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Master’s thesis

ELECTRONIC WORD OF MOUTH SPILLOVER DISTRIBUTION WITHIN THE DESTINATION FORMING NETWORK, RUKA-KUUSAMO CASE

Edgars Labors, 2019

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ABSTRACT

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Electronic word of mouth (eWOM) is the well-known phenomena and its impact to companies is widely covered topic. However, in the case of the tourism industry, the impact of eWOM is studied only to a focal object or the whole destination. At the same time, the existing theories lead to the assumption that eWOM affects not only a focal object or destination but also non-focal objects within the network that forms a destination through the spillover effect. This, in turn, discovers the gap in existing literature. This work is aimed to cover the gap by exploring the electronic word of mouth spillover appearance and distribution within destination forming network as well as emphasize the importance of utilization of network approach in destination management.

The empirical part of this work is based on the data gathered from 689 participants randomly assigned to the three groups. Each group had been asked to evaluate changes in their attitude towards the objects from the destination network after reading differently valent eWOM (positive, negative and neutral). The results of this study show the existence of spillover effect to the non-focal objects from a network generated by eWOM related to a focal object from the same network. This, in turn, suggest that commonly used evaluation only of the direct impact of eWOM to a destination or its forming components may lead to the risk that the impact will be underestimated since the power of spillover effect generated by eWOM is not considered in this case.
Acknowledgments

When starting the studies, the master thesis and graduation seemed to be far away, however, time fly fast and here I am – writing the last page of this work. The study years had been fulfilled with new opportunities, knowledge, challenges, friends, and events that created memorable moments and valuable experience.

I am glad that during my studies I wasn’t alone and could rely on support and help from others. Big thanks to my friends and family for supporting me and motivating during the studies and thesis writing process. I would like also to thank LUT professors and staff, for sharing their knowledge, supporting and being flexible, much appreciated. Addition thanks for the thesis supervisors Anssi Tarkiainen and Olli Kuivalainen for valuable comments and guidelines in this work creation. Moreover, this research would not be possible without the help of several tour agencies and travel operators, hence I am thanking managers of these companies for their co-operation.

Studies at LUT gave me essential knowledge and experience that will be utilized in my future career. The environment in LUT and student campus made my studies joyful and thanks to classmates and university friends I really enjoyed being and studying in Lappeenranta, however now it is time to close this chapter of my life and open a new one.

Kuusamo, September 2019

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APENDICES

Appendix 1. The survey questionnaire.

List of abbreviations

WOM Word of mouth
eWOM Electronic word of mouth
gWOM General word of mouth (representing both, WOM and eWOM and their common aspects)
ICT Information and communications technology
1 INTRODUCTION

We are living in a constantly changing environment, where well-known things today can develop into something new tomorrow. Same with WOM phenomena. Future parts of this work will describe that for centuries studied and well-known thing occurred in a new way after the appearance and development of ITC. The new chapter in WOM history is known as eWOM.

Totally different environment of eWOM presence and differences with WOM in certain dimensions made it an attractive object for new studies. Yet, not all aspects had been researched so far. As one of such is eWOM spillover distribution within destination forming network. This work is aimed to open this topic.

This work will try to emphasize the importance of collaboration between parties forming destination and collaborative utilization of eWOM power. To show it, this work takes a look at the importance of eWOM in tourism destination, theories supporting the network approach for viewing a destination as well as conducts research that answers whether eWOM can spillover within a destination forming companies or not.

1.1 Background

Word of mouth (WOM) had been used for centuries, however, as a marketing research object, it becomes only after 1940 (Buttle 1998). The first attempts to define WOM had been made by Arndt in 1967. He describes this concept as “oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product, or service’. This definition remains pretty the same also today (Brown et al. 2005). Arndt (1967) also highlights the power of WOM, that is seen as an impact to sales. Later the power of concept had been researched more deeply and the correlation between WOM and sales had been explained by discovering parts of the consumer decision-making process which are affected by WOM (Herr et al. 1991, Nawaz et al. 2014, Lerrthaitrakul & Panjakajornsak 2014).

Technological progress and appearance of the internet lead to the appearance of electronic word of mouth (eWOM) (Okazaki 2009). As eWOM is recent phenomena that started to grow only in the 21st century, related to this topic researches also are new (Breazeale 2009).
Hennig-Thurau et al. (2004) attempted to provide the first definition of eWOM as the “statement, made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet”. However, peer-to-peer online communication can be done also on other levels (Thorson & Rodgers, 2006) as well as it can happen that chatter is not a consumer at all (Breazeale 2009). Recent works also criticize early definition and there is a need for a new conceptualization of eMOW (Shu-Chuan & Yoojung, 2011; Strutton et al., 2011).

Even though that accurate description is not established yet, the effect of eWOM to businesses and consumer decision making process is well-covered research topics (Vilpponen et al. 2006). In the context of tourism, eWOM has a significant impact to a destination image, tourist attitude toward a destination and travel intention (Jalilvand et al., 2012) These, in turn, affect destination loyalty, an important indicator for building correct marketing campaigns and allocating finances (Rajesh, 2013). Jalilvand & Neda (2012) emphasize the importance of utilizing eWOM by organizations operating in the tourism industry via building online travel communities and stimulating tourist’s participation in them.

Deaarden and Harron (1992) explain that the tourism destination life cycle is based on an acknowledgment of adventurous tourist who discovers new experiences (new destinations or product) and share thoughts with others, hence “diffusion and marketing momentum for new destinations” appears. From that follows that WOM and eWOM is the base of any touristic product. Review of recent researches on eWOM impact to tourism products worldwide by Litvin et al. (2008) also proves this statement, as it was found that eWOM is powerful enough to either boost or kill tourism destination. WOM that influenced tourist is influencing also his post-visit/ post-purchase WOM, as creates a certain level of expectations that in some cases cannot be met by server provider (Diaz-Martin et al., 2000).

The role of eWOM in tourism industry is growing as more and more tourists are getting information and bookings on-line. According to Eurostat (2016) in 2015 4 from 10 Europeans are looking for travel-related information on-line. Despite traditional WOM, eWOM “exists in online space which can be accessed, linked and searched”, that means that by an increasing number of tourists who search information on-line, eWOM will have even more crucial impact to their knowledge and perception (Litvin et al., 2008). eWOM becoming also a more popular object for recent studies as eWOM effect on the tourism sector
can be determined easier than the effect of traditional WOM. Due to eWOM nature, data is available for researchers in the form of online feedbacks and reviews and opportunity to track actions of online consumers. This allows furthering developing of researches on eWOM impact. (Jalilvand & Neda, 2012; Litvin et al., 2008; Albarq, 2014).

Current works examine the impact of eWOM either to the whole destination or concrete business. However, the tourism destination is seen as an “amalgam of tourism products, offering an integrated experience to consumers” (Buhalis, 2000), therefore, eMOW related to a component of a destination shall affect the destination in general and hence also other individual components that form the destination. Such relations were not overviewed yet. The current approach of considering destinations in researches can be explained by the tourist viewpoint, where a destination is considered as a product (Klimek, 2013). Even though, in this case, the destination is defined as a collection of experiences (Klimek, 2013). Baggio (2008) also support the idea to consider destinations as networks or complex dynamic systems. Managerial articles also are focusing mostly on implementing EWOM either by individuals or by destinations (Baggio et al., 2009) however link with ecosystem or networks that form a destination is missing.

Networking is a vital part of the proper management of a destination; hence the tourism sector is considered as one with the most inter-organizational networks (Bickerdyke, 1996). Destination networks allow information and knowledge flow that influence growth, productivity, and innovation. Moreover, the structure of a network affect the speed of information distribution between parties, hence also their capabilities to develop themselves and destination in general (Argote & Ingram, 2000). Additionally, in literature networks are seen as an essential channel for maintaining public-private relationships, understanding the model of tourism governance (Proff, 2002) and analyzing the evolution of business and product development (Tinsley and Lynch, 2001). Therefore, the network-based view of a destination is appropriate to analyze the distribution of eWOM impact within a destination.

1.2 The aim of the study and questions

WOM proved to be a powerful influencer to consumer buying behavior and lead to a directly proportional impact to businesses. Hence studies of such impact and frameworks for management are popular topics in researches. Recent works are focusing also on eWOM.
Nonetheless, while speaking about tourism destination; current researches discover the impact of eWOM only to a destination as a unit or to an individual organization within a destination. Consequently, understanding of eWOM impact distribution within an ecosystem or network behind a destination is missing. Such knowledge would help to correctly utilize and manage eWOM at destinations as well as prove the importance of seeing destinations as a network.

To cover the existing gap, this work is aimed to answer the following question:

Main research question:

**RQ:** How eWOM spillovers affecting tourist attitude towards a destination and its forming components are distributed within the destination forming network?

Following sub-questions will help to find more about the selected topic:

1. What is the correlation between eWOM generated direct impact and spillover effect within a destination forming network?
2. What factors affect spillover effect appearance and distribution within a destination forming network?

### 1.3 Theoretical framework

The key concept utilized in the theoretical part of this work creates the theoretical framework. This framework is presented in figure 1, that shows the connection between the concepts. The main concepts used in this work are the electronic word of mouth and its impact, tourism destination and characteristics of the tourism industry, network approach, spillover effect. The following paragraph defines key concepts. Furthermore, the theoretical framework will lead to settling hypotheses in terms to answer the research question.
1.4 Key concept definition

**Word of mouth** - “oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product, or service” (Arndt 1967).

**Electronic word of mouth** - “A statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet” (Thurau et al. 2004).

**Tourism destination**, general definition – “fundamental units of analysis in tourism” WTO (2002); “geographical unit visited by tourists being a self-contained centre”. (Burkart and Medlik 1974)

**Networking approach in defining tourism destination** - “Destinations are considered as complex systems, represented as a network by enumerating the stakeholders composing it and the linkages that connect them”. (Baggio et al. 2010)
Spillover effect - “an effect of an intervention on subsequent behaviors not targeted by the intervention” (Truelove et al, 2014).

1.5 Research methodology

A quantitative approach was used to conduct this research since its aim is to find out relationships between variables. As the intervention of an independent variable is planned, the experiment is believed to be the most appropriate way how to reach the results. (Drummond and Murphy 2018).

The valence of eWOM is set as an independent variable, while tourist attitude to different players of tourism destination forming network – as a dependent. Experiment utilize existing reviews of services in Ruka published at TripAdvisor to create surveys. The surveys are randomly distributed between the sample by forming three groups. Control group received the questionnaire with the review that is assumed to be neutral. Experimental group A received the form with a positive review, while experimental group B- with a negative review. The screenshot of the review included in the questionnaire was the only visible difference between the three survey forms used in this research.

The experiment is based on theoretical evidence that different valence of eWOM leads to different results. Statistical analyses and tests of gathered data will show whether there are any significant differences between three groups, that in turn will lead to conclusions used to test hypotheses and answer research questions.

1.6. Delimitations of the study

This work is focusing on the distribution of eWOM spillovers within destination forming network. Since the research is based on the Ruka ski resort (Finland) case, results of the work may not be applicable to other destinations. Main factors for that could be differences in destination forming networks as well as tourist types/nationalities presented in different destinations. Future similar researches in various destinations would allow to compare results and make general conclusions.
Secondly, the object of this work is eWOM related to spillovers. Due to the existence of several differences between eWOM and WOM described in this work, the spillover effect of WOM may differ from eWOM spillovers. Since WOM is part of gWOM, outcomes of this work may not be generalized.

Thirdly, collected data analyzed in the work is based on tourist estimations rather than on an evaluation of real opinion changes. In real life, people may behave not in the same way as they estimate. Moreover, in the real-life various other factors besides eWOM may affect tourist attitude towards service providers. Therefore, managers implementing outcomes of the research shall count on other factors, such as trust towards eWOM source.

Finally, during the survey for data collection, respondents been given concrete positive and negative review of the focal company. The same review may be evaluated differently by various people. Also, in real life, customer opinion more likely will be based on a combination of reviews rather than one. Thus, it must be understood that each company has a unique combination of different reviews and therefore the power of eWOM spillover effect will vary from company to company.

1.7 Structure of the work

This work is divided into five chapters: introduction, literature review, research design, results and discussions, that furthermore can be divided into two parts: theoretical and practical. The first chapter – introduction, provide brief information on what about is this work. It explains the main theories and key concepts utilized in this work as well as set delimitations.

The second chapter provides a deeper overview of existing theories and researches related to the topic. As first, WOM and eWOM are explained and differences between them are pointed. Following, this chapter describes the impact of eWOM on tourism destination, provide information on tourism destination and key characteristics of the tourism industry. Then phenomena of spillover effect and studies on the topic of gWOM spillover effects are overviewed. The chapter is closed with the summary of settled hypothesis.
The next chapter is dedicated to the research methodology and data collection. It explains the selection of methods used in this work in order to answer research questions. Process of data collection, survey pre-testing, data clearance, and analyses also is explained.

Following chapter shows the results of this work. Statistical tests are implemented to check whether the settled hypotheses are true or false and the statistical measurements are interpreted. Summary of the chapter provides a comprehensive table of the results.

