**The Online Destination Image Representation**

Rotterdam through the eyes of tourists, locals, city marketers and the municipality

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# ABSTRACT

The ubiquity of the internet has impacted the marketing of tourism organizations, which in turn impacted the tourism sector. Organizations as city marketers and cities themselves are now able to advertise for relatively inexpensive costs while reaching a big audience all over the world. Consumers also benefit from the development as they can now share their experiences, but also read reviews of other travelers to gain information about a destination. Those reviews are user-generated content (UGC) and function as the electronic version of word-of-mouth. It affects the destination image and thus the decision making process of potential tourists. Previous research investigated how user-generated blogs written by travelers can be used for the marketing strategy of city marketers. This study analyzed the perceived destination image of locals through blogs, to investigate if this destination image differs from that of tourist and city marketers, and if the blogs written by locals could be used in the marketing strategy of destination organizations. The online information sources about Rotterdam were analyzed, to investigate this phenomenon and answer the research question *"What is the relation between the online destination image presented by user-generated content and promotional tourism websites?"* The UGC that was analyzed are travel blogs written by tourists and locals. The promotional tourism websites that were included in this research are from destination marketing organizations (DMOs) and Rotterdam Tourist Information (RTI). A semantic network analysis was employed, to obtain a graphic representation of the relationships of the most frequently used words in the data of the sources. The most frequently used words were then coded using content analysis to subtract themes regarding the destination image of the online sources. The results indicate that the presented destination image varies between the analyzed information sources. The DMOs frequently mention words related to attractions and activities, while the locals and RTI mostly describe themes related to food and beverages. The travel blogs from the tourists present a varied destination image, but accommodations are the richest theme. Practical implications and recommendations for future research were discussed in the conclusion.

KEYWORDS: *Destination Image, Tourism, User-Generated Content (UGC), Locals, Marketing Strategy*

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# 1. Introduction

## 1.1 Background

For the last decades, more people tend to spend their leisure time traveling, which positively affects the economic development (Cheng, Shang, & Li, 2014). At the end of the twentieth century, the internet underwent a development, which altered the operational and strategic practices of the tourism sector (Buhalis & Law, 2008). Before this development, advertisements were bought by organizations and were shown to the public by mass media sources (Bakker, 2016). The development of the information and communication technologies have changed the tourism experience, as well as the travel industry (Fernandez-Cavia, Marchiori, Haven-Tang, & Cantoni, 2017; Lian & Yu, 2019; Thakur & AlSaleh, 2018). The new developments made the destination information available for people all around the world, at any moment (Horng & Tsai, 2010). It has even become a key influence in the marketing channel for organizations in the sector (Akehurst, 2008; Lian & Yu, 2019; Mendes-Filho, Mills, Tan & Milne, 2018; Stepchenkova & Morrison, 2006). One of the advantages of the online world for companies and organizations is the economic advantage the internet has brought compared to traditional promotion and advertising media, as it is cheaper (Standing & Vasudavan, 2000). The internet has not only made it easier for organizations to promote their destination online, but it also allows the consumers to write about their personal experiences and read the experiences of others. Those reviews written by consumers are a form of user-generated content (UGC) (Yoo & Gretzel, 2011). As those reviews can contain tips and recommendations, they function as an online version of word-of-mouth, also known as electronic word-of-mouth (eWOM) (Tseng, Wu, Morrison, Zhang, & Cheng, 2015). The information written by the consumers, is able to influence the destination image of its readers (Cox, Burgess, Sellitto, & Buultjes, 2009) which empowers the writers and distributors of the information (George & Scerri, 2007). There are various ways for consumers to share their experiences and communicate with others. Platforms that are often used to share their experiences are diverse, such as via e-mail, on social media and by publishing travel blogs. The latter platform has become a very popular option among tourists (Chandralal, Rindfleish & Valenzuela, 2015; Volo, 2010).

## 1.2 Online Travel Information Sources

Before the development of the internet, the advertising of tourism organizations was through mass media. Organization were able to buy advertisements that were shown to a big audience to influence potential consumers. Organizations could thus influence what was shown to the audience.

Since the internet, everybody with an internet connection is able to post information online and share this with fellow internet users. This means that the organizations do not have the control about the information that is shared online (Bakker, 2016). It had made the internet the most important marketing channel for organizations in the tourism sector (Akehurst, 2008; Lian & Yu, 2019; Mendes-Filho et al., 2018; Stepchenkova & Morrison, 2006). It has become a fundamental information source for the potential consumers to collect information about a destination (Morrison, Taylor & Douglas, 2005).

The internet made the tourism destination image a more dynamic social construction. The traditional destination image, before the prevalence of the internet, was formed by printed guidebooks and brochures made by the organizations (Hunter, 2016). The internet allows tourists to obtain information about the destination in a variety of ways (Iinuma, Nanba & Takezawa, 2018). The potential consumers can now acquire online information about a destination through tourism organizations (Horng & Tsai, 2010) and from other consumers (Pan, MacLaurin & Crotts, 2007). The destination images that are reflected on official tourism websites and social platforms differ from each other (Llodrà-Riera, Martínez-Ruiz, Jiménez-Zarco, & Izquierdo-Yusta, 2015). This research investigates the differences of the online destination image perceived by various online travel-related information sources. Van Raaij and Franken (1984) categorized travel information sources into three categories: advisory, commercial and social. Applying those segments in the information sources that can be found online, the official tourism website of a destination's municipality can be seen as advisory, the destination marketing organizations (DMOs) as commercial and UGC as social.

Before visiting a specific destination, the tourists normally have limited knowledge about the destination (Beerli & Martín, 2004). Therefore the information that is accessible, is important to form a destination image in order to make decisions during the trip planning (Lepp, Gibson & Lane, 2011). The information that the potential customers get from previous consumers is important during the formation of destination image. This communication should be monitored by city marketers in order to employ strategies to incorporate travel blogs in their marketing strategy (Wenger, 2007). It is therefore that this research will focus on the differences of the perceived destination image of online travel information sources, to seek for marketing opportunities for city marketers. The online information sources that will be included in this research are UGC and promotional tourism websites.

## 1.2.1 User-Generated Content

The internet allows its users to have a two-way information communication, as it enables people to post and share their experiences (Sigala, 2008) and at the same time search for information (Litvin et

al., 2008). Parra-López, Gutiérrez-Taño, Díaz-Armas, and Bulchand-Gidumal (2011) categorized those two functionalities as: information posting and information searches. They divided the functionality 'information posting' into two categories: the sharing of information by mass-used media and platforms, and commenting to share an opinion as a review on review platforms. The fact that consumers are able to submit, review and respond to online content, is UGC (Cox et al., 2009). It is the most efficient way for consumers to share their experiences and interact with each other, is through UGC (Whiting & Williams, 2013; Zhao & Rosson, 2009).

One of the greatest and most influential UGC platform that has emerged from the internet (Sun, Ryan, & Pan, 2015; Thakyr & AlSaleh, 2018), which gets a lot of attention from people all around the world (Bosangit, McCabe, & Hibbert, 2009), is blogging. Blog is short for 'web log' (Litvin, Goldsmith, & Pan, 2008; Lovink, 2013; Thakur & AlSaleh, 2018) and was originally intended to let people follow their own online records, but instantly became part of a new lifestyle (Hsu & Lin, 2008). Blogs are frequently updated entries (Pan et al., 2007) and the typical thing about blogs is that the entries are stored in reverse chronological order, so the latest story will appear first (Boulos, Maramba, & Wheeler, 2006). The motivations for the bloggers to write blogs are very diverse. Pan et al. summarized those motivations as "communication of product information, […] entertainment, information, social interaction, self-expression, passing time and professional advancement" (2007, p. 37). The most important reasons to write blogs are sharing life experience and social interaction. The authors of blogs are free to write about any topic (Hsu & Lin, 2008), but according to Magnini, Crotts and Zehrer (2011), the most popular topic of all categories of internet blogs is the travel and tourism sector. The 2010 State Blogosphere Report stated that 20% of the analyzed bloggers, blogged about their travel journeys (Technorati, 2010). In travel blogs, bloggers write about their experiences while traveling to specific destinations (Pan et al., 2007).

Future tourists take the advice from experienced consumers through online reviews (Shin, Chung, Xiang & Koo, 2018) and the most popular platform for online communications are blogs (Chandralal et al., 2015; Volo, 2010). Schmallegger and Carson (2008) found that the most common activity during the trip planning phase is to look at reviews of consumers and read travel-related blogs online. This helps them to make decisions about their choice of destination and the activities they could participate in. These studies reveal that the promotion of a country or city is not only in the hands of tourism organizations like travel agencies and city marketers anymore. The content that is generated by consumers also influences the trip planning phase. The selection of a destination nowadays also

depends on the information and reviews of previous visitors for their marketing strategy as this information influences the decision making of the tourists (Cox et al., 2009).

A study of Fairweather and Swaffield (2002), showed that the experience in a destination image can vary between locals and visitors of that destination. Previous research recognizes the importance of studying the destination image of local residents of their own city for the development of that touristic destination (Henkel, Henkel, Agrusa, Agrusa & Tanner, 2006; Stylidis, Sit & Biran, 2016). Their destination image can even influence the destination image process of tourists, as the residents can play a role in the promotion of their own city (Stylidis, Shani & Belhassen, 2017). The destination image perceived by tourists from travel blogs has been a study of subject in previous research (Choi, Lehto & Morrison, 2007; Govers & Go, 2007; Tseng et al., 2015; Wenger, 2007) and the implications for marketing strategies of destination marketers as well (Pan et al., 2007). The perceived destination image of travel blogs written by locals could also benefit the marketing strategy of those organizations. Therefore, this research will include those blogs in the analysis, to identify if there are differences in the presented destination image in travel blogs between tourists and locals and the implications for the travel blogs of locals in the marketing strategy of destination organizations as well.

## 1.2.2 Promotional Tourism Websites

Reviews and recommendations from other internet users are not the only source for potential tourists to collect information about a destination. People could also gather information from destination marketers to make decisions about their journey (Horng & Tsai, 2010). Those organizations could be split up in private entities and government organizations (Govers & Go, 2005). The internet has also influenced the marketing strategies of those organizations, as the information on their website is available for all the people that are connected to the internet. It also allows organizations to distribute more personalized service and information to potential customers (Horng & Tsai, 2010).

