible owing to achievement of the detailed goals specified in the dissertation owing to which additional information was obtained, of importance to the research issue and of considerable application potential.

Goal one: 1) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the region's authorities, has been accomplished as a result of the qualitative research on the representatives of 14 Marshal's Offices in charge of promotion, building up a region's image and/or managing a region's brand. As a result of the interviews, the way in which a region's authorities evaluate the possibilities of geocaching as a tool of a region's marketing communication has been determined. According to the respondents, the game is an innovative tool with potentially great opportunities of use to achieve the goals of a region's marketing communication, specifically to build up a region's positive image, presenting the region's values, providing for interaction between the participants and the environment, boosting the audience's knowledge about the region and its offer, providing experiences, building up awareness and increasing tourist traffic. At the same time, the respondents admitted that geocaching can be treated as a tool supporting and supplementing promotional activities. Moreover, geocaching is a tool that makes it possible to create space of cooperation among the stakeholders. In summary, the respondents considered the game as an attractive tool of a region's marketing communication.

As part of the detailed goal 2) Evaluation of application possibilities of geocaching as a tool of region's marketing communication by the players, it was possible to define how the players evaluate geocaching in the analysed context and identify features of importance to the players. As a result of accomplishing this goal, the potential target groups of a region's marketing communication, established by means of geocaching have been identified. Following quantitative research into the players (346 respondents), it has been concluded that the target group for communication activities using the game is the 35-44 age group of people with tertiary education. Addressing the marketing message through geocaching to these target groups will be the strongest determinant of the effectiveness of geocaching as a tool of a region's marketing communication because they take active part in the game, are technology-oriented and expect information about the region during the game while their knowledge on the game location will broaden.

The last detailed goal 3) Identifying the level of variability of the specific components of geocaching that impact the effectiveness of the game as a tool of a region's marketing communication has been accomplished by means of a Principal Component Analysis. Of greatest importance (highest volatility) was the "Benefits" dimension (16.2%), followed by the "Involvement" dimension (10.9%), the "Game structure" (9.6%) and "Social relations" (8.1%). The results obtained as part of goal 3 have made it possible to make detailed recommendations for using the game as a tool of a region's marketing communication, additionally supported by the results from own research (goals 1 and 2).

Therefore, the benefits expected by the players are the strongest source determining the effectiveness of geocaching as a tool of region's marketing communication. The benefits include enriching knowledge of a region; discovering new and interesting site in a region; experiencing the game location's culture and history. These benefits motivate players to start the game and therefore the game should be designed in a way highlighting these benefits.

"Involvement" is another dimension which determines the effectiveness of the game as a tool of a region's marketing communication. The results of the research confirm that for a tool of a region's marketing communication to be effective, the participants of the communication should be involved in developing and applying thereof.

The "Game structure" is another component which, according to the research results, is of importance to the effectiveness of geocaching as a tool of a region's marketing

communication. This structure is built up of elements that make it possible to play the game like competition which inspires the participants to pay attention to details on the game site.

“Social relations” are the last dimension determining the effectiveness of geocaching as a tool of a region’s marketing communication. Geocaching provides space to build up social relations when the participants meet new people. The game also provides an opportunity to integrate and build up a sense of belonging. When designing a game, one should make use of mechanisms for building up a space that facilitates the participants’ bonding because this contributes to exchanging information about one’s experiences.

The considerations included in this doctoral thesis lead to a conclusion that geocaching offers broad possibilities in the realm of accomplishing the goals of a region’s marketing communication. The game allows to build up a positive image of a region and provide information about it. Geocaching is also an attractive tool used for learning, tourist, promotional, image-related and educational purposes. To players, geocaching is a tool of getting to know and exploring a region; the game changes their perception of the site of the game which to them becomes more attractive. A region’s authorities appreciate the game for providing access to the game’s participants who are an ambitious and involved group. Notably, involvement in the game translates into participation in a region’s marketing communication.

A review of literature on the subject coupled with the results of own empirical studies lead to a conclusion that geocaching is a game that raises interest of the players and the entities in charge of promotion and building a region’s image. This makes it a potential tool of achieving the goals of a region’s marketing communication. It is important to note that according to research result there are four components-important for participants-“Benefits”, “Involvement”, “Game Structure”, “Social relations” which determine the effectiveness of geocaching as a tool of a region’s marketing communication.

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