The last chapter discusses the results of this work. The theoretical contribution is presented in the form of answers to the research questions. Managerial implementations provide suggestions on how this result could be used in the practice. Research limitations and suggestions for future researches are closing this chapter. List of references and appendixes can be found at the end.
2 LITERATURE REVIEW

This chapter provides an overview of existing literature related to the topic. Existing researches and findings had been taken as a ground for developing this work and setting hypothesis. At first, this chapter explains the phenomena of word of mouth and electronic word of mouth. Further, the effect of the phenomenon to a tourism destination, and tourism destination are overviewed. Spillover effect and its relation to word of mouth are explained besides. The chapter is closed with the overview of set hypotheses.

2.1 Word of mouth and electronic word of mouth

Word of mouth (WOM) had been used for centuries, however, as a marketing research object, it becomes only after 1940 (Buttle 1998). The first attempts to define WOM had been made by Arndt in 1967. He describes this concept as “oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product, or service”. This definition remains pretty the same also today (Brown et al. 2005). Arndt (1967) also highlights the power of WOM, that is seen as an impact to sales. Later the power of concept had been researched more deeply and the correlation between WOM and sales had been explained by discovering parts of a consumer decision-making process which are affected by WOM (Herr et al. 1991, Nawaz et al. 2014, Lerrthaitrakul & Panjakajornsak 2014).

Technological progress and appearance of the internet lead to the appearance of electronic word of mouth (eWOM) (Okazaki 2009). As eWOM is recent phenomena that started to grow only in the 21st century, related to this topic researches also are new (Breazeale 2009). Hennig-Thurau et al. (2004) attempted to provide the first definition of eWOM as the “statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet”. However, peer-to-peer online communication can be done also on other levels (Thorson & Rodgers, 2006) as well as it can happen that chatter is not a consumer at all (Breazeale 2009). Recent works also criticize early definition and there is the need for a new conceptualization of eMOW (Shu-Chuan & Yoojung, 2011; Strutton et al., 2011). Even though that accurate
description is not established yet, the effect of eWOM to businesses and consumer decision making process is well-covered research topics (Vilpponen et al. 2006).

WOM and eWOM are related to each other, nonetheless, the range of significant differences exist. The sum-up of the variations discussed below is presented in Table 1. The differences are related to diverse communication channels and can be seen in the following dimensions: speed, scalability, measurability, accessibility, and credibility. In WOM information is shared within small groups of individuals and process is synchronous while eWOM assume asynchronous information flow, that quicker reach larger scale of an audience (Hung and Li, 2007; Steffes and Burgee, 2009). eWOM exist in the format of the online text that allows to store it in accessible to a population environment, hence is more accessible than WOM (Lee et al. 2008), same makes eWOM more observable and measurable (Lee et al. 2008; Chatterjee, 2001).

WOM is found to be more credible than eWOM as in the first one information exchange occurs on the face-to-face level and message sender is known while in the second sender can be anonymous (Cox, et al. 2009, Hung and Li, 2007). Cox et al (2009) argue that distinction in credibility even leads to a difference in the impact of WOM and eWOM, making fundamental one as a more powerful tool. Opposite to that, Hussain et al. (2017) provide evidence that eWOM is used more often by consumers to reduce their risk during the decision-making process than WOM.

Sen (2008) support the credibility argument by finding common characteristics between marketer generated messages and eWOM. The fact that eWOM verification process is not developed yet create space for false reviews of a product. At the same time, Sen (2008) emphasizes that difference in credibility makes individuals evaluate eWOM messages more carefully than WOM messages, hence contrasts in WOM and eWOM power cannot be seen. Valence, volume, and source of messages are the main factors in evaluating eWOM by individuals, after evaluation, eWOM, same as WOM, has a significant impact on consumer behavior (Lopez and Sicilia, 2014). Moreover, credibility to eWOM increase as an individual got more experience in utilizing it (Sotiriadis and Van Zyl, 2013).

Although several opinions regarding the difference in credibility and power between WOM and eWOM exist, most sources prove that eWOM in certain cases by an individual can be seen as a less credible source than WOM. However, by assuming this fact, individuals tend
to evaluate information more carefully and gain experience in using eWOM, hence eWOM will be still the source of information and may affect consumer decision. Based on that, it is hard to make conclusions regarding the difference in WOM and eWOM power, as both have advantages and disadvantages, further research that would evaluate WOM and eWOM performance in the same scenario is needed to make any concrete conclusions. (Hussain et al. 2017, Sotiriadis and Van Zyl, 2013).

The statistical research on global trust by Nielsen (2015) supports the most common argument that WOM is more credible source then eWOM. Researched based on 30 000 respondents from more than 60 countries shows that 83% of population trust in recommendations from people they know (WOM), while the percentage of trust towards feedbacks posted online (eWOM) is 66%. Despite the significant difference in trust level to eWOM and WOM, eWOM still can be considered as a rather trusted source of information, since it overdoes trust to all forms of advertisement and has same trust level as newspaper articles. Moreover, level of trust towards eWOM wary between countries and generations: 70% of millennials (age 21-34) trust to eWOM while between silent generation (65+ years) level of trust is only 47%. This, in turn, shows that eWOM has a different power to different segments.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>eWOM</th>
<th>WOM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form of existence</strong></td>
<td>Online/ recorded</td>
<td>Oral</td>
</tr>
<tr>
<td><strong>Speed of spreading</strong></td>
<td>Quick</td>
<td>Slow</td>
</tr>
<tr>
<td><strong>Scalability</strong></td>
<td>Wide/ big masses</td>
<td>Narrow /small groups</td>
</tr>
<tr>
<td><strong>Credibility to the source</strong></td>
<td>Moderate (66%)</td>
<td>High (83%)</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>Accessible</td>
<td>Less accessible</td>
</tr>
<tr>
<td><strong>Measurability</strong></td>
<td>Possible</td>
<td>complicated</td>
</tr>
<tr>
<td><strong>Source of spreading</strong></td>
<td>In most cases online user, that can be anonymous or isn’t known by listeners</td>
<td>In most cases a person that is observed by a listener, and can be personally known by him</td>
</tr>
</tbody>
</table>

*Table 1. Key differences between eWOM and WOM.*

Further, some scientists consider eWOM and WOM as the same phenomena and assume that eWOM is just the electronic version of WOM and do not highlight any differences between
them (Filieri and McLeay, 2014). Hence, several available pieces of research, especially the ones before eWOM conceptualization, provide information on word of mouth as general phenomena, to avoid confusion, term general word of mouth (gWOM) is used in this work, and is representing the combination of both – WOM and eWOM and their common aspects.

2.1.1 eWOM classification

WOM definition provides a clear understanding that WOM exists in oral form. In the case of eWOM, lack of conceptualization, as well as the fact that the great number of researches are using reviews as eWOM indicator, may lead to confusions in seeing eWOM. This section observes existing literature on forms and types of eWOM.

Litvin at al. (2008) implemented eWOM classification by channel involved in message sharing, defining three types: one to one, one to many and many to many. All types assume that eWOM is shared in the form of a message through the internet. One to one type includes messages through email or private chat, however, since in this type message reach one person, that goes against with scalability as one of the eWOM characteristics (Lee et al. 2008; Hung and Li, 2007), it is still discussed topic weather this type of messages can be seen as eWOM. The second type by Litvin at al. (2008), one to many, including platforms opened to wide audience thought without an opportunity to contribute (e.g. comment). Last type, many to many, is message shared on open platforms where other users are joining the conversation by rating the message, commenting or providing own message.

eWOM differs not only by the channel its distributed but also by the form in which it is presented. However, the detailed classification of eWOM is missing in the current researches. Combination of the various works allowed to define following forms of eWOM: visuals, text, and actions. The visuals are any photos or videos generated and shared by a user that includes any connection with a product. In the field of tourism, that can be any visuals showing the destination or emotions that customer experience while consuming service. (Buhalis & Law, 2008). The text form of eWOM is commonly used and discussed in many works (e.g. Litvin et al.2008, Jalilvand et al.2012, etc), and is any statement regarding a product made by a consumer in the text form and shared thought ICT.
The last form that can be found in the current literature is so-called actions. As such it can be likes, reviews, and comments. This form can be allocated only to certain eWOM distribution channels, for instance, Instagram and Facebook. Since any action (if not set otherwise) is visible to the friends or followers of an individual, by performing an action (e.g. liking a post) the individual creates eWOM, that shows his support to certain product or behavior. Moreover, in this case, the post by itself not necessary is eWOM, it can be content generated in commercial purposes, such as advertisement. (Erkan 2015).

Different categories/types of eWOM have different implementation and impact. One of the reasons for that is the level of trust to various sources. For instance, many-to-many types generally are more trusted due to the number of messages, hence will have a stronger impact on consumer behavior. While one to many channels are more powerful in terms of boosting eWOM (Litvin et.al). The same applies to categorization by form of eWOM, Buhalts & Law (2008) says that visual form of eWOM is the most powerful in creating destination image, while eWOM on form of actions allows increasing audience that receives the original message and can be utilized as a tool to boost eWOM creation in certain social medias (Erkan 2015).

2.2 Word of mouth in tourism

Impact and effect of eWOM to businesses and customer decision making process is the trendy and well-covered topic in scientific literature, even though there is a lack in conceptualization and updated definition of the phenomena (Vilpponen et al. 2006). Since the impact, as well as implementations of eWOM in various strategies, vary between various industries, this chapter is concentrating only on eWOM relevance to the tourism industry. For a better understanding of the industry-related impacts, key differences of the tourism industry, as well as a brief explanation of tourism destination and related theories, is provided at first.

2.2.1 Key characteristics of tourism destination, industry, and product.

The classic definition of destination is given by Burkart and Medlik (1974): “a tourism destination is a geographical unit visited by tourists being a self-contained centre”. WTO
(2002) see destinations as “fundamental units of analysis in tourism”. Future developments of definition are based on an approach used by authors and emphasize various aspects of destination existence and impact. For instance, borders of destination can be set by physical, marketing, and cultural aspects, in various cases it can be a whole continent, country or single park, etc. Therefore, confusion regarding the borders of destinations is the known challenge in tourism management. (Zemla 2016).

Tourism destination from researchers’ point of view is seen either as one whole organism or as a network of facilities that forms the destination (Klimek 2013; Baggio 2008). These approaches are explained in paragraph 2.2.2. Regardless of a destination viewing approach, it is accepted that the same category of players may participate in forming an entity or network (Baggio 2008; Ammirato et al 2014). The players can be divided into the following four categories; however, it must be noted that not necessarily all categories are presented in each destination:

- Hospitality service providers (e.g. hotels and restaurants)
- Transportation service providers (e.g. airplanes, buses, taxi)
- Event management service providers (e.g. conference, concert, and sport event organizers)
- Complimentary goods and services providers (e.g. museums, sports facilities, excursions, etc.)

While companies that form a destination may operate dissimilarly and have different own goals and visions, in contrast to many other industries they all are tightened with the aim to develop the destination and increase the competitiveness of the destination against other destinations. (Ammirato et al. 2014)

Sustainable development of destination is linked to supply chain management. In most destinations supply chain is under influence of big companies, commonly international tour operators, who in turn controls sales and tourist flow. At the same time interests of such companies often are driven by a quick return on investment and profit generation, that may lead to the degradation of a destination. The recent trend in the industry is changing from centralized chain management to collective, where power over control is switched from a big company to all players involved in providing experience. Such chain management is based not only on the interests of big companies but also on local service providers. This, in
turn, leads to improvement of sustainability, saving local nature, culture, heritage, etc. (Ammirato et al. 2014)

Kim et al. (2011) mention four characteristics of a tourism product that differ it from other industry products. Firstly, tourism product is intangible, secondly – production and consumption of a product are homogeneous processes and cannot be detached. The third and fourth characteristic is that products are perishable and seasonal. Same characteristics differ tools, channels, and strategies utilized in various processes, such as marketing, of the tourism industry from other industries.

Industry-specific marketing tools and strategies explain industry-specific ways of gWOM effect impact and its utilization. Promotion of a tourist product in the marketing communications system is a set of measures aimed at the visualization of a tourist product and distribution of created visualization (participation in specialized exhibitions and fairs, organization of tourist information centers selling a tourist product, publishing catalogs, booklets, etc.) (Dearden & Harron 1992).

The main models for the promotion of the tourist product on the market in modern conditions are working with agencies; sales promotion; advertising; PR-action (Litvin 2008). The work with intermediaries (sales agents) pursues the following objectives: encouraging them to introduce new tourist services into the objects of their trading activities; achieving the highest coverage of the distribution system; minimizing the efforts of competitors to stimulate sales, the formation of commitment to the company from representatives of retailers.

The main goal of the sales policy of any enterprise, and of tourism, is to bring the product to the consumer in the most convenient form for him, in the shortest possible time and in an accessible place. Preparation and carrying out of actions for sales in the tourism industry is illustrated in Figure 2. The main challenge during all the steps remains that the services, being intangible, cannot be assessed before their implementation hence appear to be high-risk purchases and is related to trust issues (Kim et al. 2011). Therefore, any emotional factor contributing to purchasing decisions is at a high value in the industry. Hence, the biggest competitive advantage in the tourism industry can be gained from the correct utilization/management of gWOM to create extra emotional factor and a new dimension in product visualization. (Klimek 2013, Litvin 2008)
Although gWOM can be utilized for gaining competitive advantage, Litvin et al. (2008) provide evidence that the tourism industry is behind others in developing and discussing strategies for managing interpersonal connections in the electronic environment. More recent work by Litvin et al. (2018) complement achievements of the industry in the field. Nonetheless, it is remaining of high importance to be in front of the customer learning curve by utilization appearing know-hows.