The private organizations that are aimed to generate tourists visitation in certain areas are called destination marketing organizations (DMOs) and provide touristic information to attract visitors to the destination (Gretzel, Fesenmaier, Formica & O'Leary, 2016). Since the internet has become increasingly popular, the influence and dominance of DMOs has declined (Choi et al., 2007). The rise of travel blogs plays a critical role in the tourism sector nowadays (Pan et al., 2007), as the tourists now have an almost infinite source of information that can help them to make decisions (Akehurst, 2008). It is important for tourism marketers to know this technological phenomenon and its implications for the marketing and promotion options of destinations (Pan et al., 2007).

Municipalities have noticed the increase of internet use among tourists while searching for information about a destination and started to make use of the internet as a promotional channel (Lee, 2017). Many nations and districts currently own a government-sponsored tourism website, on which visitors can find information about the nation or district (Horng & Tsai, 2010).

## 1.3 Research Questions

As the internet is nowadays the most used marketing channel for organizations in the travel industry (Akehurst, 2008; Lian & Yu, 2019; Mendes-Filho et al., 2018; Stepchenkova & Morrison, 2006), this study will focus on the destination image that is represented online. The tourism products are an experience and are thus intangible (Chen, Shang & Li, 2014; Lepp et al., 2011). Consumers cannot evaluate the products before the consumption, which makes the information to make decisions important. The decisions are being made based on the created destination image (Lepp et al., 2011). Consumer to consumer communication is an important determinant of the destination image (Wenger, 2007) and the internet provided a platform to make that communication easier (Pan et al., 2007). This research will look deeper into the differences of the consumer to consumer communication on the one hand and the official promotion of tourism organizations on the other hand. The research question is therefore stated as follows: *"What is the relation between the online destination image presented by user-generated content and promotional tourism websites?"* The information sources that will be used in the analysis to answer this research question are: travel blog entries of tourists, travel blog entries of locals, content of the websites of DMOs and content of the government tourism website of the destination. Before comparisons can be made and relations can be studied, the presented destination image of the online sources need to be uncovered. All the information sources will therefore be analyzed to answer the first sub question: *"How is the destination image presented online by the various information sources?"* The potential differences and relationships between those sources will be analyzed to answer the second sub question: *"How is the content generated by locals useful in the marketing strategy of destination marketers?"*

## 1.4 Scientific and Social Relevance

Previous research has shown that consumers are more inclined to depend on the judgements and recommendations of other consumers, rather than the advertisements of companies (Akehurst, 2009; Nikolinakou & King, 2018). This form of UGC is therefore very important for the marketing strategy of companies (Müller & Christandl, 2019), as it is considered as influential for consumers and inexpensive for companies (Banyai & Glover, 2012). The travel experiences of consumers can be

collected through travel blog entries and provide useful information for potential tourists (Iinuma et al., 2018). The travel blogs have an influence on the destination image and thus the decision making during the planning of a trip (Cox et al., 2009). The scientific purpose is to better understand the travel blogs as an explanation of individual destination experiences compared to travel marketers, as this study will investigate the possible gap between travel blogs of tourists and locals and the online information of tourism marketers. It will test the outcomes of previous research and compares the perceived destination image of tourists, locals and destination marketers. There are previous academic sources regarding the online destination image of different destinations. Existing research studied the perceived destination image from travel blogs (Tseng et al., 2015), compared the destination image of travel blogs with existing research (Wenger, 2007), compared the destination images of two cities (Tang, Scherer & Morrison, 2011), compared the destination image of different online sources (Choi et al., 2007; Govers and Go, 2005) and studied the implications of travel blogs for destination marketing (Pan et al., 2007). Fairweather and Swaffield (2002) also found differences in the perceived destination image of tourists and locals, but did not include the information of destination marketers. By researching travel blogs written by locals to study the destination image of locals, this study could add value to the literature of the destination information generated by locals. This study follows the methods of these studies, to investigate what the relation is between the image of the marketers and the tourists and how these results could be implemented in destination marketing.

The destination image that is determined after a visit of the destination represents the real image of the destination (Mackay & Fesenmaier, 2000). Visitors that have never visited a destination before, have not experienced that destination and thus do not have a destination image build on experiences of that destination (Beerli & Martín, 2004). Instead, they build a destination image based on information that is provided to them. The destination image that is perceived by visitors reflects the differences in information processing and interpretation from the tourists, and could thus differ from the real destination image (Mackay & Fesenmaier, 2000). It is therefore important that the destination image presented in promotional content is in line with the perceived destination image of the tourists (Choi et al., 2007). Destination marketers should note that there are differences in the destination image spread by different destination information sources (Choi et al., 2007). Travel blogs created by tourists are being used in current marketing strategies of destination promoters (Wenger, 2007). The analysis of the destination image of the locals could give the marketers of destinations a new dimension to include in their marketing strategy.

Aside from written blogs, travelers also share their stories and recommendations with the use of visual content as videos and pictures (Bakker, 2016). The video blogs, also known as vlogs, are often shared on YouTube, Vimeo and Vine and the pictures on Instagram (Gretzel, 2017). Research conducted by Lee and Tussyadiah (2016) provided that the combination of visual and written or spoken language is being perceived as more influential than verbal information only. Blogging platforms and travel communities let its users upload textual information as well as photos and other visuals, which makes those tools useful during information searching. The research of Lee and Tussyadiah (2016) also found that travelers tend to upload a combination of verbal and visual content more often on the travel blog platforms as opposed to the review websites. This is due to the technical difficulties that make it harder to post both types of content on the travel review websites. Therefore, this study will investigate the blog platforms to identify the destination image perceived by tourists and locals.

## 1.5 Case Study: Rotterdam

In the Netherlands, the tourism sector is expanding which is mainly due to foreign tourists ("Centraal Bureau voor Statistieken", 2018). In 2017, the Netherlands welcomed 18 million tourists from abroad. But the Netherlands Board of Tourism and Conventions is expecting the number to increase to 29 million by 2030 (Solanki, 2018). The tourism sector accounted for 82 billion euros in revenues in 2017, and provides the income for 761,000 people, which represents 7.5% of the working population in the Netherlands. ("The Netherlands Board of Tourism & Conventions", n.d.). The tourism is therefore important for the Netherlands. A city that is profiting from the increasing tourism in the Netherlands is Rotterdam. In the first three months of 2018, this city has welcomed 324.000 tourists, which was an increase of 26% compared to the same period in 2017. That increase is almost three times more compared to the rest of the Netherlands, where tourism increased with 9.2% (Kooyman, 2018). This study will be carried out with the online destination information that is provided about Rotterdam, to investigate if the blogs written by locals can add value to the marketing strategy of tourism organizations.

The most frequently visited attractions in Rotterdam are Diergaarde Blijdorp, Spido and the Euromast. ("Groei toerisme in Rotterdam blijft aanhouden", 2019). But according to Russo and van der Borg (2002), the "aggressive modernity" of Rotterdam's architecture is its strongest trademark. The architecture in the center of Rotterdam is mainly modern, because of the bombardments during the Second World War which destroyed 250 hectares of Rotterdam (van Giersbergen & Spork, 2015). Especially the center was affected and reconstructed, which led to an old city with 'a young heart'

(Jongstra & van der Schroor, 2015). Therefore, Rotterdam is national and international known as the city of architecture ("Eerste keer in Rotterdam," n.d.).

# 2. Theoretical Framework

The development of the internet has affected the tourism sector (Buhalis & Law, 2008) as it contributed a platform for travelers to share their experiences through travel blogs (Bosangit et al., 2009; Li, Lin, Tsai & Wang, 2015). This content created by travel consumers could be of use for both the consumers as well as the destination organizations. The travelers use them to be more independent. They do not need help from destination organizations as travel agencies anymore, to get relevant information during their decision making process (Ayeh, Au & Law, 2013). The destination marketers could make use of blogs to get a better understanding of tourists' production and consumption of tourism products (Bosangit, et al., 2009; Schmallegger & Carson, 2008). This is important for those organizations as travel blogs affect the decision making and destination image of tourists (Klein, 1998; Pan et al., 2007; Schmallegger & Carson, 2008). Marketing strategies of destination promoters can be improved by advertising the destination image based on tourist's impressions, perceptions, needs and assumptions (Banyai & Glover, 2012). This study aims to investigate the destination image of Rotterdam presented in online UGC. The content from tourists and locals in travel blogs about Rotterdam will be analyzed. Those images will be compared with the images from city marketers of Rotterdam, to see if their promotion should be altered. The promotional content is divided in two sub-categories: the DMOs and the municipality of Rotterdam. The online information that is available from those categories will be used for this study.

The internet provide new information sources for potential travelers to collect information about future destinations for their trip (Morrison et al., 2005). Tourists were used to be exposed to promotion of a destination by travel magazines and brochures (Bakker, 2016). Due to the internet, tourists are able to collect almost infinite information about a destination of promoters on the one hand and former consumers on the other hand (Horng & Tsai, 2010; Pan et al., 2007). Recommendations are being perceived as more reliable than the online advertisements of organizations (Akehurst, 2009; Nikolinakou & King, 2018) and the user-generated content is therefore important during the forming of the destination image (Schmallegger & Carson, 2008). The user-generated content of tourists was studied in previous research, where they studied the destination image of tourists based on travel blogs (Tseng et al., 2015; Wenger, 2007). Nevertheless, travel blogs written by locals have not been a topic of study yet. Therefore, this research will include the destination image of locals presented in travel blogs.

In this section, the theory will be outlined that will be used during this research to answer the research questions as stated in the previous section. The different concepts that describe the influence of online travel sources on the destination image will be explained. The online sources that will be further explained are travel blogs, DMOs and official destination websites. Travel blogs are user-generated content and can be seen as a form of electronic word-of-mouth and will influence the decision making and destination image of tourists. Tourism marketers like destination promoters and municipalities should take the destination images of tourists into consideration while promoting a touristic destination. These concepts will be further explained and previous research on these topics will be presented. Previous studies into the destination image of Rotterdam will also be mentioned in this section.

## 2.1 Destination Image

The products of the tourism sector are intangible and uncertain (Chen et al., 2014; Lepp et al., 2011) and they can only be experienced until well after the purchase (Fakeye & Crompton, 1991). Tourists depend on the information that is provided to them, to make decision about the choice of their destination. Therefore, the information is important for the tourists to create a destination image (Lepp et al., 2011). Tasci and Gartner (2007) even stated that the tourism industry is becoming increasingly dependent on the destination image. They state that researchers have found different beliefs for the importance of the destination image. There are researchers that claim that the overall success of a destination in tourism is related to the importance of the development of the destination image. Others claim that the importance of the destination image is related to the supply-side aspects, as marketing promotion. Another group of researchers relate the importance of the destination image to its effect on the demand-side, as tourist behavior, especially during decision making (Tasci & Gartner, 2007).

The definition of destination image is by Govers, Go & Kumar (2007) is stated in Chen et al. as: "a mental portrayal of the virtual experience, or what the experience might look like in a future trip [and] it is composed of a set of beliefs, ideas and impressions about the destination" (2014, p. 788). Although the topic of destination image has already been a popular topic of study since the 1970s, the connection with destination branding has not been made until 2002 (Tseng et al., 2015). Cai (2002) proposed a conceptual model of destination branding which was built on previous studies. The study found that branding is able to support to create a consistent image perceived by tourists. The destination image creates value for the local destination organizations, as it has the power to attract tourists to that certain destination (Banyai, 2010; Tasci & Gartner, 2007). In order to have a positive

effect on the destination, the destination image should be perceived as distinctive, appealing, simple, believable and based on reality (Kotler & Gertner, 2004).

The formation of the destination image is the most important step during the planning of the trip. It is essential to know what shapes the image, as the destination image can be used to influence the behavior of the tourists to choose a destination (Baloglu & McClearly, 1999; Banyai, 2010). Before visiting a certain destination, tourists usually do not possess a lot of knowledge about that destination (Beerli & Martín, 2004). The most important influences for creating a destination image are: tourism motivations, sociodemographics and various information sources (Baloglu & McCleary, 1999; Jalilvand & Heidari, 2017). The opportunity for destination marketers lies in the information they provide as a source to persuade tourists to visit their city. The relevant information that a person perceives, must be accumulated, memorized, processed and summarized in order to form a destination image (Chen & Shang, 2014).

## 2.2 Influence of the Internet on the Tourism Sector

The development of the internet and communication technology has changed the tourism sector (Buhalis & Law, 2017; Lian & Yu, 2019; Thakur & AlSaleh, 2018). Advertisements and information about a destination are available for customers worldwide, at any time (Horng & Tsai, 2010). It is therefore important that the content is updated frequently (Lin & Huang, 2006). Rosen and Purinton (2004) found that not only the content is important to attract tourists, but also the way the information is presented with the help of graphics and photos. Another positive influence for organizations is the interaction the internet offers. It had made it easier for organizations to understand the preferences of the potential tourists, communicate with them directly and personally and provide them with personalized services (Horng & Tsai, 2010).

Previous research shows that tourists who looked up information about their next destination online tent to spend more money at their destination in comparison with people that used other sources. This is because the online searchers were able to find offers that better met their demands (Bakos, 1998). The tourists who searched for online information, also stayed for a longer period at the destination then those that consulted different information sources (Luo, Feng & Chai, 2004). The prices that are offered online are not only easier to compare, but also offer more discounts as a result of the saved charges from the shortening of the value chain. Those prices cannot be offered offline, which results in better prices for the online tourists (Buhalis & Law, 2008).

The internet gave access to tools as search engines, price-comparison sites, reservation systems and online travel agencies that provided more convenience for tourists (Buhalis, 1998). The number of tourists that use the internet for information is increasing, because it provides them with more thorough information and richer content compared with the traditional information sources as travel brochures (Stepchenkova & Morrison, 2006). The internet enables the future travelers to reliable and accurate information about reservations and costs in a fraction of time (O'Connor, 1999). There is also an increase of travel related information online, so the people have many information sources to choose from (Pan et al., 2007). The internet also decrease reaction time, so the service quality and therefore the traveler satisfaction increases (Buhalis & Law, 2008). The tourism sector is the largest industry to sell their products and services over the industry (Abou-Shouk, Lim, & Megicks, 2013). As the internet penetration is very high, 56.8% worldwide and in regions as North America and Europe more than 80%, the technology has become important for the biggest online seller (Internet World Stats, 2019).

One negative aspect that the internet has brought for the potential tourists is that it provides too many choices, also known as information overload. Especially non-frequent web users seek for travel related content through search engines, which gives them multiple websites with information (Buhalis & Law, 2008). Information overload can even have a negative effect on the destination image. Frias, Rodriguez and Castañeda (2008) found that consumers who only used the information of travel agents created a more positive destination image than the consumers who used the information of both the internet and travel agents. This effect is higher when the potential tourists have a higher message involvement, than when they have a low message involvement. The message involvement appoints the situation of a person caused by a stimulus or situation. The researchers believe this effect could be caused by the fact that people with a low message involvement create a destination image based on the content of the webpage that is related to the lay-out and design, based on the information that is provided. A tool that can help during an online information search is the recommender system, which provides people with personalized information and options (Gretzel, Mitsche, Hwang & Fesenmaier, 2004). This makes the information more valuable and therefore assists the travelers in their decision making process (Ricci, 2002).

Previous studies show that the internet changed the nature of how users communicate with each other and with organizations. A theory that is linked with the involvement of users in media usage and the interaction of those users with the communication media, is the use and gratifications theory (U&G). This theory assumes that the use of media and the way media is used, is a determined and motivated

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activity of those users (Blumler & Katz, 1974). It explains the reasons why users use media and what influences those reasons (Valentine, 2013). U&G was originally used to study traditional media, but recent studies have used the theory in relation with computer-mediated communication as the internet and social media (Ifinedo, 2016; Liu, Min & Han, 2019). The study of Ku, Chen and Zhang (2013) found that social media users will continue to use social networks, if their needs and gratifications are met by the use of those networks. Stafford, Stafford & Schkade (2004) found three components for the reasons to use the internet and categorized them in: process gratification, content gratification and social gratification. The first category refers to internet users who are looking for information, knowledge or research. As the current study is focused on the information available to internet users to create a destination image, this category covers this research. The study of Mendes-Filho and Tan (2009) connected the study of Stafford et al. (2004) to UGC by relating it to the dual-process theory, in order to determine the empowerment dimensions of the content. The dual-process theory reflects the normative influence from the audience, which is necessary with UGC as it is being read by strangers on the internet (Mendes-Filho and Tan, 2009). The normative influence means the opinion of the users that is generating content, and the way this opinion would affect the choice of the readers (Kaplan & Miller, 1987). The determents that arose from the information content and have been used in previous research are: argument quality, information framing, source credibility and information consistency (Mendes-Filho and Tan, 2009). The argument quality implies that information with strong arguments will receive a more positive attitude from the receivers of that message (Cheung, Luo, Sia, & Chen, 2009). A positive or negative information framing shows the strengths and weaknesses (Cheung et al., 2009; Grewal, Gotlieb & Marmorstein, 1994). The source reliability relates to the acceptance of the information at the end of the receiver. A highly credible source is more likely to be trusted than a low credible source (Grewal et al., 1994). The information consistency concerns the massage that is being perceived and if it is in line with the existent knowledge of the reader (Zhang & Watts, 2003). The information that confirms their prior knowledge, is believed to be more believable (Cheung et al., 2009).

## 2.3 User-Generated Content

Before the development of the internet, advertisements were spread through one-way information sources (Carrera et al., 2008) and mass-advertisements were shown to big audiences (Bakker, 2016). New technologies on the internet had made it possible for the consumers to share information with other consumers (Carrera t al., 2008). A difference between the content generated by users and the traditional advertisements, lies in the fact that UGC is not created by professionals, but it

is being produced by "general public" (Daughtry, Eastin & Bright, 2008). As a result, the general public is empowered on the web (George & Scerri, 2007) as they now are not only consumers, but also producers and play a role in the creation and distribution of the information (Arriga & Levina, 2008).

The internet has made it possible for consumers to express and share their opinion and experiences through digital video, blogging, podcasting, photography, social networks and user-forum posts (Daughtry et al., 2008). These UGC tools subsidized in the rise of the empowerment of the consumers (Mendes-Filho, L., & Tan, 2009). Consumers can depend on UGC tools for the latest information, instead of waiting for website owners to update their information (O'Conner, 2008). This empowered the tourists as they can now share and perceive tips of tourist experiences (Hjalager, 2001). As a result, the UGC has become important for the tourism industry (Freedman, 2007). As travel blogs are used more often by travelers to post content (Lee and Tussyadiah, 2016), this study will focus on the informational content on travel blogs.

A concern that should be taken into consideration, is that the UGC is not always genuinely generated by users. Fake online identities are used to pose as an independent genuine reviewer, while the writer is in fact an organization. The fake identities are being used to post fake reviews which promote their own reputation or negatively affect their competitors (Litvin et al., 2008). Other research even found that the staff of hotels are being contacted by other organizations that would write reviews on websites as TripAdvisor.com in exchange for a monthly fee. In one case, a hotel had already managed to get positive reviews, before it had even opened (Eyah, Au & Law, 2013). As it is hard to separate the genuine consumers from the fake users, it is possible that content will transpire in the data set of this analysis. This should be taken into account during this research.

## 2.3.1 Travel Blogs

One way to collect useful information about the previous experiences of a specific destination from other travelers on the internet, is through travel blogs (Iinuma et al., 2018; Pan et al., 2007). The most regular form of travel blogs is consumer to consumer (C2C), where the travelers write about their own personal journey during their trip. Other forms that are possible are business to business (B2B), business to consumer (B2C) and government to consumer (G2C) blogs (Schmallegger & Carson, 2008). Those last three types of blogs may be generated by marketers or by external professionals and can thus be seen as advertorial (Chen et al., 2014). As this research is interested in the destination image perceived by locals and tourists through travel blogs, only the C2C blogs will be analyzed. The study of

Pan et al. (2007) shows that the analysis of travel blogs can be used to identify strengths and weaknesses of a specific destination.