![Diagram of the main stages of preparation and implementation of tourism product sales](image)

*Figure 2. The main stages of preparation and implementation of tourism product sales*

2.2.2. Tourism destination as a network

Definition and vision of tourism destination slightly vary based on the used approach. Nowadays, five different approaches are recognized: managerial, systems, network, economic and spatial. Main differences between them are defining borders and key components of a destination, as well as accepting destination as homogeneous or complex. Networking approach is seen as the new way of identifying a destination, and support towards it is increasing (Zemla 2016).

Current works, however, examine the impact of eWOM either to the whole destination or concrete business or to dimension/characteristic of the industry. Since a tourism destination is seen as an “amalgam of tourism products, offering an integrated experience to consumers” (Buhalıs, 2000) networking approach and eWOM impact on network shall be considered. Baggio et al. (2010) also support the network approach, by seeing the destination as “complex systems, represented as a network by enumerating the stakeholders composing it and the linkages that connect them”. In the previous work, Baggio et al. (2009) emphasize that managerial articles are focusing mostly on implementing eWOM either by individuals or by destinations and link with ecosystem or networks that forms a destination is missing (Baggio et al., 2009).
Utilization of other approaches in researches can be explained by the tourist viewpoint, where a destination is considered as a product (Klimek, 2013). However, the network is a vital part of the proper management of a destination, hence the tourism sector is considered as one with the most inter-organizational networks (Bickerdyke, 1996). Destination networks allow information and knowledge flow that influence growth, productivity, and innovation. Moreover, the structure of a network affects the speed of information distribution between parties, hence also their capabilities to develop themselves and destination in general (Argote & Ingram, 2000). Literature shows that networks are an essential channel for maintaining public-private relationships, understanding the model of tourism governance (Proff, 2002) and analyzing the evolution of business and product development (Tinsley and Lynch, 2001).

In any environment organization is free to decide whether it wants to join a network or not, however, companies forming a destination are the exception and are involved in a destination network by default. This, in turn, leads to a challenge that not all companies willing to participate in network development and networking activities. Such companies are free-riders who benefit from efforts of other network forming companies participating in the network development. (Zemla 2016). Since network development stands for destination development, the existence of freerides can slow down the development process or even turn as digression (Zemla 2016; Baggio 2006). Zemla (2016) says that tourists experience is gathered “from the ‘between’ of services of particular local companies, rather than directly from those services”, that means that if free-riders acting disorderly from a network, customer experience may suffer, hence affecting gWOM valence.

Based on all the network-based view of destination is appropriate to analyze the distribution of eWOM impact within a destination. The vitality of network and tight connection between destination forming companies shows that actions of one player from network do have an impact to other players and the network. Therefore, it is assumed that eWOM related to one player do have an impact to others and the network and it leads to the following hypothesis:

**H1a** eWOM related to a certain product or company from the network does have a spillover effect on customer attitude to the destination forming network (destination) in general

**H1b** eWOM related to a certain product or company from the network does have a spillover effect on same category competitors from the network
**H1c** eWOM related to a certain product or company from a network does have a spillover effect on the same category of the network in general

### 2.2.3 eWOM impact on tourism destination

The role of eWOM in the tourism industry is growing as more and more tourists are getting information and book services online. According to Eurostat (2016) in 2015 4 from 10 Europeans are looking for travel-related information on-line. Deaarden and Harron (1992) explain that the tourism destination life cycle is based on an acknowledgment of adventurous tourist who discovers new experiences (new destinations or product) and share thoughts with others, hence “diffusion and marketing momentum for new destinations” appears. From that follows that gWOM is the base of any touristic product.

Despite traditional WOM, eWOM “exists in online space which can be accessed, linked and searched”, that means that by an increasing number of tourists who search information on-line, eWOM will have even more crucial impact to their knowledge and perception (Litvin et al., 2008). eWOM becoming also a more popular object for recent studies as eWOM effect on the tourism sector can be determined easier than the effect of traditional WOM. Due to eWOM nature, data is available for researchers in the form of the online feedbacks and reviews and opportunity to track actions of online consumers. This allows furthering developing of researches on eWOM impact. (Jalilvand & Neda, 2012; Litvin et al., 2008; Albarq, 2014)

eWOM can have both, positive and negative consequences to the tourism industry-related components. Overview of exiting literature and cases from the industry shows that the power of the phenomena should not be underestimated since it can either boost destination or product as well as to end their existence. (Litvin et al. 2008). Interesting, is that gWOM generated by tourists and related to a destination may affect not only destination forming components, but also other industries related to the destination. As an example, O’Neill et al. (2002) prove that positive gWOM from vine tourists visiting Australia affected Australian wine sales back to their homes.

In the context of tourism, eWOM has a significant impact to the three dimensions: destination image, tourist attitude towards destination and travel intention (Jalilvand et
al. 2012). These, in turn, affect destination loyalty, an important indicator for building correct marketing campaigns and allocating finances (Rajesh, 2013). Influence of eWOM to all three dimensions, furthermore, can be divided into direct and indirect. Combination of frameworks by Jalilvand et al. (2012), Setiwan & Wibawa (2018) and Zarrand & Debai (2015) can explain the flow of eWOM impact between mentioned dimensions and is shown in Figure 3

![Figure 3](image.png)

*Figure 3. Distribution of direct and indirect eWOM impact towards main tourism industry dimensions*

As mentioned in the previous chapter, the tourism destination is untaggable product and visualization of it is an essential part of marketing. Visualization of a destination is connected to the image of destination; prior eWOM appearance, the most common and in many cases the only way for a tourist to build an image of the destination, in other words, visualization the product for himself, was commercial sources (adds, brochures, travel agencies). Low trust level towards commercial sources and high costs of traditional ways of advertisement was the main challenge in visualizing a product and convincing tourist to make a purchase. (Beerli & Martin 2004). eWOM appeared like a totally new source for a tourist to establish an image of a destination, hence radically changed the destination image message delivery channels in the industry. Videos and pictures, that can be generated by destination representatives and are considered as an advertisement, or by tourists and are eWOM, became main tools to create and share destination image. At the same time, content produced
by tourists, including their experience sharing, seems to have a bigger impact on destination image than commercial content, since the first one is found by customers as more accurate and showing pros and cons. (Buhalis & Law 2008). Setiwan & Wibawa (2018) proved that eWOM is positively associated with destination image; a greater amount of a positive eWOM leads to a better destination image.

Attitude towards a destination shows opinion regarding the destination and estimations of performing a behavior. More pleasant attitude leads to a stronger intention to implement the behavior. (Zarrand & Debai 2015). In contrast to the destination image that refers to how tourist sees a destination, attitude shows what does he thinks about a destination. Even while having a positive image, tourist may have a negative attitude towards a destination, therefore attitude has a more vital impact on intention than a destination image. (Zarrand & Debai 2015; Buhalis & Law 2008). Research, based on exploring eWOM impact to attitude towards Tunisia, shows that eWOM has a positively related and significant impact on potential/existing tourist attitude towards the destination (Zarrand & Debai 2015).

Travel intention – the willingness of potential tourist to visit a concrete destination, is one of the key elements in a customer buying decision. The intention is connected to alternative costs - assessment of costs occurring of not enjoying benefits of alternative. A destination image and attitude towards a destination are key elements when evaluating the costs of an alternative. Hence eWOM indirectly affects intention by affecting two other dimensions. (Setiwan & Wibawa 2018). The direct influence of eWOM on travel intention is seen in the impact on the level of uncertainty and the risk connected with purchasing focal tourism product in comparison with other tourism products. Such impact affects also the trust level towards a focal destination. (Abubakar 2016). Both, direct and indirect impact to intention found to be positively associated with eWOM (Setiwan & Wibawa 2018; Abubakar 2016).

Moreover, eWOM influenced tourist behavior that turned into significant changes in the industry (Ponte et al. 2015; Beerli & Martin 2004). Accessibility of eWOM and ICT increase the availability of information regarding various destinations, hence with the appearance of eWOM and ICT competition level within destinations in the global market increased (Buhalis & Law 2008).

Tourist buying behavior is seen as one of the notable changes in the industry. The rapid development of ICT and the increased importance of utilizing eWOM prior to a purchase
boosted customer presence in the online environment. This created a new opportunity on reaching potential customers thus online transactions within industry emerged. Online transactions in various sources are referred to online tourism, e-commerce within the tourism or online business, in other words, it is selling/ buying or consulting about services in the online environment. (Kim et al. 2011; Ponte et al. 2015). This is a radical influence and change to various aspects of tourism industries since service providers can sell products at any time, at any point to anyone. Moreover, online transactions decrease the gap between tourist and service providers, that leads to an increase in the co-creation process. (Ponte et al. 2015). The role of online transactions is already high in certain areas, for instance in the year 2018 78% of accommodation bookings and 83% of transportation tickets bookings by residents of Finland had been made online. The number includes both, domestic and international purchases (OFS 2019). Role of online tourism for businesses and tourism industry is expected to grow since the future development of ICT will lead to increased trust towards it and its components such us eWOM and online transactions. Moreover, the impact of gWOM on the selection of purchasing method (online or offline) also affect the growth of online sales share. (Ponte et al. 2015, Litvin et al. 2018) gWOM has an impact not only on tourist consuming decisions but also to gWOM that he or she will generate. gWOM contributes in forming tourist expectations from certain product or destination (that is related to the dimension of image and attitude), while expectations, in turn, affect his post-visit/ post-purchase emotions thus also his gWOM. Most vital gWOM impact to post-visit generated gWOM is in case of a big gap between expectation level and reality. (Diaz-Martin et al., 2000). Commonly managers face the case when positive gWOM leads to a high level of expectations, that cannot be met by a service provider and give rise to negative gWOM. On the second cycle, negative gWOM either moderate level of customer expectations that leads to positive gWOM or occurs as negative impacts to a business with fewer visitors and the following consequences. Since the risk of negative consequences exists, expectation management shall be implemented with the consideration of gWOM impact to tourist expectations. (Diaz-Martin et al., 2000, Litvin et al. 2008).

While having an influence on customer behavior and main dimensions as well as emerging changes in various aspects of the industry, eWOM is proved to be powerful and vital phenomena for the tourism sector. All above-mentioned impacts, in turn, lead to more visible consequences such as changes in profitability, number of visitors, facilities, prices, etc.
Utilization of eWOM in managing and marketing processes, in turn, emerge new strategies develops new products and the increasing role of tourism in decision-making processes at a destination. (Litvin et al. 2018; Jalilvand et al. 2012; Rajesh 2013; Ponte et al. 2015).

Despite proven facts on eWOM impact in the field of tourism, it must be noted that impact on different customer segments varies, hence correct segmentation and adoption of proper marketing tools for each segment is of high importance. Hernandez-Mendez et al. (2013) argue that eWOM impact varies on the groups segmented by age, gender and experience in using ICT for tourism-related information. Their results show that greater experience in using ICT leads to lower impact of eWOM on a user as well as the group of teenagers between 16-24 years tend to be less affected than the older ones. Also, data from wide research by Nielsen (2015), presented in chapter 2.1 of this work, shows that level of trust towards eWOM, that is connected to the power of eWOM, vary between different customer segments.

Above discussions lead to the following conclusion and hypothesis:

**H2.** Demographics of an individual (age, gender, experience in reading feedbacks) affects eWOM spillover appearance and distribution within destination forming network

According to evidence that proves the correlation between eWOM valence and impact to various dimensions, neutral eWOM shall have a neutral impact. However, when neutral eWOM is studied as separate phenomena or indicated as a separate group in research, some result differs from this assumption. Tang et al (2014) as one of the groups of neutral eWOM classify mixed neutral eWOM, that review both, positive and negative, sides of a product. They found out that such reviews have an impact on the sales when visible with other valence eWOM since a proportion of negative or positive feedbacks lead to the way how a customer will see mixed neutral reviews (either he will concentrate on the positive part of it or negative). Daughtery and Hoffman (2013) found out that neutral eWOM does have a connection to increased attention towards a focal object, however relatively small one if to compare with positive or negative eWOM. This two works, together with Buhalis & Law (2008) discussions about destination image and attitude dimensions, leads to conclusions that neutral eWOM may increase awareness of a product, that in case of the tourism industry is destination image, though there is no evidence that separate neutral eWOM would affect
attitude towards a product. This conclusion is an essential part of the empirical design of this work.

2.2.4. eWOM valence and tourist commitment

The message shared through eWOM can be negative or positive; negativeness or positiveness of the message is called valence. Previous chapters showed that valence of eWOM and gWOM have different impacts to a focal object. In addition, researches show that valence of a message is related to tourist commitment.

Gavilan et al. (2018) proved that the valence of eWOM affects the level of trust towards the eWOM. In their research on the impact of online reviews and ratings to a hotel selection, they studied the level of tourist trust to a review based on its valence as well as the number of same rating reviews. Results showed that reviews with lower ratings (more negative) have a higher level of trust than reviews with a higher rating (more positive). Moderation effect of the number of reviews seems to be asymmetric: in case of positive reviews level of trust is increasing with the number of such reviews, while in case of negative review the high level of trust to them is remaining same despite numbers of reviews.