2.3.2 User-Generated Content as Electronic Word-of-Mouth

Travel blogs are able to influence its readers during the decision making process of their journey (Sun et al., 2015). Blogs are personal journeys of travelers and include recommendations and tips of the destination and could therefore function as an online version of word-of-mouth, known as electronic word-of-mouth (eWOM) (Tseng et al., 2015). Litvin et al. described eWOM as "all informal communications directed at consumers through internet-based technology related to usage of characteristics of particular goods and services, or their seller" (2008, p. 461). Online consumers tent to trust their fellow users' reviews on social media, over the online advertising content of organizations (Akehurst, 2009; Nikolinakou & King, 2018). The reason for this is that the person who wrote the recommendation has nothing to lose and is therefore being perceived as more honest (Burgess et al., 2009; Wenger, 2009). Travel blogs could function as an influential and low-cost marketing tool for tourism or destination marketers (Banyai & Glover, 2012), which are often consulted by potential tourists during their trip planning phase (Tse & Zhang, 2013). Those reviews are also found to be more accurate and pleasant than the information that is produced and presented by organizations (Gretzal & Yoo, 2008). The online version of word-of-mouth differs from the offline variant, as the online information can be shared among many people on the internet, even with people that are not socially connected with each other (Gretzal & Yoo, 2008; Shin et al., 2018). The recommendations of former travelers that have experience with a particular product or service can not only be seen as the preferred source of pre-purchase information, but also the most influential during the decision making (Pan et al., 2007; Schmallegger & Carson, 2008). The influence of word-of-mouth is even more significant for experience goods as are the products in the tourism sector (Klein, 1998).This is because the quality of those products are uncertain (Chen et al., 2014; Lepp et al., 2011). The more people were exposed to online reviews of specific hospitality facilities, the more likely those people were to make use of those facilities (Sparks & Browning, 2011; Vermeulen & Seegers, 2009). Ye, Law, Gu and Chen (2011) investigated the influence of online UGC on business performance which for they used the data of a Chinese online travel agency and found that travel reviews have a positive effect on the sales of destination organizations. They found that a ten percent increase in travel review ratings will boost the online bookings by over five percent. For consumers, it is now more accessible to gather digitalized recommendations and reviews from friends, relatives and even strangers from all over the world through the internet (Li & Wang, 2011). However, some researchers found that recommendations

through the internet provided by total strangers result in some concerns about the credibility of the source (Cox et al., 2009).

The effects of eWOM can also have a negative influence on destinations and destination organizations, as it is an easy way to spread a complaint about a brand, while reaching a large audience in a small amount of time (Gelb & Sundaram, 2002). Before the internet era, less than five percent of the dissatisfied customers actually made a complaint (Albrecht & Zemke, 1985). Nowadays, one individual can have the power to damage powerful organizations (Buhalis, 2004). To prevent or minimize such damage, destination marketers should locate e-complaints in order to follow them up (Buhalis & Law, 2008).

### 2.3.3 Travel Blogs during the Three Phases of Traveling

The process of traveling can be divided into three phases: "preparation before a trip, travelling and post-travel activities" (Prestipino, 2006, p. 263). Tourists prepare for a trip by collecting information about possible destinations and eventually decide which destination or destinations they will visit during their trip. Tourists can also reserve or book an accommodation and look at attractions and activities in or near their destination, which they can visit or participate in during the trip. During this phase, the tourists will create a destination image based on the information they retrieve from other sources (Mackay & Fesenmaier, 2000). During their trip, tourists are able to participate in the activities or visit attractions which they may have found beforehand, and they will form a destination image as a result of the experiences they had while being at the destination (Mackay & Fesenmaier, 2000). The last phase is when the visit has ended and the tourists can portray their experiences to potential visitors. They can share their own destination image by uploading reviews. According to Del Chiappa (2001), the travel blogs play a role during all these three phases of traveling. Previous research shows that they influence the idea generation of the trip, the actual planning process and the post-travel phase. During the trip planning phase, the most popular online activities from tourists are looking at the stories and recommendations of other tourists on travel related blogs and forums to generate a destination image (Schmallegger & Carson, 2008). The reliance on the internet as a source of the collection of information during this phase of traveling has been growing (Navío-Marco, Ruiz-Gómez & Sevilla-Sevilla, 2018). A study has found that the influence of reviews on the decision making of tourists is more significant for products related to the accommodation than for other travel products (Gretzel, Yoo, & Purifory, 2007). The study of eMarketer (2007) confirms this, as 33% of the frequent leisure travelers altered their booking after reading reviews of other travelers. During their stay, tourists can give their comments on

from forums and blogs to get the latest tips and recommendations from other tourists. In the post-travel phase, when they get back from their trip, they share their experiences about the accommodation and destination by posting reviews, or uploading photos and videos on blog websites, destination websites and / or forums (Del Chiappa, 2009). Applying the functionalities of Parra-López et al. (2011) to the theory of Del Chiappa (2009), one could say that tourists are 'information searchers' in the pre-travel phase and during the trip, when they are searching for information of the destination and the travelers are 'information posters' if they write their recommendations and comments on a website or platform about their trip during the post-travel phase.

### 2.3.4 Travel Blogs and Destination Image

Previous research analyzed travel blogs of tourists to identify themes and associated concepts, to study the perceived destination image of a certain destination. Wenger (2007) found that the content of the blogs was homogenous and consistent and did not express a varied destination image. Destination images are dynamic and change over time. Tseng et al. (2015) found that blogs can be used to test whether a certain image is being supported or is already shifting. The study of Pan et al. (2007) shows that travel blogs are useful tools to determine the strengths and shortcomings of a destination.

Wenger (2007) studied blog entries about Austria to identify the positive and negative perceptions of the destination image. After that, she compared these findings with previous research into Austria's destination image, to establish similarities and differences between the travel blogs and Austria's tourism markets. She sought for themes that emerged about Austria in the travel blog entries and during the content analysis she focused on the themes: "season of visit, motives for travel, sights and attractions visited, services used, modes for transports, problems encountered in the journey and the images associated with Austria as a destination" (p. 172). During the study of Tseng et al. (2015), they studied the destination image of China perceived by tourists on English travel blogs. They identified the main concepts and ideas in the travel blogs, to identify themes. The nine themes they found were: "place, people, food, train, city, hotel, China and students" (p. 350). After naming the main themes, the study of Wenger (2007) identified the nature of the themes that derived from the content and identified the value associated with that theme. She checked manually whether the bloggers mentioned certain themes in a positive or negative way. Tseng et al. (2015) found that the more associated concepts a theme has, the richer the meaning the theme expresses. The researchers claim the main themes are the most influential aspects affecting international tourists' destination images of China. Pan et al. (2007) also studied travel blogs, but used content analysis, word frequency and semantic network analysis, in

order to find the strengths and weaknesses of Charleston as a tourist destination. The diagram of the semantic network analysis provided them clusters that showed which words were mentioned together. The network shows all the parts of the travel experience that represent the overall travel experience of the bloggers.

Destination marketers can make use of travel blogs for their marketing and sales practices, as travel blogs could provide such companies with authentic customer feedback about their experiences during their visitation. The analysis of this valuable information can be done in an inexpensive manner and will provide them the strengths and weaknesses of the destination (Pan et al., 2007). The analysis of travel blogs can help managers and marketers to better perceive the attitude of the tourist towards the destination image (Carson, 2008; Li & Wang, 2011; Wenger, 2008).

### 2.3.5 Local Residents and Destination Image

The destination image of local residents can play an important part for the creation of the development of a successful marketing strategy (Stylidis & Terzidou, 2014), as they have the role of "destination ambassadors" for the tourists (Stylidis et al., 2016). With their familiarity level of the destination, they can provide the tourists of recommendations of facilities and activities (Shani & Uriely, 2012). Taken the U&G theory into consideration, the credibility of the locals as a source is positive for the credibility of the information (Grewal et al., 1994. The study of Fairweather and Swaffield (2002) found that the experience of tourists and locals differ from each other by studying photographs of both groups. Sternquist-Witter (1985) found that the destination image of locals tend to be more positive than the destination image perceived by the tourists, he explained this with the "proud parent syndrome". This syndrome could be used during the marketing strategy of destination marketers. According to the study of Bandyopadhyay and Morais (2005) it is important that the promoted destination image to the potential tourists is in line with the destination image held by locals, as differences between those can lead to resentment of the local residents to the tourism industry.

## 2.4 Promotional Tourism Websites

### 2.4.1 Destination Marketing Organizations

The internet has been used for marketing practices by DMOs as hotels, airlines and travel agencies as it allows them to communicate their promotional messages to a chosen audience. The internet seemed to be well suited for the marketing of such organizations in the tourism sector because of the intangibility of its products as well as high price, risk and involvement levels (Stepchenkova &

Morrison, 2006). The evolution of technologies as the internet provides new opportunities for innovative advertising strategies, which is as well a challenge as an opportunity (Gretzel, Yuan & Fesenmaier, 2000). Kotler, Asplund, Rein and Haider (1999) defined place marketing as "a place planning procedure concerning the satisfaction of the needs of target markets. It could be successful when it satisfies two main parameters: a) The enterprises 'and the resident' satisfaction from the purchase of goods and services that the place provides, b) the satisfaction of the expectations of potential target markets (enterprises and visitors), as long as the goods and the services that the place provides to them are those that they wish to get". This thus requires the satisfaction of internal stakeholders as well as external stakeholders (Baker & Cameron, 2008). During the marketing planning of a destination, it is important that the potential tourists will be informed about the 'supply-side', everything the destination has to offer and to invite them to make use of it by promoting it (Ashworth & Voogd, 1988). The traditional promotion practices were based on the concept of the 4 P's, namely: product, price, promotion and place. In previous research, to adopt those concepts for tourism and hospitality marketing, they created 8P's by adding another 4 P's: partnership, people, programming and packaging (Pike & Page, 2014).

Travel intermediaries as tour operators and travel agencies are important for the promotion of a destination. They not only develop and sell destination packages, but they also provide information about the destination to the people and potential tourists. The last function is especially relevant for the tourists that have not visited the destination yet, as studies show that they rely on professional sources during their information search on the destination (Baloglu & Mangaloglu, 2001).

### 2.4.2 Government Tourism Websites

The information of government tourism websites is important for the promotion of the cultural image of a destination. Therefore, to attract more tourists, many destinations are designing government-sponsored tourism websites with information for tourists (Horng & Tsai, 2010). Mohammed (2004) studied small developing countries and found that 84% make use of official government websites. Of the analyzed websites, 35% were used in order to promote themselves at (potential) tourists. They were doing so by presenting themselves while trying to create a favorable image.

### 2.4.3 Promotional Tourism Organizations and Travel Blogs

The role of tourism organizations as travel agencies used to be dominant in the travel industry, but the internet has created more and more competition for these organizations (Wang & Cheung,

2004). As blogs are becoming increasingly popular (Li & Wang, 2011), it is becoming more important for travel agencies to adjust their strategy, as those blogs have an influence on decision making as well (Cox et al., 2009). The arrival and growing popularity of travel blogs is a challenge as well as an opportunity for tourism organizations. According to Law, Leung and Wong (2004), it should not be seen as a threat. They studied if the presence of internet would lead to elimination of tourism organizations as travel agencies. They studies this as the internet is not only a communication and distribution channel, but also a manner to directly book accommodations and activities from the supplier instead of through travel agencies. Blogs participate in this, as they often give tips with links to booking platforms (Huang, Yung, & Yang, 2011). Therefore, it becomes uncertain for travel agencies if they are still needed, as tourists are now able to easily assemble and purchase their travel products and services online. The study of Law et al. (2004) found that the travel agencies can preserve their business if they can be more than being simply a booking agency, but create value with giving personal advice online. The study of Huang et al. (2011) supported this conclusion and studied how travel agencies can use travel blogs for a competitive advantage. They found that combining the traditional marketing channels from travel agencies with e-commerce as travel blogs, can optimize consumer convenience and reach a bigger audience.

Travel bloggers write about their experiences with the destination and the organizations that they came in contact with (Sigala, 2010). Travel blogs could therefore identify the strengths and weaknesses of a destination and its marketers. It is crucial for DMOs to monitor the travel blogs related to their city to learn about the experiences of travelers with their city, their organization, as well as their experience with competitors (Schmallegger & Carson, 2008).

In a case study from Choi et al. (2007), they identified and compared the destination image of Macau from different online information sources. One of those sources was Macau Government Tourism Office (MGTO) which is the official tourism website of Macau. The other sources were categorized in blogs, magazines, guides and travel trade. They found that the MGTO website focused on other associations to attract tourists than the other website categories. In this case, the use of the words related to gambling were less frequently used on the official tourism website compared to the other categories. The government seems to want to extend the traditional association of gambling to a more wholesome image. The word 'museum' was ranked second on the list of most frequently used words on the MGTO website, while it was ranked sixth on travel trade websites and even lower in the other categories. Words that were related to conventions as 'facilities' and 'meeting' were only in the top 30 most frequent used words of MGTO websites, while they were not mentioned in the most

frequent words of the other categories at all. The official tourism website was much more focused on the destination image of Macau, where the other online sources as travel agencies and tour operators were mostly product oriented. The most used words across all the categories were: 'Portuguese', 'Chinese' and 'China'. Govers and Go (2005) analyzed online marketing sources for Dubai and analyzed texts as well as images. The content was derived from 20 websites of: 15 tour operators, three hospitality management companies, the Dubai destination marketing organization and the airline. They could only find four small clusters from the content, which were: 'Arabian Desert Experience', 'Jumeirah International World(class) Hotel Facilities', 'Golf Club' and 'Shopping Centre'. The remaining 14 most frequently words that were identified, could not be clustered into main themes. This was probably due to the fact that they were used in different settings and come from diverse information websites. The researchers concluded that their official tourism website emphasized on the promotion of the destination image rather than touristic products. Therefore, Lepp et al. (2011) stated: "official government tourism websites appear to be an ideal starting place for exploring the internet's potential to induce a favorable destination image" (p. 676).

Wenger (2007) recommends destinations to make use of travel blogs in their marketing strategy. She suggests that official tourism organizations can encourage specific bloggers to visit their destination, in order to write a blog about it. Another suggestion she gave is that they can post a link on their own website to relevant blogs, that will portrait them positively.

## 2.5 Destination Image of Rotterdam

Richards and Wilson (2004) studied the effect of a cultural event on the destination image in Rotterdam. They found that cultural events have a positive influence on the image of Rotterdam, at least immediately following the event. The image of Rotterdam that is identified most strongly by the respondents were the designative and tangible aspects of the city, such as 'modern architecture'. This is in line with the description of Russo and van der Borg (2002), who described the "aggressive modernity" of Rotterdam's architecture as the strongest trademark. Image components that describe the character of Rotterdam that Richards and Wilson (2004) found among their varied group op visitors were: 'multicultural', 'working city' and 'dynamic'. The appraisive-affective components of the image of Rotterdam scored lowest, which advert to that the city evokes a rather neutral affective response and image shaping has taken place at a more shallow and uninvolved level. According to the Netherlands Board of Tourism and Conventions (n.d.), the most used information source before planning a trip to the

Netherlands is experiences and appreciation of fellow travelers on the internet. For foreign visitors in

the Netherlands, 43% had used this source while planning their trip.

# 3. Methodology

A semantic network analysis and content analysis were performed to identify and compare the online destination image of the information sources. This has been done to answer the research question *"What is the relation between the online destination image presented by user-generated content and promotional tourism websites?"*

A semantic analysis was performed in order to capture the relationship between different concepts and explore the shared meaning. It is important to understand the relationships of the concepts, in order to determine the meaning of a concept. The semantic network analysis is a quantitative method which has been used during studies to analyze communication content (Pan et al., 2007). It provided this research with a useful framework for the analysis of meanings and impressions of Rotterdam as a tourist destination of the web sources. A most frequently used words table was derived from the analysis, which will indicate the perceived destination image of the information sources. A content analysis was performed to code the frequently used words and phrases into thematical categories. The coding of the most frequently used words will give an insight in which theme is mostly mentioned among the sources, which indicates the importance of the theme in destination image.

## 3.1 Research Design

This research was conducted in order to find the presented and promoted online destination image of Rotterdam. The online sources are divided in the sub-categories: tourists, locals, DMOs of Rotterdam and RTI. The online destination image of Rotterdam has been determined for these four categories to identify potential differences. This was done by analyzing travel blogs of tourists and locals and websites of DMOs and the municipality of Rotterdam. The data of these sources was analyzed using word frequency, a semantic network analysis and a content analysis.

### 3.1.1 Semantic Network Analysis

A semantic network is an automated network by quantitative measurements, which can be used for interpretation while using a quantitative analysis (Drieger, 2013). Turney and Pantel define semantic as "the meaning of a word, a phrase, a sentence, or any text in human language, and the study of such meaning" (2010, p. 141). A semantic network analysis is generated by texts (Monge & Contractor, 2003) and identifies the semantic relationships among words (Sowa, 1991) by identifying the distance, co-occurrence and frequency (Lee, Kim & Rosen, 2009). The network of the relations are presented in a graph, with nodes and edges. The nodes represent the concepts of the network (Drieger, 2013) and are

connected by lines that illustrate the nearness of occurrence of the concepts (Pan et al., 2007). The strongly connected nodes are bundled in a cluster (Drieger, 2013). The network indicates how concepts or clusters affect the others, within the data (Kazmer & Xie, 2008). Centrality measures indicates if the network is centralized or decentralized. When the network is highly centralized, it would show that a particular topic is discussed commonly and frequently within the online source. The opposite, a decentralized network, indicates that the network consists of predominant themes (Chow-White, 2006). In this study, the network visualized the most frequently used words for each information source, to interpret the key concepts and their relation.

### 3.1.2 Content Analysis

In studies examining the overall impressions and destination image in travel blogs, a content analysis is often conducted (Banyai and Glover, 2012). The analysis is used to systematically study the content of messages (van Atteveldt, 2008) and is defined as "a research technique for making replicable and valid inferences from text (or other meaningful matter) to the context of their use" (Krippendorf, 2018, p. 24). The content analysis is useful during online research when datasets contain a large amount of information (Chow-White, 2006). It classifies the text of the data into thematic categories that can reveal meaningful discursive properties (Bruce, 2004; Krippendorff, 2018; Turner, 1997). This method was used to identify the topics related to destination image on the internet. A coding scheme was created, based on the words produced by the semantic analysis and the literature sources. The analysis revealed the major themes that are present concerning the destination image of Rotterdam on the internet.

## 3.2 Data collection

For the four online information sources, different types of data collections were used. For the destination image of the tourists and locals, travel blogs about Rotterdam were collected. For the data of the city marketers, search engines were consulted and the official tourism website of Rotterdam was used to obtain the destination image of Rotterdam itself. Only the English texts of those sources were used in the analysis. All of the data was collected from the 6th up until the 26th of May.

### 3.2.1 Tourists

For the collection of the online data of the tourists, the blogs from http://www.TravelBlog.org were used, as this is known to be one of the most popular blogging website over the years (Khodadadi & O'Donnell, 2018; Pan et al., 2007; Tseng et al., 2015; Wenger, 2007). On this website, bloggers need to

create an account to be able to post the blogs about their travels. The bloggers can enter their personal information as their name, country of residence, age and travel motivation. Besides their email address, it is not necessary to provide the website with their personal information, which gives them the chance to post blogs anonymous or with a pseudonym. At the time this study was carried out (May, 2019), there were over 200,000 members registered at TravelBlog.org. The websites enables those bloggers to post their blogs for free and enables visitors of the website to review other blogs for free. The blogs are categorized in continent, country, region and city. For example, when searching for blogs about Rotterdam, one should choose, Europe, then The Netherlands, South-Holland and eventually Rotterdam. On this website, the blogs are ordered in reverse chronological order. In the blogs itself, one can post text as well as photos or other images.

While searching for blogs about Rotterdam, 95 blog entries were found. Of those blogs, some did not contain information about Rotterdam, as they were for example written while in Rotterdam, or by people that live in Rotterdam, but described a trip to city. Those blogs, together with the blogs written in other languages than English, were excluded from the study. After collecting all the blogs that were useful for the study, all the pictures and images in the blogs were removed. As some blogs described multiple cities in one blog, the information describing another city, was also removed from the data. This was done, since those text passages could affect the outcome of the research and would give an image of Rotterdam that actually belonged to another city. A total of 43 blogs were included in the data with an average of 567 words per blog. The most recent blog entry was from April 19th of 2019 and the oldest blog was from May 7th of 2005.

### 3.2.2 Locals

The website Spotted by Locals (www.SpottedbyLocals.com) provides a travel guide written by locals. The website describe locals as people that "live in the city they write about [and] speak the local language" ("Spotted by locals, about us", n.d.). Van Nuenen (2016) concluded that the website was focused on guiding the tourists to the less familiar places of a destination through recommendations of locals. According to Spotted by Locals ("Spotted by locals, about us", n.d.), they do so by blogging about their favorite spots, therefore this platform was used to collect the data to analyze the perceived destination image of locals. Spotted by Locals started in 2008 and provides recommendations by locals of 76 cities ("Spotted by locals, about us", n.d.). The website also has an app, where the tourists can find an offline map and tips, to navigate to the recommended places during their trip. It also allows its users to save their favorite places and locate them on the map, ("Spotted by locals, get the app", n.d). On the

website, the blogs can be found per city, which can be chosen on the home page. When the city is selected, the posts can be filtered by the categories: art & culture, music, shopping, bars, relaxing, snacks, cinema, restaurants, theaters and coffee & tea.