Assumption of the fact that negative reviews have a higher level of trust, together with highlights of trust importance in the tourism industry (Kim et al. 2011), the following hypothesis is set:

**H3** Negative eWOM is more likely to generate stronger spillover effect than positive eWOM.

Explanation of diversity in the trust between positive and negative reviews can be found in work about decision making among choosing and rejecting by Sokolova & Krishna (2016). Authors explain that accepting or rejecting are totally different processes in terms of information processing and the evidence considered. During a rejection task, people tend to concentrate on negative aspects of the option, while during acceptance – on the positive aspects. However, when rejecting an option, people are less suspicious of the evidence that leads him to reject. Therefore, they are more likely to trust negative review than positive, as it is shown in Gavilan et al. (2018) work.
gWOM valence relation to a person willing to share it also is mentioned in several works. However, none of the found works provide reliable evidence to their conclusions regarding the connection between gWOM valence and sharing intention. As an example, Abubakar (2016), says that the majority of tourists leave reviews only if they are super unsatisfied or extremely happy with a service, however the author does not prove this statement with any shreds of evidence. Dimensional research (2013) found out that in the B2C segment 95% of customers talk about a bad experience with others while only 87% share a positive experience. However, this data cannot be significant evidence and moreover is related to WOM, therefore accurate conclusions regarding eWOM cannot be made. Therefore, future research on that is needed.

2.2.5 Travel-experience sharing behavior

Any consequences of eWOM occur only when and if eWOM is generated. The main reason why travelers share their viewpoint and experiences is the influence of social media. Vankatesh et al. (2002) define such influence as the extent of how much an individual believe that others want him to perform concrete action. Since the level of influence is based on personal beliefs, different personal norms, the impact of communities, and other factors, the level of social media influence to an individual will vary from person to person. Kelman (1958) described that wish to achieve personal goals set three dimensions of social influence: identification, internalization, and compliance. Identification is the process of adopting behaviors to fit a certain group or community and self-determination inside of that. Internalization is borrowing certain behaviors rewarded in a community and integrating them with own. While compliance is accepting behaviors with an expectation that they will bring a desired reaction from the community, that is seen as the fact that an individual is forced to perform an action because he assumes that community wants it. (Kang & Schuett 2013, Kelman 1958)

Perceived emotions – the level of enjoyment gathered from utilizing concrete technology, is a parameter that can be used to forecast and define behaviors in ICT. Evidence shows that identification and internalization dimensions affect perceived emotions, thus it can be said that social media have an impact to perceived emotions. This leads to understanding that social media can increase the level of perceived emotions from sharing travel experiences
and utilizing social media for planning trips, that in turn call to action. (Kang & Schuett 2013)

Kand & Schuett (2013) work emphasize the importance of social media for marketers in the tourism industry since it leads to the sharing of travel experiences as well as utilizing them by other users for planning their trips. Progress of social media influence can be determined by the ability to share experience in it as well as underattendance that social media is used for personally essential goals. If users don’t see travel experience sharing as the way of achieving own goals, user-generated content may not be performed. Despite that marketers may pursue user-generated content (eWOM), they cannot influence the quality and quantity of it. Moreover, the research shows that if experience sharing is led by compliance, such action can be disapproved by other users, thus efforts must be concentrated on indentation and internalization. Design and features of social media also do affect social media impact on travel experience sharing behavior. Jalilvand & Neda (2012) also emphasize the importance of building online travel communities and stimulating tourist’s participation in them, that is seen as the tool of generating and utilizing eWOM by companies from the industry.

2.3 Spillover Effect

Spillover is defined as “an effect of an intervention on subsequent behaviors not targeted by the intervention” (Truelove et al, 2014). The phenomena can be observed in various fields, and some of the fields are using other terms to refer the same phenomena, e.g. in medicine term rebound effect is in use while the term indirect effect can be seen across various fields. Despite that, the spillover effect is the most general term used by scholars. The phenomena can have both, positive and negative effects, and they can be visible not only in actual behaviors but also in policy supports. The positive spillover effect is, for instance, the fact that recycling leads to the use of reusable bags and avoiding excess packing. In turn example of negative spillover is a chance that pro-environmental behaving at home can lead to decreased motivation to behave in the same eco-friendly way while the individual is on vacation. (Truelove et al, 2014).

Positivity and negativity of spillover effects are based on a correlation only and not on their impact as the last can be evaluated differently by various sides. Hence, negative spillover
not always means negative effect and vice versa for positive spillover. For instance, a negative spillover effect on competitor related gWOM may be beneficial for the focal company. (Chae et al, 2016; Truelove et al, 2014)

2.3.1 Spillovers in the field of gWOM

gWOM spillovers are relatively new and recent phenomena in scientific literature, thus the topic is not well covered yet. Nonetheless, existing literature provides evidence of gWOM spillover existence. Additionally, gWOM spillovers are not conceptualized at this moment, hence in some researches, authors refer to non-direct gWOM effect, that in fact are equaling to spillover based on the general definition.

Chae et al. (2016) separate three gWOM spillover categories:

1) Focal product spillovers – non-direct gWOM effects on focal product only.
2) Brand spillovers. Occurs when focal product related gWOM non-directly affects other category products belonging to the focal product brand.
3) Category spillovers. As such are considered focal product gWOM non-direct effects on same category belonging competitor products.

Furthermore, Chae et al. (2016) name two subcategories for each above-mentioned division: within a segment and between segment spillovers. The segment is settled individually for each research hence may vary from work to work, for instance, geographical regions, customer segments, brands, distribution channels, etc. It must be noted that spillover effects not necessarily present in all segment, thus results (existence or absence) of the effect in a certain segment cannot be applied to other segments. Support for categorization of gWOM spillovers proposed by Chae et al. (2016) can be found also in existing literature, by observing spillover examples from each category.

As a focal product spillover example, Kozinets et al. (2010) prove that eWOM raised by certain participant segment may spill over into other segment or the whole population. In their example, eWOM created and discussed by a few expert bloggers spillover into topics discussed by all users of the forum. In other words, a positive spillover of eWOM is that under certain conditions it creates more eWOM about the focal product. Gatington et al. (2007) suggest that gWOM related to certain sales channel of a product can boost sales of
the product in other channels. Moreover, such spillover is visible not only between physical distribution channels but also between digital or between both types (Krijestorac et al., 2017).

Libai et al., (2009) present brand category spillover effect of market entry time. They show that first-mover advantage has positive spillover on a faster take off for other focal brand-related products. Also, brand extension positively spillover on focal brand product demand (Balachander and Ghose 2003). Both works mention communication, in other words, gWOM, as the reason for discovered spillover existence.

Focal, brand and category spillovers are discussed also in Chae et al, (2016) research of seeding marketing campaigns, that assume sending product testers to the customer with the aim to raise their awareness and stimulate gWOM. In this marketing tool following examples of spillover effect can be mentioned: increased awareness of product between individuals that did not receive tester; changes in gWOM amount about other products belonging to the same brand as well as about competitors providing analog products.

Berger and Schwartz (2011) say that while gWOM increase conversations about a focal object, an interest to a competitor may arise in such conversation, that is seen as a spillover effect. However, Chae et al (2016) findings are the opposite. Seeding strategy increases focal product-related WOM between seeded and non-seeded customers, at the same time decrease WOM about other focal brand-related products and same category competitors between the same individuals. Nonetheless, the mentioned research is focusing only on the amount of WOM and does not study changes in individual awareness and attitude towards competitors.

The connection between direct impact and spillover effect seems to be a complicated topic, and such connection may vary. Nonetheless, case examples by Kozinets et al. (2010) and Chae et al (2016 ) lead to the following assumption and hypothesis:

**H4.** eWOM spillovers affect tourist attitude to a lesser extent than the direct effect of the same eWOM.

2.3.2 Spillovers in the tourism industry

In the tourism industry topic of spillover effect is not new, however, spillovers of eWOM or gWOM in tourism segment seems to be not reviewed and only general theories can be
implemented. Based on the fields of study, current works explore the following categories of spillovers in the context of tourism: between destination spillovers, between industries spillovers and action/behavior spillovers affecting tourism.

Spillovers between destinations are the key topic related to the industry since such spillovers affect competitiveness and tourist distribution between destinations. It is suggested that in the modern economic model, the competitiveness of destination is not driven only by internal factors (such as location and development of destination) but mostly by external factors – other destinations, and this is seen as a spillover effect. Increased attention to a certain destination will spillover as a decrease to other destinations, while when the destination becomes overcrowded it will spill over to increased attention towards other, less crowded destinations offering similar facilities (Li and Wang 2009).

Among industries spillovers, is another type of effects related to tourism. Such works examine the effect of the tourism industry to other industries and the development of an area and vice versa. It is found that that tourism has positive spillover to the economy of an area and other industries via attracting investments and increasing level of employment. Benefits from direct and spillover impact to local economies differ, for instance in the case of Portugal, central areas benefit more from direct impact while north areas from the spillover effect. (Andraz et al. 2016). Other industries also have a spillover effect to tourism, as for example the transportation industry. Availability of the transportation services directly affects the tourism industry, since it participates in infrastructure formation. While the various factors that directly affect the transportation industry (e.g. oil price) or the characteristics of the industry (e.g. types of transportation machines in use) affect the tourism sector through spillover effect. (Truong & Shimizu 2017).

Action spillovers stand for an indirect effect to the industry or destination caused by any happening or behavior. For example, Neumayer & Plümper (2016) researched spillovers affecting tourism industry caused by ISIL terroristic attacks. They showed that negative spillovers are distributed in various directions: downturn of tourist amount visiting the attacked area, a downturn of tourist amount from attacked area visiting Islamic countries, 1 downturn of tourist amount from non-attacked areas visiting Islamic countries. Another such spillover example is the indirect effect of political violence in a country of destination, that negatively spillover to amount of tourist arrivals (Neumayer 2004).
2.4. Summary of hypotheses

Based on the existing theory, several hypotheses had been set in previous paragraphs and are summarized in Table 2 presented below. This hypothesis will be tested in the empirical part of this work. Testing hypotheses, in turn, will help to answer the main research question and provide evidence to support the answer.

**H1a.** eWOM related to a certain product or company from the network does have a spillover effect on customer attitude to the destination forming network (destination) in general

**H1b.** eWOM related to a certain product or company from the network does have a spillover effect on same category competitors from the network

**H1c.** eWOM related to a certain product or company from a network does have a spillover effect on the same service level

**H2.** Demographics of an individual (age, gender, experience in reading feedbacks) affects eWOM spillover appearance and distribution within destination forming network

**H3.** Negative eWOM is more likely to generate a strong spillover effect than positive eWOM.

**H4.** eWOM spillovers affect tourist attitude towards a non-focal object to a lesser extent than the direct effect of the same eWOM to a focal company.

Table 2. Summary of hypotheses

Figure 4, in turn, shows a combination of settled hypotheses and theoretical framework presented before. This figure represents the concept of the work by visualizing the main parts of research and existing theories and is based on the theoretical framework presented in the introduction chapter.
Figure 4. Framework with hypotheses
3 RESEARCH DESIGN AND METHODS

For testing the hypotheses and answering questions the empirical part was conducted. Following paragraphs are dedicated to the empirical part of this work. Firstly, the case destination is presented, followed by justifying the selection of research methods. Information on conducted pre-test as well as data analyses and data validity are closing this chapter.

3.1 Case description

This research is conducted on the base of Ruka-Kuusamo as the tourism destination. Purpose to connect research with the destination is explained in the following parts of this work. Ruka-Kuusamo, ref. also as Ruka, had been chosen since this resort emphasizes networking approach and is built around the collaboration between local companies. This paragraph provides brief information about the destination. The description is based on Ruka web page (2019) as well as the author personal experience and familiarity with the destination gathered from working in the local DMC.

Ruka-Kuusamo is the year-round tourism destination, however, since it is built around Ruka ski resort, the center of the destination, it is visited mostly in the winter season. In additional to skiing facilities, the resort attracts customer with its nature and various activities organized by safari companies. Snowy winter and location on the border of Lapland also are features that attract tourists. Various festivals and sports events such as Ruka Nordic, Nuts Karhunkierros and various ski and snowboard world cup stages also increase the attraction of the destination.

This destination utilizes the network approach and emphasizes the importance of managing the destination as the network. One of the purposes is that most companies forming the destination are family-owned, and networking is seen as crucial for sharing information and knowledge. To manage destination as the network, in the year 2002 Ruka-Kuusamo travel association had been establishing. The association coordinate marketing activities and develops new partnerships as well as organize meetings and educational events with the purpose to create and share knowledge and information within the network. The association is formed by local companies from the tourism industry and the town council.
Facilities forming destination consist of restaurants, hotels, safari companies, and other experience providers, shops, local transportation service providers and DMC’s. The last ones also have a big role in the network formation and management via building inter-destination cooperation and representing destination on the international market. The destination includes 60 restaurants, 4 DMC’s, 40 safari or other experience providers, golf club, ski center, 8 hotels, and more than 6900 cottages and apartments represented directly or via resellers, 4 nightclubs, 3 tourism information, and visitor centers, etc. Transportation around destination is organized via ski and shuttle buses, gondola and taxis. The resort can be reached by plane, busses or cars. Majority of facilities are in and around Ruka center. The airport is next to Kuusamo town and is seen as a part of destination forming facilities.

Majority of tourists are domestic (74%) when other 26% mostly represent European countries. Last ones mostly come from Russia, Spain, France, Netherlands, UK, Germany, and Switzerland (based on data from 2018). Tourism sector formed by destination employs 716 persons (representing 7.8% work age population of the area) and generates income of 142,1 million EUR (based on data from 2017).

3.2 Research design

Research design is determined by research questions and aim. This research is aimed to find out relationships between variables, hence quantitative method is supported (Drummond and Murphy 2018). An experiment is believed to be the most appropriate way if research includes intervention. As such, it can be testing various groups that are independent variables. (Drummond and Murphy 2018). Experiment strategy is supported also by Sanders et al. (2009) as the tool for discovering causal relationships between independent and dependent variables. The key element in this design is the existence of at least two groups where the independent variable is manipulated and differs between groups (e.g. they see a different advertisement or receive different medication). Also, it is important that participants are assigned to the groups in random order. (Drummond and Murphy 2018; Sanders et al. 2009).

The experiment in this work utilizes existing reviews of services in Ruka published at TripAdvisor. Author reputation, number of likes, possible replies, and name of the company that received feedback were not disclosed. Moreover, to avoid direct impact on non-focal variables reviews been selected under the criteria that they would not compare services or
include a general opinion about Ruka as the destination. Three categories of reviews (representing eWOM) been selected for this study: positive, negative and neutral. Since the same review may be seen differently by various people, a control question that asked respondents to evaluate eWOM had been included.

Software that was used for data collection, was set to randomly and equally distribute respondents between three groups. Control group received the questionnaire with the review that is assumed to be neutral. Experimental group A received the form with the positive review, while experimental group B- with the negative review. The screenshot of the review included in the questionnaire was the only visible difference between the three survey forms used in this research.

The experiment in this work is based on conclusions of paragraph 2.2.3, that neutral eWOM, presented separately from other reviews, do not lead to changes in tourist attitude to a destination or its components, and is not expected to generate attitude affecting spillovers. This, in turn, will allow comparing results of other groups where positive or negative eWOM is expected to spillover as a change in attitude to non-focal objects.

3.3 Datta collection methods

The data had been collected using a self-administrated internet-mediated questionnaire. This method is appropriate when an experiment is chosen as design and allows to explore relations between variables also in the cases when one or some of them are manipulated. Distribution of survey via e-mail allows being confident that the right people belonging to the target will be reached at the same time allowing to reach a larger number of respondents. Since the research is aimed to discover whether the phenomena exist and not how it changes, the cross-sectional time horizon is selected. (Sanders et al. 2009).

As the target group for this research been selected tourists who visited Ruka during the years 2017-2019. Such target has been selected since the group is familiar with the infrastructure of Ruka and could evaluate potential changes in their decision and attitude more precisely than persons not familiar with the resort. Moreover, there is a chance that part of the group could rely on their existing experience and not only estimate potential changes. The survey in online link form had been distributed to them via travel agencies and tour operators in
charge of their visit to the resort. Companies from Finland, Germany, Switzerland, Spain, France, UK, Russia and Netherlands had been involved in survey distribution, representing the biggest origin countries of tourists visiting Ruka (OSF 2019). The link for the questionnaire was open for a month during June-July 2019, since, according to Sanders et al. (2009), the suggested period of data collection via survey is between 2 to 6 weeks.

Qualtrics software was used for creating and handling the survey. The software was selected since it allowed to randomly distribute three survey forms via one link and collect the approximately equal amount of response for each form. The survey ( appendix 1 ) included list type, category type, and matrix type question. 7-point Likert scale had been used to evaluate changes in the respondent attitude. Structure of the developed surveys and used measurements scales are shown in Table 3. Originally survey had been created in English, however after pre-test stage translated also to Russian, French, and Spanish. The translation had been made by native speakers with fluent English, and lexical, experimental and idiomatic meaning had been discussed with the ones who conducted translation hence implementing translation suggestions by Sanders et al. (2009). At the last step of the data collection process gathered data were exported from the software in the excel format for future analyzes.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Characteristics</th>
<th>Explanation</th>
<th>Measurement scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Introduction text</td>
<td>The section that welcomes the respondent to the survey</td>
<td>-</td>
</tr>
<tr>
<td>Demographics</td>
<td>Q1,2 4</td>
<td>Collects information on the demographics of the respondent (age, gender, and experience of eWOM utilization prior visit)</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>Control segment.</td>
<td>Q 3</td>
<td>Checks whether respondent belong to the target group</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>eWOM message</td>
<td>Screenshot of review</td>
<td>Randomly distribute respondents between three groups by showing either positive or negative or neutral review</td>
<td>-</td>
</tr>
<tr>
<td>eWOM message valence control</td>
<td>Q4</td>
<td>Checks whether the respondent evaluates the valence of the review in the same way as it was assumed to be</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>Changes in attitude</td>
<td>Q5 (4 items)</td>
<td>Evaluate respondent attitude changes towards the objects after reading the review.</td>
<td>Likert scale 7 (Strongly negative –Strongly changes)</td>
</tr>
<tr>
<td>Closure</td>
<td>Gratitude text</td>
<td>Express gratitude for taking the part in the survey and ends the survey</td>
<td>-</td>
</tr>
</tbody>
</table>

*Table 3. Structure of the survey*
To be able to see the response rate, survey distributors had been asked to track the number of invitations they sent. During full test and pre-test, 1679 invitations had been sent, while the amount of received answers is 680, hence the response rate is 39.1% and is classified as the accepted for the selected method (Sanders et al. 2009).

In total during the main test and pre-test (both, face to face and online), 689 answers been collected. Since the data collection process been held during July, common month for vocation, the response rate was lower than it could be. The fact that survey distributors sent one invitation per party/family and that most of the domestic (Finnish) tourists do not use travel agency services and could not be reached also affected the total amount of participants. Moreover, most of the big tour operators refused to participate in questionnaire distribution due to inside regulations or other reasons.

3.4 Research pre-testing

A pre-test of research is the important stage that allows minimizing the risk of errors and failure of the full research. The whole process of pre-testing of quantitative research can be divided into two main steps: analyzing the questions before launching a questionnaire and testing data collection on a small part of the research sample. Question analyze part include various steps that help to check if selected questions are appropriate for the research and will be correctly understood by different categories of respondents. Testing the process, in some sources also called as piloting allows to analyze how respondents feel about selected questions and methods. Based on the results of pre-testing stage, conclusions regarding question validity, reliability, and sensitivity, as well as needed corrections in the questionnaire or even change of chosen method, can be done before launching full-scale research. (Nixon et al. 2002, Czaja 1998).

Pre-test of this research was conducted by adopting steps suggested in Nixon et al. (2002) work. At the first stage questions been reviewed from the perspective of different respondents, meaningfulness, clarity, and sensitivity. Secondly, the reaction of respondents been analyzed and their feedback regarding questionnaire been collected. For this purpose, questionnaires in the paper form been distributed for tourists on the spot in June 2019. After filling in the questionnaire, they have been asked to provide face-to-face feedback regarding
the questionnaire. Supporting questions had been asked if needed with the aim to collect meaningful reviews.

9 questionnaires (three of each group) and feedback sessions had been done. Respondents positively evaluated the selection of the questions and the form of the survey; however, it was noted that respondents from Russia, Spain, and Japan had difficulties to understand some or most of the questions because of the language barrier. From the experience of local guides, it was noted that tourists from China and France also may have difficulties in understanding English. As a result, to avoid possible problems of the language barrier in the full-scale research, questionnaires been translated to Russian, French and Spanish languages. Japan and China had been excluded from the sample since questionnaires could not be translated due to the lack of language skills and needed resources while the risk of the language barrier is high, however, it should not affect results as both countries represent the minority of tourists in Ruka (OSF, 2019).

Following, the work of data collecting software and questionnaire distribution channels been tested. For this purpose, three small travel agencies located in the UK, Spain and Russian been asked to distribute the link to the questionnaires (included translated ones) between tourists visited Ruka. As a result, 25 (8 of group A, 8 group b and 9 control group) answers been gathered and reviewed. No problems had been noted at this stage, hence the selection of software and distribution of questionnaire via travel agencies been confirmed.

Since the experiment is based on the manipulation, that assumes to examine changes in attitude based on eWOM valence, at the last stage, it was important to see whether manipulation worked as planned. To see it the one way ANOVA test had been made, where eWOM valence worked as the independent variable while changes of attitude towards categories as the dependent. As seen from results (Table 4), there is a significant difference in results between tested groups, since p<0.05. That shows that chosen manipulation worked well, and there is a significant difference in changes of attitude based on eWOM valence. Nonetheless, the small sample size utilized in the pre-test does not allow to generalize this conclusion and only allows to reduce the risk of full research failure. Based on all, pre-test showed that all experiment settings work well, and the full research can be launched.
<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude change towards</td>
<td>4,168</td>
<td>2</td>
<td>2,084</td>
<td>4,868</td>
<td><strong>0.015</strong></td>
</tr>
<tr>
<td>competitors Between</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude change towards</td>
<td>36,214</td>
<td>2</td>
<td>18,107</td>
<td>44,103</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>services Between</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude change towards</td>
<td>58,393</td>
<td>2</td>
<td>29,197</td>
<td>93,925</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>destination Between Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 4. ANOVA test results for piloting stage data*

### 3.5 Data analysis

Collected data had been recorded in numerical form, where numbers represented different answer groups and stored in excel form. Data from the both, pre-test and test stages, had been used in analyses since the survey was not changed between the stages as well as in all phases the respondents had been randomly assigned to the groups. Since the survey included “hard to answer” option, special code was implemented to record these cases. This, in turn, allowed to exclude this answer when conducting analyzes without impact to the outcomes. Settings of software for data collection automatically ended surveys if the respondent answered that he didn’t visit Ruka. This forms where neither assigned to any of groups neither included in data set, therefore further control whether data belongs or not to the targeted sample was not needed.

The SPSS statistics v.17.0 software had been used to data analyses. This software allows conducting most statistical tests accepted in researcher society. Moreover, this software is a popular tool for conducting various analyzes, hence literature and tutorials on the usage of the program are widely available. Utilization of the older version of the software is explained by the limitation of available hardware. However, the version of the software does not affect the analyses and only limits certain futures that are not needed in this research.

All collected data had been recorded into one data set and main tests had been done based on all data. However, for some descriptive tables and exclusions, data only of one or two groups had been analyzed by applying data sorting filters based on the group from which record came from.
The guide book by Smith (2018) had been used to understand the meaning of statistical tests as well as to read statistical tables generated by SPSS. Suggested alpha levels used in the calculation in the result section are also based on this book. Moreover, interpretation of different coefficients, such as correlation level ($r$) or significance coefficient ($p$), used in this research are based on Smith (2018) description. Several types of research that include $p$ or $r$ coefficients and observed in the theoretical part of this work also used equal to Smith (2018) standards to make judgments (e.g. Setiwan & Wibawa, 2018).

3.6 Reliability and validity

The credibility of research is determined by its validity and reliability. According to Sanders et al. (2009), the only way how to improve this parameter is to reduce the chance of getting wrong results, hence research design matters. The validity of findings refers to whether the collected data will provide correct answers and is related to the question of whether there is a casual relationship between set variables. Validity is affected by treats – set of factors that may influence outcomes, e.g. recall of a product from the market may lead to temporary changes in customer assumptions, and their answer will not represent general attitude but only the current situation. Part of external validity is generalizability – whether the results can be applied to the whole population or not, and are connected to the data used in research, e.g. is a sample big enough and represent the population well.

Reliability, in turn, stands for whether the data is received and analyzed in a transparent way as well whether other researches will show the same results. Reliability can be affected by errors and biases of both parties – research object/participants and researcher/observer. The data collection method is a crucial step in limiting the chances of error and biases. In terms of the survey, as a data collection method, reliability stands for whether the same questionnaire will be understood in a similar way and provide the same results under various conditions such as different samples of the same population. (Sanders et al. 2009).

In this work reliability and validity is insured through the transparent and accurate description and justification of all actions taken, starting from the selection of design and methods, and finishing with data analyses and outcome interpretation. Pre-testing and piloting allowed to minimize the risk that questions would not be correctly understood by respondents and to check whether gathered data indeed represents what is assumed to.
Careful data transfer and analyses using various tests accepted by researches allow limiting post data collection errors.

Though, the outcomes from this work may not be valid and reliable under certain conditions. Since the studied phenomena – eWOM, may appear in various forms result of this work, where eWOM been presented in form of review on TripAdvisor, not necessary will match will result of a work utilizing eWOM in any other form. Also, according to Sandels et al. (2009), the disadvantage of an experiment as a research design is the problem of assuring external validity since the experiment is conducted in a so-called laboratory environment that differs from the real world. Therefore, several limitations are set and explained in the following chapters.
4 RESULTS

The results of this research are presented in this chapter. Firstly, statistical data and analyses are presented to provide a general overview and prove significance. Following that, hypotheses, that had been set based on the theoretical part, are tested based on collected data. The last paragraph sums up the results and shows whether hypotheses been confirmed or rejected.