The most recent article of Rotterdam is from the 25th of May of 2019 and the oldest is from the 16th of October in 2017. Most of the blogs are written in 2019, as only 3 of the 154 blogs are from 2018 and 2017. Only the text was included in the data, the pictures and extra information with for example the opening hours, address and average prices were excluded as well as the data of the last update and the author. Three blogs were excluded from the data, as they did not discuss Rotterdam, but other cities or links to other blogs. The 151 blog entries that were included in the study had an average of 242 word per blog entry.

### 3.2.3 Destination Marketing Organizations

To collect the sample of websites from city marketers, the same technique was applied as the research of Choi et al. (2007). The lists of websites was collected through a search on Google with the search-terms: "Rotterdam Tourist Information", "Tour Operators Rotterdam", "Destination Rotterdam" and "Visit Rotterdam". From the websites that were provided by those search terms, the first 20 websites of each search-term were selected for the collection of the data (Choi et al., 2007). This was done as those websites are also the first to find for online travelers, when they are searching for activities in and information about Rotterdam. Only the page of the link that was found in Google was copied in the data, as many sites had only one page about Rotterdam. Of those 80 website pages, the links that were double, Dutch or irrelevant were excluded from the data. The pages that were irrelevant often only provided information about the organization that was located in Rotterdam and provided tours. Also, the webpages from Rotterdam Tourist Information were deleted, as those are included for the RTI subset.

The remaining 30 webpages are categorized in the following categories according to the websites' identities: destination management companies and tour operators (e.g. www.zoyotravel.eu); trip planning / travel websites (e.g. www.europeforvisitors.com); travel magazines (e.g. www.lonelyplanet.com); articles from news websites (e.g. www.cnn.com); travel guides (e.g. www.getyourguide.com). The destination management companies (DMC's) and tour operators are the companies that organize trips to Rotterdam or activities in Rotterdam. On their website, the tourists can book such tours directly with the company. The trip planning / travel websites are websites that give the tourists relevant information about the city and tips for activities and must sees. Most of the websites

provide its visitors with lists of 'top things to do or see in Rotterdam'. The websites of the travel magazines are the magazines made available online. There are also two articles of newspapers included in the study, the articles also provide information about Rotterdam for tourists. The last category is the category of the travel guides. Those websites shows its visitors many tours and attractions with the prices from other tour operators. The complete data set consists of those 30 webpages with an average of 991 words per webpage.

### 3.2.4 Rotterdam Tourist Information

Rotterdam uses a marketing agency to promote their city, this agency is called Rotterdam Partners ("Rotterdam Partners", n.d.). Rotterdam Partners does not provide promotion of Rotterdam on their own webpage (https://RotterdamPartners.nl/), but they own four websites that promote Rotterdam, all in different ways and/or for different target groups. 'Rotterdam. Make it happen.' (https://RotterdamMakeItHappen.nl/) posts Instagram stories of different Instagram users, which are made in Rotterdam. It is also possible to filter the posts, so the visitor of the website will only see pictures of topics as 'Winter', 'Skyline' or 'Architecture'. Two other websites are created to inform and help people that want to move to Rotterdam: 'Rotterdam Expat Centre' for foreign people (https://RotterdamExpatCentre.nl/) and '*Wonen in Rotterdam*' (Living in Rotterdam) for Dutch people (https://www.WonenInRotterdam.nl/). The website that is used to inform tourists is the website of Rotterdam Tourist Information (RTI) (https://Rotterdam.Info/). On this webpage, the visitors can find information about Rotterdam, such as the agenda with upcoming activities, practical information and blogs from other tourists and locals. As this website is focused on the attraction of tourists, this website was used in this study. The website can be set in an English or Dutch version, for this study the English version was used, as this study uses only English data.

The websites consists of different pages in the menu and only the relevant information to form a destination image about Rotterdam was collected for this research. The homepage of (https://Rotterdam.Info/) contained no relevant information, as there were only links to other departments of the website. The emergency numbers and dates with national holidays that could be found on the website are not included in the study. The page of 'Rotterdam and Surroundings' consisted mainly about information of attractions and activities in cities near Rotterdam, that information was not included in the data, as this research tends to study the destination image of solely Rotterdam. Hoek van Holland was included in the study, as that city is promoted as *the beach of Rotterdam* and they also have a Rotterdam Tourist Information Centre based in Hoek van Holland. The page 'location' provides the

visitors with information about the attractions and activities in Rotterdam, as well as its restaurants, shops and hotels. The locations were divided in the categories: architecture, attractions, city tours, for kids, must sees, nature and restaurants, so the visitors can easily choose which locations to see. For this study, all the categories were shown, which gave a result of 1034 locations and most of them provided a text with relevant information or a description. Some locations were located in other cities in the Netherlands, those locations were excluded. Most of the excluded locations were hotels or bars near Rotterdam as Vlaardingen or Schiedam, or big events in the Netherlands as The Keukenhof, which is in not based in Rotterdam. The locations in Hoek van Holland were included in the study, as Rotterdam promotes that city as the beach of Rotterdam and thus part of the city. Some of the locations were double posted on the website and those copies were removed from the data. Sometimes the English version of the website included some Dutch or Spanish text, this was also removed from the data. The last page on the menu of the website of Rotterdam were the blogs. All the nine English blogs were selected, but the information about the author was excluded from the data. The most recent blog was posted on the 23th of April of this year and the oldest blog is from the 16th of March of 2016. The information of the website was collected between the 6th and 8th of May.

## 3.3 Operationalization

The research question that this study is focused on is aimed to identify the relation between the online destination image perceived by user-generated content and promotional content. The travel blogs written by tourists and locals are the two categories that fall under the user-generated content and the websites of DMOs and RTI represent the promotional content. Before comparisons could be made and relations could be studied, the perceived destination image for each source should be analyzed. This was done by the conduction of a semantic network analysis of the top 25 most frequently used words. Words that would not contribute to the destination image were excluded from the analysis, so only the words that would add value to the destination image were included in the study. This meant that stop words and adjectives were removed from the data. Tang et al. (2011) referred to meaningful words as 'image variables of the destination image component' which are used to acquire a destination image from the separate sources. The semantic networks provide a deeper insight in the meaning of the words, as they visualize the semantic relationships. The meaning of the words is important to understand which topics are present on each source, as that creates the presented destination image.

After the semantic networks were analyzed separately, the most frequently words that had derived from the data were coded and a coding tree was generated per source. The coding was done

subjective according to the categorization of the codes of previous research (Pan et al., 2007; Tang et al., 2011) and the semantic network that was provided. The words 'bike' and 'bus' were coded as 'attractions and activities' instead of 'transportation',  as those words were regularly closely related to 'trip' and 'tour' in the semantic networks, which implies that those means of transportation were mentioned as a manner to experience the a tour. The words 'boat' and 'ship' that appeared in most frequently used words of the tourists, were coded as 'accommodations' instead of 'transportation' as the reading of the data learned that the tourists used these words while describing their accommodation, rather than a transportation method. The themes that derived from each source, have split the destination image per source into themes. The themes of the separate sources were compared in order to compare the destination image per source and capture the relationships.

# 4. Results

This section will present the semantic networks that were generated by the data of the destination information sources: tourists, locals, DMOs and RTI. These networks were generated to visualize the relationships of the most frequently used words for each source. The table with the most frequently used words in rank order per source will also be presented and analyzed using content analysis. The results of the content analysis will give a better insight into the destination image of Rotterdam for each category. This study sought to analyze the presented destination image of various online sources to find possible differences in the presentation of Rotterdam between the sources, to find improvements for the marketing strategy of city marketers.

The destination images between official government tourism website differ from the destination image presented on other online information sources, as UGC and DMOs. The reason for this is that those government promotional websites want to present an ideal image for its visitors (Lepp et al., 2011). Previous research also found that locals tend to have a more positive destination image than the visitors, as a result of the "proud parent syndrome" (Sternquist-Witter, 1985). This research will test if those theories also apply in the case of the textual online destination image of Rotterdam.

## 4.1 Semantic Network Analysis and Word Frequency

The visualization tool that was used to generate a semantic network, VOSviewer, works with an automated generation process. The network that was created has nodes with the size based on the frequency that the word appears in the data. The edges link the concepts that are frequently mentioned together and the size of the edge represents the strength of the link. The clusters are the words that are often used together in the data and can be recognized by the color, as each cluster has a different color (Van Eck & Waltman, 2019). The semantic networks are created with the 25 most used words for each source. The network presents the semantic relationship between those words through links, also known as edges.

## 4.1.1 Semantic Network of the Blogs from the Tourists

The network of travel blogs written by tourists can be seen in figure 4.1.1 and consists of the 25 most frequently used words which are divided into four prominent themes (clusters). The most prominent nodes in the biggest cluster (the red cluster) are 'train', 'station' and 'hostel'. Tourists write about their arrival in Rotterdam by train and mention going straight to the hostel. One of the bloggers mentioned in the blog entry: "[…] we arrived at the under-construction Rotterdam Centraal station and
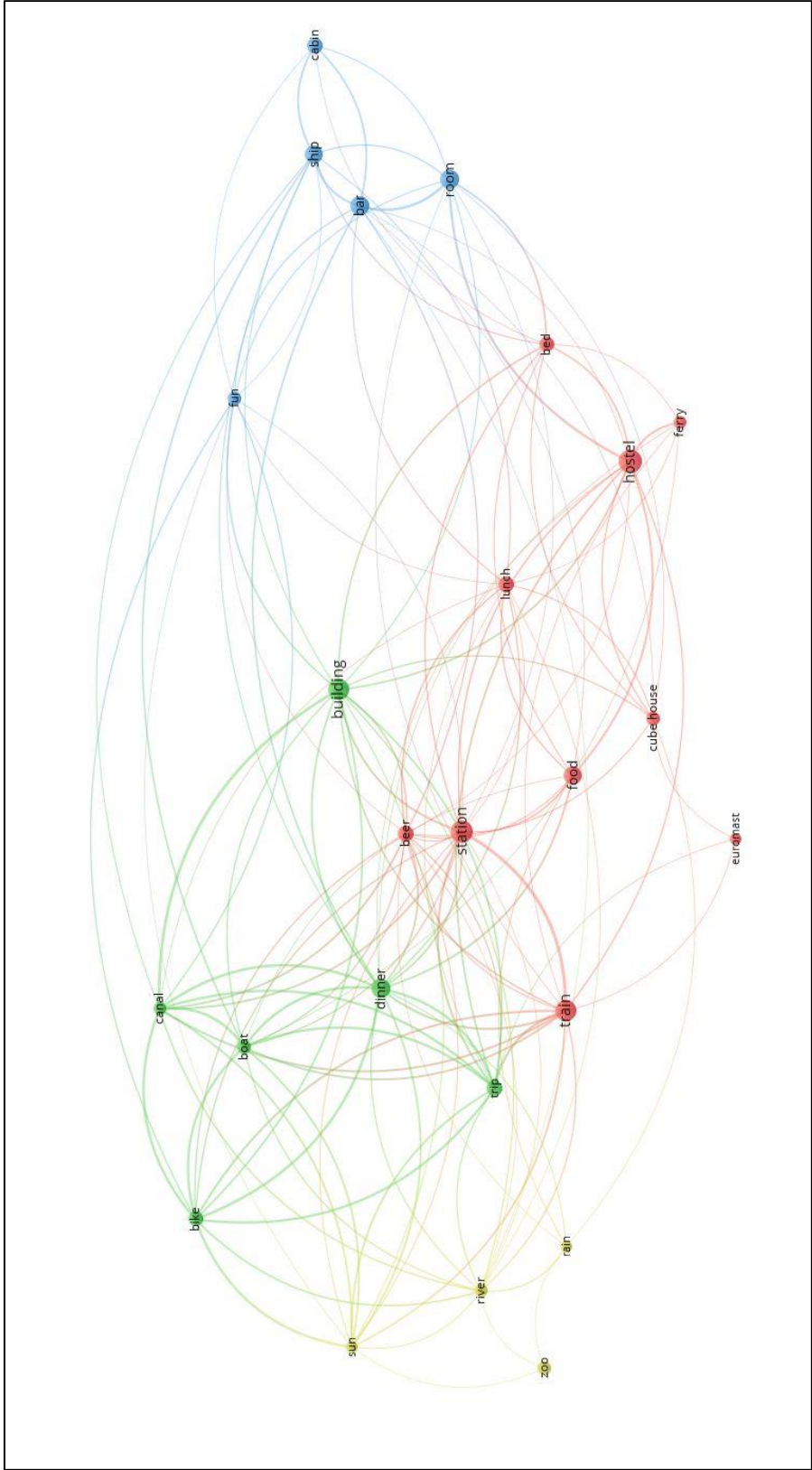
*Figure 4.1.1: Network of tourists, Number of Nodes = 25, Number of Edges = 136, Clusters = 4*

took [...] the right tram to the hostel". Other words in this cluster are related to attractions in Rotterdam as 'Cube house' and 'Euromast'. The most prominent word in the green cluster of the semantic network is 'building',  but the cluster also mentions 'trip', 'bike' and 'boat' which could indicate the experience of a trip or tour by bike or boat to see buildings in Rotterdam. The confirmation of this statement could be found in the data as tourists mention: "We rode our bikes into Rotterdam's city center for a bit of a look around" and "[...] just in time for our boat trip. We boarded one of those super touristy tour boats". The blue cluster is related to the accommodations and consists of words as 'cabin' and 'room'. After reading the data of the tourists, it became clear that a lot of tourists visited Rotterdam on a (cruise) ship, which is why 'ship' and 'cabin' are related to the accommodations of the tourists. In the next passage, a blogger describes his room on the ship: "Our cabin was an interior meaning it was on the inside of the ship and did not have a window looking out". The yellow cluster consists of four equally mentioned nodes and correlated to concepts that can be experienced outside as 'zoo' and 'river' and weather conditions as 'sun' and 'rain'. This could indicate that the tourists mention the weather conditions while describing an outside experience as can be seen in the following passage from the data: "We [...] sat in the sun for an hour as we drifted down the Maas river".

## 4.1.2 Semantic Network of the Blogs from the Locals

The network of the semantic relations that are derived from the travel blogs written by locals are presented in figure 4.1.2. The two nodes that are most prominently represented in the middle of the network are 'food' and 'restaurant'. Those two nodes are in the red cluster, which is related to the theme of food and beverages. The blue and yellow clusters also represent the main theme of food and beverages, with respectively 'beer' and 'menu' as words that most occur. The word that most appeared in the data of the green cluster of the semantic network is 'bar'. Other words in the cluster that are related to 'bar' are 'music' and 'party', which are connected as parties could take place in a bar with some music.  An example that shows the connection between the words was found in the data: "In the nighttime the bar turns into a great place to party!" More words in the green cluster which are linked to each other are 'bike' and 'park', with an example from the blog of the locals: "[...] this park lies at the southside of the city. [...] it is a twenty-minute bike ride from the city center."

## 4.1.3 Semantic Network of the Websites of the Destination Marketing Organizations

In figure 4.1.3, the semantic network of the websites of the DMOs is presented. The most prominent word of this data is 'tour' and can be found in the red cluster. Most of the words in the cluster are mainly focused on attractions and activities, which are recommended for the tourists. This is
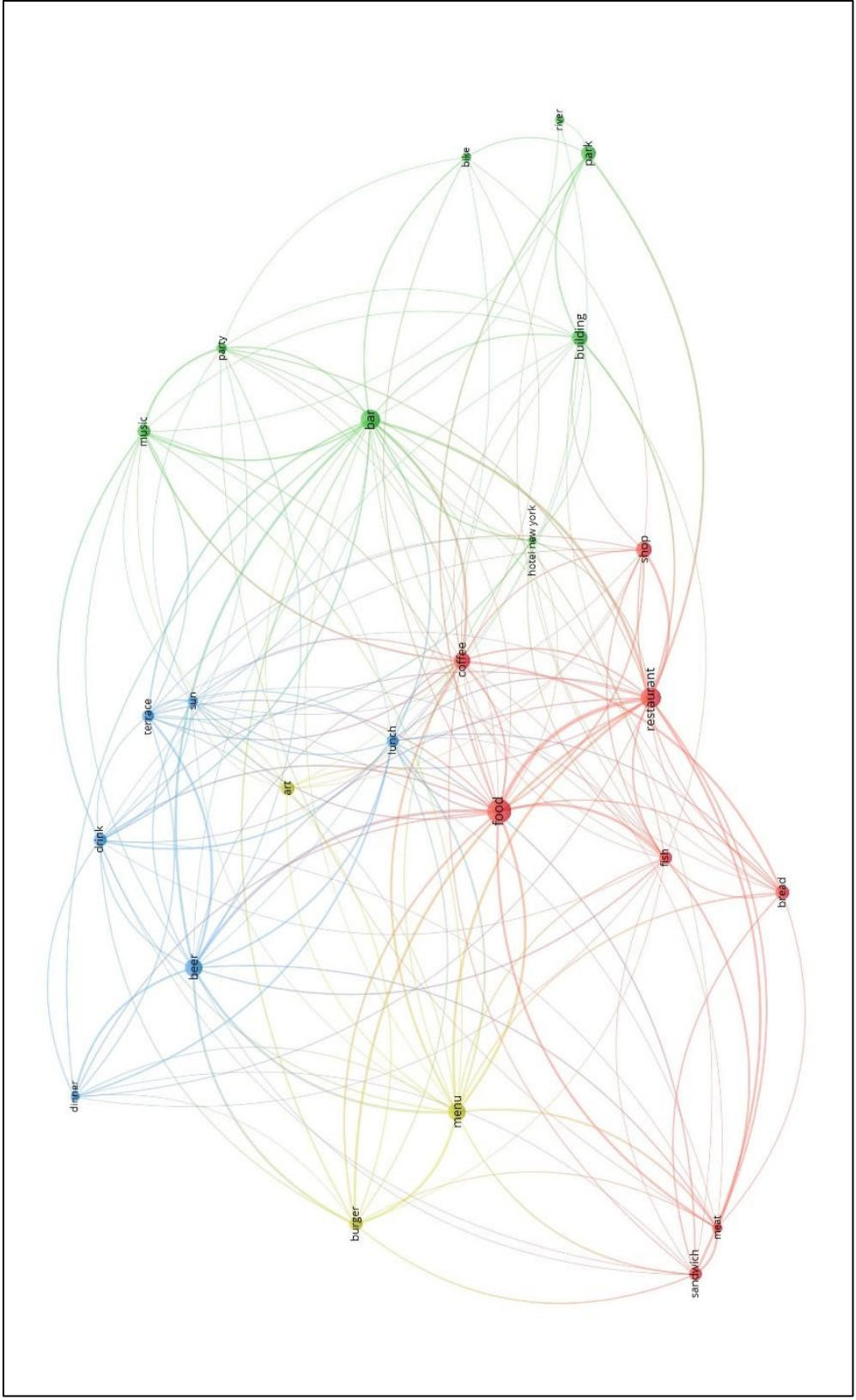
*Figure 4.1.2: Network of locals, Number of Nodes = 25, Number of Edges = 174, Clusters = 4*
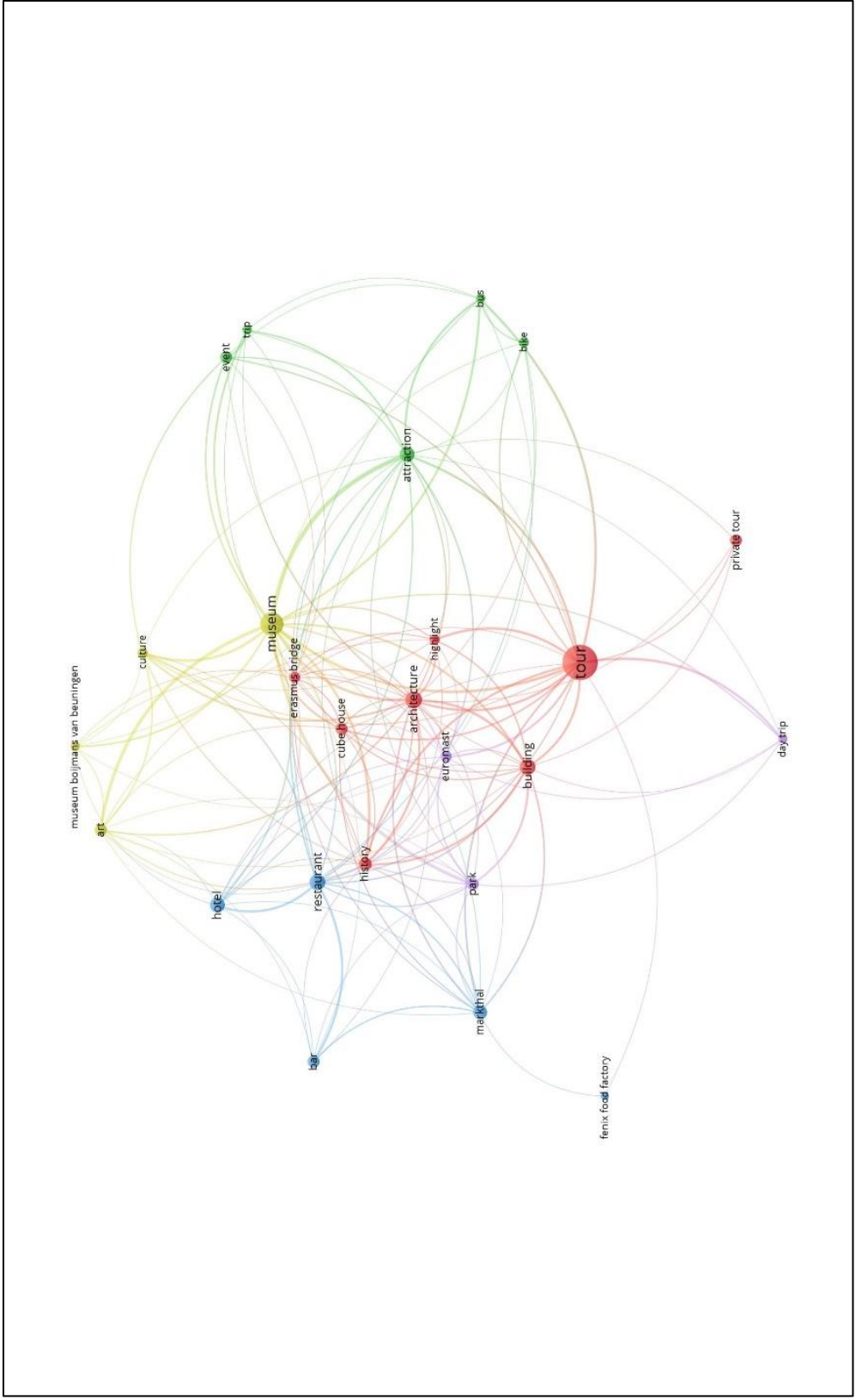
*Figure 4.1.3: Network of DMOs, Number of Nodes = 25, Number of Edges = 149, Clusters = 5*