4.1 DESCRIPTIVE STATISTICS

Descriptive statistics is the way of providing information about variables and describe the current situation. However, such data don’t examine the probability that the same results will occur again, hence is not appropriate for testing hypotheses. (Drummond and Murphy 2018). Following part provide a statistical overview of results dependently on the experimental group of this research. Future tests and analyses to test the hypotheses will be implemented in the next paragraphs.

![Figure 5. Estimation of respondent changes in attitude after reading eWOM related to a focal company](image)

The data, combined into Figure 5 shows that both experimental groups estimated that after reading positive or negative feedback about the focal company, their attitude will change not...
only towards the focal company but will spillover into changes of attitude towards other components of the network and the network in general. Neutral eWOM, as expected, do not lead to significant changes in attitude.

Furthermore, descriptive statistic tools had been applied to provide a general overview of three groups participated in the research. Since the participants had been distributed between groups randomly, such overview allows to compare groups and understand how well they represent population. (Drummond and Murphy 2018).

**Experimental group A**

This group estimated changes in their attitude after reading positive eWOM. Majority of respondents was women, and the most common age of all respondents was between 36-45. However, all gender groups and all age groups, except 17y.o and younger were represented. Descriptive statistics show that a significant part of respondents estimate that positive eWOM would positively affect their attitude not only towards the focal company but also to other components. Table 5 shows more details of the experimental group A.

<table>
<thead>
<tr>
<th>age</th>
<th>gender</th>
<th>reading feedback</th>
<th>positive to focal</th>
<th>positive to competitor</th>
<th>positive to services</th>
<th>positive to destination</th>
<th>eWOM valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Mean</td>
<td>3.30</td>
<td>1.20</td>
<td>1.78</td>
<td>1.90</td>
<td>1.67</td>
<td>1.53</td>
<td>1.84</td>
</tr>
<tr>
<td>Median</td>
<td>3.00</td>
<td>1.00</td>
<td>2.00</td>
<td>2.00</td>
<td>1.00</td>
<td>1.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.475</td>
<td>0.501</td>
<td>0.414</td>
<td>0.741</td>
<td>0.662</td>
<td>0.749</td>
<td>0.694</td>
</tr>
<tr>
<td>Variance</td>
<td>2.177</td>
<td>0.251</td>
<td>0.172</td>
<td>0.550</td>
<td>0.438</td>
<td>0.560</td>
<td>0.482</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

*Table 5. A descriptive overview of experimental group A*
Experimental group B

The second experimental group, in turn, received the survey with negative review screenshot. Same as in the previous group, the majority of respondents was females and the biggest age group was between 36-45 y.o. Also, in this group all genders and age groups, besides 0-17 y.o are presented. This group result shows that negative eWOM also is likely to have a spillover effect. More details of this group are seen in Table 6

<table>
<thead>
<tr>
<th></th>
<th>age</th>
<th>gender</th>
<th>reading feedback</th>
<th>negative to focal</th>
<th>negative to competitor</th>
<th>negative to services</th>
<th>negative to destination</th>
<th>eWOM Valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
</tr>
<tr>
<td>Mean</td>
<td>3.27</td>
<td>1.36</td>
<td>1.70</td>
<td>-2.04</td>
<td>0.07</td>
<td>-0.92</td>
<td>-0.65</td>
<td>2</td>
</tr>
<tr>
<td>Median</td>
<td>3</td>
<td>2</td>
<td>-2</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.434</td>
<td>.498</td>
<td>.458</td>
<td>.709</td>
<td>.537</td>
<td>.544</td>
<td>.669</td>
<td>.000000</td>
</tr>
<tr>
<td>Variance</td>
<td>2,056</td>
<td>.248</td>
<td>.210</td>
<td>.503</td>
<td>.288</td>
<td>.296</td>
<td>.448</td>
<td>.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td>-3</td>
<td>-1</td>
<td>-2</td>
<td>-2</td>
<td>2</td>
<td>2.00</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

Table 6. A descriptive overview of experimental group B

Control group

As the control group was set the group received a neutral review in their questionnaire. The biggest part of respondents were females and biggest presented age group 46-55 y.o. Same as in other groups, all genders, and ages, except 0-17 y.o are presented. As it was expected, based on theoretical findings, neutral eWOM didn’t affect tourist attitude. Table 7 presents additional details of the group.

To sum up, an overview of all three groups show that the random distribution of participants went well. All groups are same-sized, with + 1 participant, including same-age and gender groups, and approximately similar distribution of participants based on control variables. Thus, the risk of errors due to contrast dissimilarities in groups is avoided. However, none of the participants in all groups represents 0-17 years old age group, and it must be noted in the limitations of this work.
Table 7. A descriptive overview of the control group

<table>
<thead>
<tr>
<th></th>
<th>age</th>
<th>gender</th>
<th>reading feedback</th>
<th>neutral to focal</th>
<th>neutral to competitor</th>
<th>neutral to service level</th>
<th>neutral to resort</th>
<th>eWOM valence</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Valid</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Mean</td>
<td>3.42</td>
<td>1.33</td>
<td>1.68</td>
<td>-0.03</td>
<td>0.03</td>
<td>0.00</td>
<td>0.01</td>
<td>3.00</td>
</tr>
<tr>
<td>Median</td>
<td>4.00</td>
<td>1.00</td>
<td>2.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.182</td>
<td>0.470</td>
<td>0.468</td>
<td>0.286</td>
<td>0.160</td>
<td>0.162</td>
<td>0.162</td>
<td>0.000</td>
</tr>
<tr>
<td>Variance</td>
<td>1.397</td>
<td>0.221</td>
<td>0.219</td>
<td>0.082</td>
<td>0.026</td>
<td>0.026</td>
<td>0.026</td>
<td>0.000</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-1</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
<td>3</td>
</tr>
<tr>
<td>Maximum</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

4.2 ANOVA test

The experiment is based on assumption, that different eWOM valence will lead to different changes in tourist attitude to components of the destination network. The descriptive statistic shows that such a difference exists, however, do not prove that difference is significant. Therefore, the one way ANOVA test had been made. This test allows seeing whether the outcomes of the experiment are significant.

ANOVA test allows comparing means of 3 or more populations. Three between-subject factors had been used in analyses, as such these factors were the independent variables - valence of eWOM: positive, negative and neutral. The test was implemented for 4 questions related to the estimation of changes in tourist attitude, representing dependent variables. The results of the analyses are shown in Table 8. The most important result of the test is the p-value (Sig. column) since it shows whether there is a significant statistical difference between means of the groups. In application to the collected and tested data, the p-value for all cases is below 0.001, hence it can be concluded that there is a significant difference between selected groups. (Smith 2008).
Table 8. ANOVA test results

Nonetheless, the ANOVA test does not indicate within which groups exist the difference. Moreover, overlapping alpha values in ANOVA may lead to type I error. Therefore, it is recommended to conduct a posthoc test if ANOVA test proved the existence of the significant difference. A posthoc test allows not only to determinate exact variables between which difference exist but also to reduce risk of type I error. (Weissgerber et al. 2018). In this work Tukey tests work as posthoc tests and results are seen in Table 1, α equal to 0.05 was used in the calculations. As is seen in results, almost all groups show significant difference with p<0.001, except the difference between negative and positive eWOM, related to a focal company, effect on changes in attitude towards competitors. Despite that, there are enough significant differences to test hypotheses.
<table>
<thead>
<tr>
<th></th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
<th>positive eWOM</th>
<th>negative eWOM</th>
<th>neutral eWOM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attitude changes</strong></td>
<td><strong>towards</strong></td>
<td><strong>competitors</strong></td>
<td></td>
<td><strong>towards</strong></td>
<td><strong>services</strong></td>
<td></td>
<td><strong>towards</strong></td>
<td><strong>destination</strong></td>
<td></td>
<td><strong>towards</strong></td>
<td><strong>services</strong></td>
<td></td>
<td><strong>towards</strong></td>
<td><strong>destination</strong></td>
<td></td>
<td><strong>towards</strong></td>
<td><strong>services</strong></td>
<td></td>
</tr>
<tr>
<td>positive eWOM</td>
<td>-1.913*</td>
<td>2.009*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>negative eWOM</td>
<td></td>
<td></td>
<td></td>
<td>-2.05</td>
<td>-1.78</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Table 9. Tukey test results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.3 Testing hypothesis

After confirming that the gathered data is significant, and the experimental manipulation worked well the hypotheses will be tested in this paragraph. Hypotheses of the work are divided into two groups: related to the existence of spillovers and factors that affect spillover distribution. In the following part, each hypothesis is tested separately.

**H1a** *eWOM related to a certain product or company from the network does have a spillover effect on customer attitude to the destination forming network (destination) in general*

To test this hypothesis, linear regression between eWOM valence and changes in attitude towards the destination as well as the mean comparison between changes of attitude toward the destination based on the review valence had been conducted. The lineal regression result Table 10 proves the significance and show the high level of correlation between the dependent and independent variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>0.393</td>
<td>.024</td>
<td></td>
<td>16.555</td>
</tr>
<tr>
<td>valence</td>
<td>1.237</td>
<td>.029</td>
<td>.851</td>
<td>42.521</td>
</tr>
</tbody>
</table>

*Table 10. Linear regression for H1a*

When looking on the means of attitude changes towards destination between groups that saw differently valent eWOM related to a focal company from the same destination, we can clearly see that there is the impact on attitude change. Positive eWOM mean 1.82 is close to indicator “moderately positive effect” while negative eWOM mean -0.65 is closer to a “slightly negative effect”. Since the reviews visible for respondents were dedicated to a focal company, without including information about the destination, we can assume that such review, working as eWOM should not have a direct effect on destination. As the results provide evidence that despite not being dedicated to the destination, eWOM still has an impact on attitude towards the destination, it is concluded that hypothesis H1a is correct and can be confirmed. This work utilizes the network-based destination view approach; hence term destination is equal to destination forming network.
Mean compression, together with positive and big correlation coefficient (R=0.851), allows concluding that focal eWOM valence has a positively related and significant impact on spillover that affects customer attitude towards the destination. That means that positive eWOM has positive spillover, while negative eWOM – negative spillover. As discussed in chapter 2.3, the valence of spillover is mathematical only, since positiveness of spillover impact may be seen differently by various parties.

In addition, Table 11 shows that positive eWOM tend to have bigger spillover effect than negative. Moreover, spillovers of positive eWOM occurred much often than negative eWOM: only in 6.5% cases positive eWOM had a neutral effect on attitude while negative in 45.8%.

<table>
<thead>
<tr>
<th>valence</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Grouped Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>positive eWOM</td>
<td>1.82</td>
<td>230</td>
<td>.686</td>
<td>1.87</td>
</tr>
<tr>
<td>negative eWOM</td>
<td>-.65</td>
<td>229</td>
<td>.669</td>
<td>-.61</td>
</tr>
<tr>
<td>neutral eWOM</td>
<td>.01</td>
<td>230</td>
<td>.162</td>
<td>.01</td>
</tr>
<tr>
<td>Total</td>
<td>.39</td>
<td>689</td>
<td>1.187</td>
<td>.24</td>
</tr>
</tbody>
</table>

Table 11. Mean table for H1a

**H1b** eWOM related to a certain product or company from the network does have a spillover effect on same category competitors from the network

After comparing means (Table 12) of changes in attitude towards competitors from the same network with the focal object based on the valence of the focal eWOM groups, it seems that regression tends to be curved. Observation of linear and quadratic regressions (Table 13) between focal eWOM valence and attitude towards competitor shows that curved regression fits better with r²=0.25, that is higher than linear r²=0.172. This is also visible from regression lines between changes in attitude towards competitor and message valence presented in Figure 6. However, both r² are not high enough to make conclusions, moreover, Tukey test results in the previous paragraph (Table 9) shows that statistical difference between experimental group B (negative eWOM) and control group (neutral eWOM) is not significant since p=0.55. Based on that, the conclusion regarding the type of regression cannot be made. It can be only assumed that regression could be U shaped.
Screenshotted feedbacks used in the survey didn’t include information about services provided by competitors and didn’t compare product/ experience between different companies, hence should not have a direct impact to competitors. Nonetheless, the mean ratio shows that positive feedback given to a focal company, positively affected tourist attitude towards competitors offering the same services in the same destination. This, in turn, shows the existence of spillover in relation to competitors of a focal company. The mean of positive focal eWOM spillover effect to customer attitude towards competitors from the same network is 0.65, that on the used scale is closer to “slightly positive affect” and spillover occurred in 55.6% cases.

<table>
<thead>
<tr>
<th>valence</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Grouped Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative eWOM</td>
<td>0.07</td>
<td>229</td>
<td>0.537</td>
<td>0.08</td>
</tr>
<tr>
<td>neutral eWOM</td>
<td>0.03</td>
<td>230</td>
<td>0.160</td>
<td>0.03</td>
</tr>
<tr>
<td>positive eWOM</td>
<td>0.65</td>
<td>230</td>
<td>0.648</td>
<td>0.62</td>
</tr>
<tr>
<td>Total</td>
<td>0.25</td>
<td>689</td>
<td>0.570</td>
<td>0.24</td>
</tr>
</tbody>
</table>

*Table 12. Mean table for H1b*

Yet, the hypothesis can be only partly confirmed, since there is no significant evidence to make conclusions whether negative eWOM regarding a focal company have a spillover effect on attitude towards competitors. Therefore, it is concluded that only positive eWOM of a focal company has positively related spillover that affects population attitude towards competitors operating in the same network as a focal company.

<table>
<thead>
<tr>
<th>Equation</th>
<th>Model Summary</th>
<th>Parameter Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R Square</td>
<td>F</td>
</tr>
<tr>
<td>Quadratic</td>
<td>.250</td>
<td>114,104</td>
</tr>
<tr>
<td>Linear</td>
<td>.172</td>
<td>142,44</td>
</tr>
</tbody>
</table>

*Table 13. Quadratic and linear regression for H1B*
Figure 6. Regression lines for H1b

**H1c eWOM related to a certain product or company from a network does have a spillover effect on the same service level**

Following hypothesis also was tested by conducting the mean rate table and linear regression. Results of the linear regression between changes of attitude towards services (dependent variable) and eWOM valence (independent variable) are presented in Table 14. In this case, regression also proves the significance and show the high level of correlation between the dependent and independent variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>0.196</td>
<td>0.021</td>
<td></td>
<td>9.259</td>
</tr>
<tr>
<td>valence</td>
<td>1.215</td>
<td>0.026</td>
<td>0.873</td>
<td>46.949</td>
</tr>
</tbody>
</table>

Table 14. Linear regression for H1c
As seen from the mean rate Table 15 the mean of positive eWOM about focal company effect on attitude to service level, in general, is 1.51, that on the used scale is between slightly positive and moderately positive affect. In turn, the negative eWOM related to a focal company the mean of impact on attitude towards service level in general is -0.92, that is close to a slightly negative change of attitude. Control group didn’t show any changes in attitude after reading neutral eWOM.

Since the reviews in surveys had been related to a focal company and their services, without including information about experiences in general or compression with other companies same as neither generalization of service level on the resort, they were not expected to directly affect dependent variable of attitude towards service level. As the evidence shows that such an effect had the place, we can see that eWOM related to a focal company had the spillover effect. This leads to the conclusion that the hypothesis is correct and confirmed.

Moreover, results show that the spillover is positively related and significantly affected by the valence of eWOM. Thus, positive eWOM regarding a focal company will have a positive spillover effect on tourist attitude to services at the same resort, while negative eWOM-negative spillover.

<table>
<thead>
<tr>
<th>valence</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Grouped Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative eWOM</td>
<td>-0.92</td>
<td>229</td>
<td>0.544</td>
<td>-0.91</td>
</tr>
<tr>
<td>neutral eWOM</td>
<td>0.00</td>
<td>230</td>
<td>0.162</td>
<td>0.00</td>
</tr>
<tr>
<td>positive eWOM</td>
<td>1.51</td>
<td>230</td>
<td>0.734</td>
<td>1.50</td>
</tr>
<tr>
<td>Total</td>
<td>0.20</td>
<td>689</td>
<td>1.137</td>
<td>0.07</td>
</tr>
</tbody>
</table>

*Table 15. Mean table for H1C*

**H2. Demographics of an individual (age, gender, experience in reading feedbacks) affects eWOM spillover appearance and distribution within destination forming network**

To see, whether any of the demographic variables included in the survey form affects spillover effect, one-way ANOVA test had been made. The test shows if there is any significant difference in changes of attitude towards the object dependently on the demographic variable that in this case works as the independent one. The test had been used since the age variable was categorized in more than 2 groups. In case of gender and whether
tourist read any review before traveling, where variables are categorized into 2 groups, ANOVA works same as T-test. Negative eWOM spillover to competitors was not included into test since previously existence of such was not proven.

From Table 16 is seen that age and reading feedbacks before visit didn’t scientifically affect spillover distribution since p level is more than 0,05. When testing differences in measured attitude change by gender groups, a significant difference is observed in several cases. Therefore, this category had been discovered more closely by making mean comparison table.

<table>
<thead>
<tr>
<th>spillover</th>
<th>Sig. / age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive to competitor</td>
<td>0,162</td>
</tr>
<tr>
<td>Positive to services</td>
<td>0,586</td>
</tr>
<tr>
<td>Positive to destination</td>
<td>0,543</td>
</tr>
<tr>
<td>Negative to destination</td>
<td>0,756</td>
</tr>
<tr>
<td>Negative to services</td>
<td>0,656</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>spillover</th>
<th>Sig. / gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive to competitor</td>
<td>0,030</td>
</tr>
<tr>
<td>Positive to services</td>
<td>0,243</td>
</tr>
<tr>
<td>Positive to destination</td>
<td>0,008</td>
</tr>
<tr>
<td>Negative to destination</td>
<td>0,002</td>
</tr>
<tr>
<td>Negative to services</td>
<td>0,285</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>spillover</th>
<th>Sig. / reading feedbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive to competitor</td>
<td>0,241</td>
</tr>
<tr>
<td>Positive to services</td>
<td>0,236</td>
</tr>
<tr>
<td>Positive to destination</td>
<td>0,917</td>
</tr>
<tr>
<td>Negative to destination</td>
<td>0,020</td>
</tr>
<tr>
<td>Negative to services</td>
<td>0,924</td>
</tr>
</tbody>
</table>

*Table 16. Significance coefficients for age, gender and reading feedbacks impact on spillovers*

The following table shows the means of answers by gender group. As its seen, when evaluating attitude changes to services in general and competitors, that occur due to the spillover effect, females are more affected by negative eWOM spillovers while males by
positive eWOM. However, when evaluating attitude change towards destination the result is vice versa. Since all dependent variables represent the network, it was expected that gender would equally affect attitude change towards all parts of the network while in this case, it didn’t occur. Even though significant differences are seen, there is no evidence to conclude that gender would affect spillover distribution in a certain way. Since also age and reading feedback parameters didn’t affect distribution, it is concluded that there is no evidence to support the hypothesis hence its rejected.

<table>
<thead>
<tr>
<th>Valence</th>
<th>Gender</th>
<th>Changes of attitude towards services</th>
<th>Changes of attitude towards competitors</th>
<th>Changes of attitude towards the destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>1 Mean</td>
<td>-.96</td>
<td>-.04</td>
<td>-.50</td>
</tr>
<tr>
<td>eWOM</td>
<td>2 Mean</td>
<td>-.88</td>
<td>.16</td>
<td>-.77</td>
</tr>
<tr>
<td>Positive</td>
<td>1 Mean</td>
<td>1.46</td>
<td>.56</td>
<td>1.94</td>
</tr>
<tr>
<td>eWOM</td>
<td>2 Mean</td>
<td>1.57</td>
<td>.75</td>
<td>1.70</td>
</tr>
</tbody>
</table>

*Table 17 Means of attitude changes by gender and eWOM valence*

**H3** Negative eWOM is more likely to generate a strong spillover effect than positive eWOM.

To test this hypothesis the graph of spillover occurrence (in percentage) between all 3 groups had been build. Based on existing theories, it was expected that negative eWOM would spillover more frequent than positive eWOM. Nonetheless, from Figure 7 we can see that positive eWOM spillovers occurred more often, in 81% of all cases, while negative eWOM spillovers were observed only in 55% of all cases.

Furthermore, to see the difference in power of spillovers, the means of changes in attitude towards the object based on valence of the review are compared in Table 18. When seeing differences between means of non-direct eWOM impact, it is seen that positive eWOM generate stronger spillover effect than negative. At the same time, when looking at the direct impact of eWOM (changes in attitude towards focal company), we can see support to theoretical part – negative eWOM have a bigger impact than positive.

As the conclusion, the hypothesis that negative eWOM is more likely to generate a strong spillover effect than positive eWOM is rejected since no evidence where found. Moreover, the results of this research show the totally opposite correlation than described in the hypothesis.
Figure 7. Spillover occurrence rates

<table>
<thead>
<tr>
<th>Valence</th>
<th>Attitude towards services</th>
<th>Attitude towards competitors</th>
<th>Attitude towards destination</th>
<th>Attitude towards the focal company</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative eWOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-.92</td>
<td>.07</td>
<td>-.65</td>
<td>-.204</td>
</tr>
<tr>
<td>N</td>
<td>229</td>
<td>229</td>
<td>229</td>
<td>229</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.544</td>
<td>.537</td>
<td>.669</td>
<td>.709</td>
</tr>
<tr>
<td>Grouped Median</td>
<td>-.91</td>
<td>.08</td>
<td>-.61</td>
<td>-.209</td>
</tr>
<tr>
<td><strong>Neutral eWOM</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>.00</td>
<td>.03</td>
<td>.01</td>
<td>-.03</td>
</tr>
<tr>
<td>N</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.162</td>
<td>.160</td>
<td>.162</td>
<td>.286</td>
</tr>
<tr>
<td>Grouped Median</td>
<td>.00</td>
<td>.03</td>
<td>.01</td>
<td>-.03</td>
</tr>
</tbody>
</table>

Means and Standard Deviations for each category.
**Positive eWOM**

<table>
<thead>
<tr>
<th>N</th>
<th>Std. Deviation</th>
<th>Grouped Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive eWOM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>.734</td>
<td>1.50</td>
</tr>
<tr>
<td>230</td>
<td>.648</td>
<td>.62</td>
</tr>
<tr>
<td>230</td>
<td>.686</td>
<td>1.87</td>
</tr>
<tr>
<td>230</td>
<td>.735</td>
<td>1.86</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>Std. Deviation</th>
<th>Grouped Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>689</td>
<td>1,137</td>
<td>.07</td>
</tr>
<tr>
<td>689</td>
<td>.570</td>
<td>.24</td>
</tr>
<tr>
<td>689</td>
<td>1,187</td>
<td>.24</td>
</tr>
<tr>
<td>689</td>
<td>1,715</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Table 18. Combined means table*

**H4. eWOM spillovers affect tourist attitude towards a non-focal object to a lesser extent than the direct effect of the same eWOM to a focal company.**

Mean compliance table of changes in attitudes towards the objects based on valence of the review had been made to see how spillover impact differs from direct impact. Table 20 shows that the direct impact to the attitude change towards focal company caused by eWOM related to the focal object is bigger than spillover impact to non-focal objects caused by the same eWOM. It is also seen that difference in means vary dependently on eWOM valence and category of non-focal objects. To see if this result is by chance or there is a connection between attitude change to focal and non-focal objects Pearson correlation had been counted and outcomes presented in Table 20.

<table>
<thead>
<tr>
<th>valence</th>
<th>Attitude towards services</th>
<th>Attitude towards competitors</th>
<th>Attitude towards destination</th>
<th>Attitude towards the focal company</th>
</tr>
</thead>
<tbody>
<tr>
<td>negative eWOM</td>
<td>-.92</td>
<td>.07</td>
<td>-.65</td>
<td>-2.04</td>
</tr>
<tr>
<td>positive eWOM</td>
<td>1.51</td>
<td>.65</td>
<td>1.82</td>
<td>1.88</td>
</tr>
</tbody>
</table>

*Table 19. Mean table for H4*
Correlation between spillovers which existence had been proven before and direct impact to the focal company is significant since in all cases $r>0.7$. Such coefficients shows that there is a strong and positive correlation between two variables, hence when direct impact that leads to attitude change towards the focal company caused by eWOM increase or decrease, the spillover effect is also assumed to increase or decrease. Based on evidence that direct impact and spillover impact are correlated and means shows that spillover affects non-focal objects in less extend that direct impact affects the focal company, hypothesis H4 is confirmed.

<table>
<thead>
<tr>
<th>Spillover to</th>
<th>Spillover to</th>
<th>Spillover to</th>
</tr>
</thead>
<tbody>
<tr>
<td>competitor</td>
<td>services</td>
<td>destination</td>
</tr>
<tr>
<td>Positive eWOM impact to focal</td>
<td>0.812</td>
<td>0.813</td>
</tr>
<tr>
<td>Negative eWOM impact to focal</td>
<td>-</td>
<td>0.767</td>
</tr>
</tbody>
</table>

*Table 20. Correlation test for H4*

### 4.4 Summary of the results

During this research, three hypotheses had been confirmed, one – partly confirmed and two rejected. The confirmed and partly confirmed hypotheses are related to the existence of eWOM spillover effect within destination forming network. While rejected ones related to the parameters that affect the spillover, hence it can be concluded that existing theory on what affect eWOM impact, cannot be applied to eWOM spillovers, that shows the gap in researches.

<table>
<thead>
<tr>
<th>H1a. eWOM related to a certain product or company from the network</th>
<th>Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>does have a spillover effect on customer attitude to the destination forming network (destination) in general</td>
<td></td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>H1b.</td>
<td>eWOM related to a certain product or company from the network does have a spillover effect on same category competitors from the network</td>
</tr>
<tr>
<td>H1c.</td>
<td>eWOM related to a certain product or company from a network does have a spillover effect on the same service level</td>
</tr>
<tr>
<td>H2.</td>
<td>Demographics of an individual (age, gender, experience in reading feedbacks) affects eWOM spillover appearance and distribution within destination forming network</td>
</tr>
<tr>
<td>H3.</td>
<td>Negative eWOM is more likely to generate a strong spillover effect than positive eWOM.</td>
</tr>
<tr>
<td>H4.</td>
<td>eWOM spillovers affect tourist attitude towards a non-focal object to a lesser extent than the direct effect of the same eWOM to a focal company.</td>
</tr>
</tbody>
</table>

*Table 21. Summary of the results*
5 DISCUSSIONS

This work was aimed to cover the existing gap in studies on eWOM impact to a destination. Existing works explain how phenomena affect either the whole destination or a component that forms it. However, the theoretical part of this research provides evidence that a destination is a complex organism formed by a network, hence eWOM impact to the network, network processes, and connections must be researched. The work concentrated on proving the existence of eWOM spillovers within destination forming network and researching their distribution.

The following part of the work will answer settled at the beginning of the research questions by discussing the results. Connection to existing literature and theoretical contribution is described as first, following by suggestions on how the outcomes of the work can be utilized by managers. Limitations and recommendations for future research are pointed at the end.

5.1 Theoretical contribution

Relation to existing theories as well as the new knowledge generated from the research is discussed in this paragraph in the form of answers to the research questions.

Main research question: How eWOM spillovers that affect tourist attitude towards a destination and its forming components are distributed within the destination forming network?

The theoretical part of this work shows that eWOM and tourism-related spillovers exist, however, the research is proving the existence of concrete spillovers that were not studied before. The empirical part of this work shows evidence that eWOM given to a focal product or company affects not only the focal object but can spillover as the change of attitude to other tourism destination forming network components and to the whole network in general.

Distribution of spillover phenomena had been tested by setting hypotheses H1a, H1b and H1c. Analyses proved two of them and partly confirmed one. Proven cases show that eWOM related to a focal object spillover has an impact to tourist attitude towards other, non-focal, objects from the same destination forming the network. Such objects are competitors, services available at the destination in general and destination in general, with the exception
that the existence of negative eWOM spillovers to competitors had not been proven in this work. Figure 8 sum up distribution of spillovers generated by focal object-related eWOM. In all illustrated cases spillovers proven to be positively related and significantly affected by the valence of eWOM that generated them. That is: positive eWOM will generate positive spillover and negative – negative spillover. Once again, it must be noted that various parties may evaluate the valence of the impact caused by spillovers differently.

![Diagram of eWOM spillover distribution](image)

**Figure 8. Positive and negative eWOM spillover distribution**

Despite that, the work didn’t prove the existence of negative eWOM spillover to a competitor, some outcomes still to be noted. The data show that there is a possibility that negative eWOM occurs as positive spillover, even that in this research the proposed connection was not significant. This assumption can find some support in the existing literature and can be explained with the fact that any eWOM related to a focal company may spillover as an increase in interest about competitors (Berger and Schwartz 2011). Thought, the more researches, and evidence are needed to make conclusions.

Chae et al. (2016) described three types of gWOM spillovers, presented in paragraph 2.3.1 of this work. The empirical part of this work supported the theory of category spillover existence, where spillovers affect the same category products belonging to competitors. However, in the terms of eWOM, this research found another category of spillovers – within network spillover, when the eWOM given to the focal company indirectly affects other components of the network and network in general. From the one side, destination forming network can be seen as the product, especially from the tourist viewpoint, and spillovers within it could be seen as within product or brand spillovers. Nonetheless, the structure of
network and single company or corporation differs, and the main difference is that a network is formed by various parties, that have own and different goals and aims. In the case of the destination network, a structure can be even more complex, due to existence of networks within the network (Bickerdyke, 1996) and freerides as a member of the network (Zemla, 2016). This leads to the conclusion that the fourth category of eWOM spillovers – within network spillovers is appropriate. Acceptance of this category as such will lead to the new researches regarding spillover distribution in network not only in the context of destination but also in general.

Combination of this research outcomes together with findings by Jalilvand et al. (2012), Setiwan & Wibawa (2018) and Zarrand & Debai (2015) shows that spillover effect within tourism destination forming network tends to generate other spillover effects. As such, the focal company-related eWOM spillovers that affect attitude to non-focal objects from the network furthermore spillover as effect to travel intention. This distribution is illustrated in Figure 9. As seen, an eWOM related to a focal component affects travel intention directly; through spillover, that generated by the direct effect to attitude towards focal component; and throughout 2nd level spillovers that are generated by focal eWOM spillovers affecting attitude to non-focal objects from the network. Travel intention, in turn, affects the network and all components, since determinate whether tourist will visit destination and consume offered tourism products.

This finding and connection are important for further studies and underattendance of eWOM impact. Since if eWOM impact in tourism industry is seen or studied only as a direct impact to a single component or destination as a homogeneous object, the outcomes will underestimate the impact, hence also the power, of eWOM. Distribution of eWOM effect through spillovers as well as further spillovers generated by them, increasing the power of eWOM phenomena, and affects not only the focal component but all organisms involved into the network, even if they exist in it as freeriders. Litvin et al., (2008 and 2017) concluded that eWOM has a great impact to the tourism industry, and with future development of ICT and availability of it, the impact will increase. This work contributes this statement by showing that complexity of destination structure distributes the eWOM effect, hence the total impact of eWOM in the field of tourism is significant and can be easily underestimated by focusing only on the direct impact.
The network approach utilized in this research allowed to discover the existence of spillovers that would not be seen by using other approaches of seeing destination. This support idea of Buhalis (2000) and Baggio et al. (2009) that emphasized the importance of understanding that a destination is formed by a network. Zemla (2016) pointed out that the network approach indicates the existence of freeriders that consume benefits created by joint forces of other network members. Outcomes of this research show that freeriders don’t only utilize benefits, but also can suffer from negative spillovers, since, as shown above, they are distributed between all parties in the network. This, in turn, is an argument for convincing freerides to participate in joint marketing and eWOM management.

What affects spillover effect distribution within destination forming network?

This work only briefly concentrated to this question by setting hypotheses H2 and H3. The research failed to prove any of them. However, findings from the work show that eWOM valence does have an impact on the spillover effect. Firstly, in all significantly proven cases spillovers where positively related to the valence of eWOM that generated them, that is a positive message leads to positive spillover while negative-to negative. Despite the finding

Figure 9. Spillover distribution within destination forming network

![Diagram showing spillover distribution within destination forming network]
of Gavilan et al. (2018) and Sokolova & Krishna (2016) that negative eWOM is more trusted hence have a more weighted direct impact than positive eWOM, this research discovered that in terms of spillover generation results are opposite. The positive review had the spillover effect on attitude more often than negative, moreover impact of the first was stronger. This relation can be explained by Sokolova & Krishna (2016) who connect eWOM valence with rejection or acceptance task, hence level of trust and impact differs. However, in the case of spillovers, the individual is not rejecting non-focal objects, hence negative spillovers do not outperform positive ones.

Actual theories and researches prove that the parameters of an individual do determinate how eWOM will affect him. Assuming, that same applies to the spillover effect, this work tested how age, gender, and utilization of eWOM prior visit affects spillovers. Nonetheless, no significant supporting evidence had been found. Although, Sanders et al. (2009) indicate several disadvantages of an experiment as research design, one of such is low external validity. Moreover, it was proven that the spillover effect is less powerful than the direct impact of eWOM, while Hernandez-Mendez (2013) proves that eWOM impact varies e.g. between different age categories. Combination of all these leads to the conclusion that H2 should be retested by implementing other research design to provide more significant answers.

What is the correlation between direct impact and spillover effect generated by eWOM

The connection between the direct and indirect impact of eWOM partly is discussed above, by discovering factors that differently affect both phenomena. Literature shows that correlation between the impact of both varies based on the case. H4 had been set to explore whether the impact of eWOM spillover with the same power or not. The results show that in cases where spillovers had been proven, they had been positively related to the valence of eWOM, however spillover affected non-focal objects at less extent than direct eWOM impact affected the focal object. In addition, the positive impact tends to have more strongly co-related spillover effect than negative. This research also shows that evaluation of spillover impact to attitude towards non-focal objects has a strong and positive correlation with an evaluation of direct impact.
5.2 Managerial implications

The results of this thesis provide important information for the marketing and management in the field of tourism. Implementation of the outcomes is believed to improve destination management process. The main outcomes to be noted are explained below.

The first valuable outcome is evidenced supporting network approach in the determination of destination. The evidence is seen from both – theoretical and empirical parts. Utilization of networking approach as the way of destination management will allow boosting the development of the destination and gathering competitive advantages on the global market. This development will occur through combining the forces of destination forming network, joint sharing and generating of knowledge between members, managing and directing marketing strategies to achieve the joint vision of the resort. The Ruka-Kuusamo case shows a good example of implementing networking approach.

Second, and the most important outcome is information about eWOM spillover distribution within a destination. While eWOM becoming more recognized and utilized marketing tool in the field of tourism (Litvin et al. 2017), it is of high importance to understand that a company within destination is affected not only directly by eWOM related to the company, but also through spillover effect of eWOM related to other objects from the destination. That, in turn, leads to certain challenges and opportunities. As the challenge is feedback management and result improvement. If a negative review is related to a focal company, the focal company can take actions to improve provided experiences and minimize the risk of negative reviews in the future. However, when a review is related to other company, others can suffer if the focal company will not take actions to improve the experiences they provide. This, in turn, again underlines the advantage of network approach, where other members can influence a focal company through knowledge sharing.

From the spillover opportunities, it is worth mentioning that underattendance of impact distribution can be utilized to gain competitive advantages through two channels. First, the destination can improve the image and attitude towards it not only through direct reviews, but also utilizing eWOM related to other organisms within the destination, that in turn will lead to increased travel intention. As discussed before, travel intention is beneficial for all members of the destination. The second channel is gaining global and within destination competitive advantages by individual organisms from the destination. As such, by knowing
that positive eWOM has a positive effect on attitude towards services and competitors, companies may utilize eWOM related to another destination member to show the level of services at the destination hence creating more competitive outlook on the global scale. While locally, companies can refer to other destination member eWOM, to utilize the spillover effect when eWOM regarding themselves or a product is not available (does not exist yet).

Moreover, this work includes a comprehensive theoretical overview with wide reference list, that can be utilized to improve the knowledge on the topic by managers working in the tourism industry. The most valuable information included in the theoretical part is an explanation about travel experience sharing behavior and underattendance how eWOM generation can be boosted, as well as knowledge on eWOM impact related to the industry.

5.3 Limitations and future research

It is to be noted that this work has several limitations. Firstly, participants of the research do not represent the full demographic population, since age group under 18 y.o was missing, thought kids and teenagers are consumers of touristic products and their opinion may influence parents buying behavior. The obvious reason why this age group didn’t take part in the research is that questionnaires had been sent to persons responsible for holiday booking and in case of families it is one of the adults.

This study focused on the spillover effect that has an impact on tourist attitude since the research was aimed to prove spillover existence as such. Therefore, the results may not represent the distribution of spillovers affecting other dimensions such as destination/product image. Also, the spillover effect in the research had been studied based on a limited amount of eWOM, each respondent seen only one review, however in the real-life spillovers will be determinate by the combination of reviews utilized by a tourist.

The theoretical part of this work highlights the connection between the level of trust to an eWOM source and such eWOM impact, however particular research design implemented in this work didn’t test the impact of trust to spillover appearance and distribution. Since this research had been conducted in the form of experiment in the laboratory environment, it is possible that respondents trusted the given eWOM more than if they would see it in the real
environment. Moreover, TripAdvisor had been used and mentioned as the source of eWOM, therefore other sources may show different results.

The work points out several other gaps in existing theory, that can be interesting topics for research, such as eWOM conceptualization. However, in context of this research, it would be beneficial to study how spillovers are distributed within the network when they are generated by eWOM related to a whole destination and not just to a company from the destination as in case of this paper. Does the network structure affect eWOM impact distribution? How do the spillovers from the focal eWOM tend to furthermore re-spillover between network forming destination members? This questions also are not answered yet. Moreover, research on whether eWOM spillovers that exist between destinations furthermore are distributed within the destinations would fulfill the existing gap.
LIST OF REFERENCES


Weissgerber, T., Garcia A.V., Garovic, O., Garovic, D., Milic, V., Milic, M., Stacey, N. & Stacey, W. (2018). Meta-Research: Why we need to report more than 'Data were Analyzed by t-tests or ANOVA'. eLife. 7.


Appendix 1. Survey questionnaire form.

**Default Question Block**

Your age

[Dropdown]

Your gender

- Male
- Female

Have you visited Ruka-Kuusamo area

- Yes
- No

Have you read any reviews about Ruka or available services before your trip?

- Yes
- No

**Block 4**

Please, read the following review from TripAdvisor regarding a local company providing services in Ruka-Kuusamo

[Review]

**Block 2**

Please, read the following review from TripAdvisor about a local company providing services in Ruka-Kuusamo
Block 1

Please, read the following review from TripAdvisor regarding a local company providing services in Ruka-Kuusamo.

Block 5

How would you evaluate message of the review

Based on the review you read, please, evaluate changes in your attitude towards following:

<table>
<thead>
<tr>
<th>Attitude to local company (feel received mentioned review)</th>
<th>Click to write Column 1</th>
<th>Click to write Column 2</th>
<th>Hard to evaluate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude to competitors offering services in Ruka</td>
<td>Strongly negative changes</td>
<td>Moderate negative changes</td>
<td>Slightly positive changes in attitude</td>
</tr>
<tr>
<td>Attitude to services available in Ruka in general</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude to Ruka as a destination</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>