was to be expected for the data of the DMOs, as they are focused on selling tours to tourists. The red cluster is focused on specials highlights in Rotterdam, where 'highlight, 'Erasmus bridge' and 'Cube house' are in that cluster. This is found in the data with the following sentence: "Famous architectural highlights are the Erasmus Bridge, Van Nelle factory, Cube houses, Euromast, and Kop van Zuid." The green cluster provides the type of transport that can be used during the tour to see the attractions as 'bike' and 'bus'. These vehicles are often mentioned during the promotion of a trip along attractions, as can be seen in the next example of the data: "Add to that the many attractions and city tours – by bike, bus, boat or on foot – and you understand why Rotterdam was voted Lonely Planet's Best in Travel 2016." The blue cluster is mainly about activities in combination with food and beverages, as it mentions two attractions where they sell food ('Fenix food factory' and 'Markthal'). The yellow cluster contains activities related to art as 'Museum Boijmans van Beuningen' and 'museum'. This combination of words is used during the promotion of museums in which art can be seen. This can be seen in the following sentence from the website of a DMO: "Culture lovers can visit leading museums in Rotterdam such as Boijmans - Van Beuningen, the World Art Museum, the Kunsthal exhibition center and many more." The purple and smallest cluster is similar to the first cluster as it also contains words related to attractions and activities in Rotterdam containing one highlight ('Euromast') and 'day trip'.

### 4.1.4 Semantic Network of the Website of Rotterdam Tourist Information

The semantic network of the website of RTI can be found in Figure 4.1.4. The biggest cluster (the red cluster in the network) consists of items related to things that can be done and seen in Rotterdam as 'architecture', 'art', and 'tour' and can be categorized as attractions and activities. These words are often mentioned together to let people know what Rotterdam has to offer. The following sentence is an example that was found on the website of RTI: "Making Rotterdam Tourist Information your starting point, you can discover the full scope of what Rotterdam has to offer: arts & culture, architecture, festivals and events, attractions, the most beautiful spots and areas to live, shops, hotels and restaurants." Words that also appear in the red cluster and are strongly linked together are 'hotel' and 'room'. These words are often mentioned together when more details about hotels are given, as in the next example: "The hotel offers 147 comfortable rooms, an a la carte restaurant, a hotel bar and fitness facilities." The green and blue clusters mention words related to food and beverages as 'coffee', 'breakfast' and 'restaurant'. 'Restaurant' is the biggest node in the network, which means that this is the most mentioned word in the data. The following is an example of the green cluster, where the words 'breakfast' occurred with 'coffee': "At Fröbel you can enjoy a cup of good coffee, breakfast, lunch or a piece of cake in a friendly atmosphere." The word 'breakfast' is also strongly related to 'bar', as
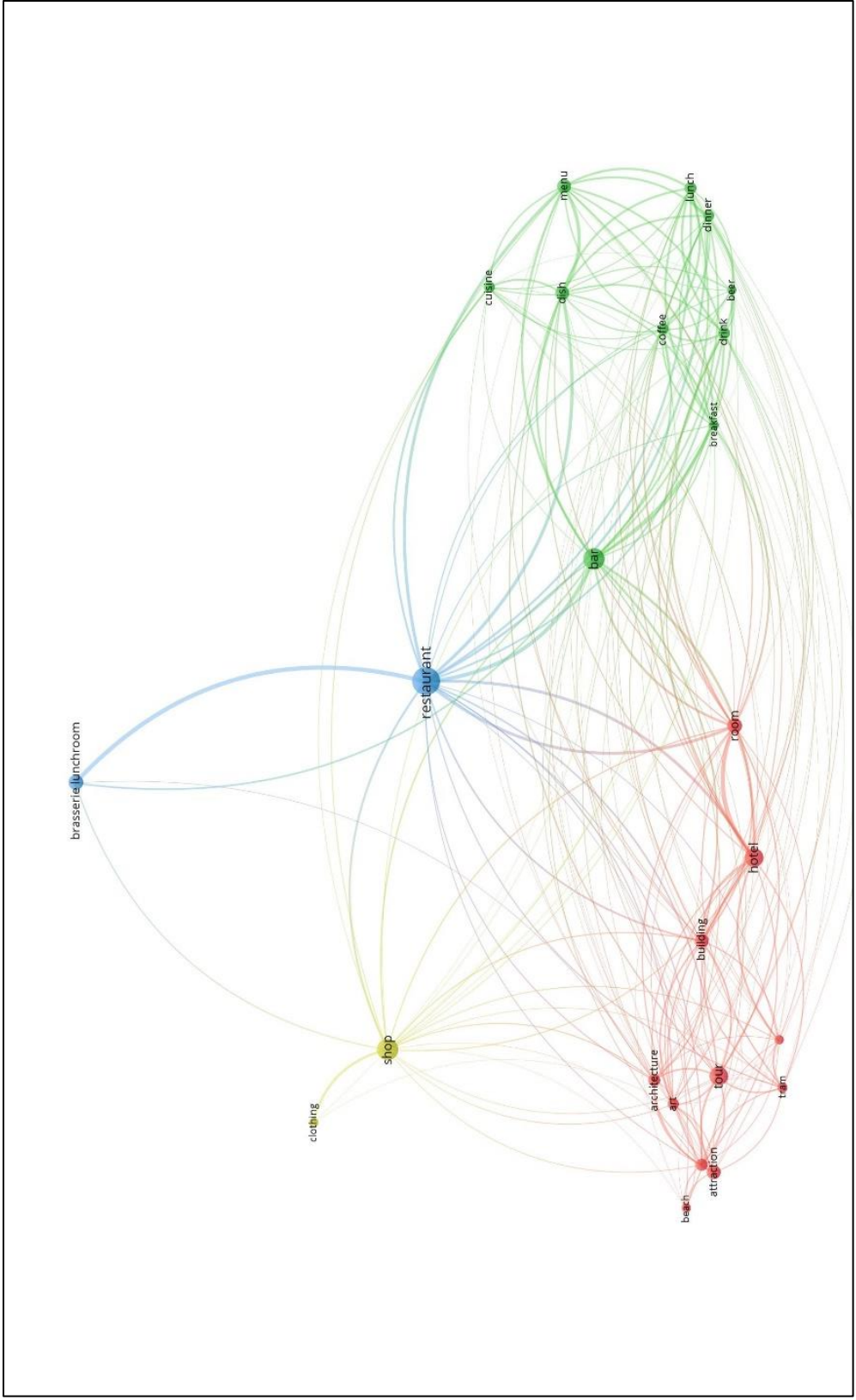
*Figure 4.1.4: Network of RTI, Number of Nodes = 25, Number of Edges = 210, Clusters = 4*

breakfast is available at the bars: "A breakfast buffet is served and guests can enjoy an evening drink in the hotel bar." The yellow and last cluster consists of two words: 'clothing' and 'shop' and are related to shopping activities.

## 4.1.5 Frequency List of all the Sources

Table 4.1.5 displays the top 25 most frequently used words for each online destination information source. The separate tables for each source with the frequency of the words can be found in appendix A. The most frequently used words represent 15.38%, 19.37%, 26.46% and 35.48% of the total data of respectively the tourists, locals, DMOs and RTI. This indicates that more data is covered in the most frequently used words and phrases list, and thus the coding categories, of the RTI and that the tourists mention more variety of words and possibly topics in their travel blogs then the other sources. After taking a closer look at the data of the tourists, there can be concluded that tourists mention a lot about their personal experience with Rotterdam. This can be seen in the following examples: "So three out of the four of us were walking through the streets of Rotterdam after dark, carrying a mattress on our heads" and "My cousins arrived on Tuesday and so now we are again having a small family reunion, this time in Holland". These passages show that tourists not only mention the general stories about Rotterdam but also personal stories they have experienced during their visit.

Words that appear high in the top 25 of the tourists are 'hostel', 'station' and 'train', but those words are not to be found in the top frequently used words of any of the other sources. In the top 25 of RTI, 'hotel' is in the fourth place and 'Rotterdam Central Station' is on the 25th place, which are related to the words mentioned in the data of the tourists. This implicates that accommodations and transportation are important themes for tourists, while they are not as dominant for the other sources. The table with the most frequently used words or phrases (table 4.1.5) shows that the column of the tourists is the only column with the words 'ship', 'cabin' and 'boat' in it. Further investigation in the original data, presented that those words were often mentioned by the tourists as a form of their accommodation.

The words 'food', 'restaurant', 'bar', 'beer', 'menu' and 'coffee' are all in the top ten of most frequently used words in the travel blogs of the locals, which indicated that they frequently mention places to eat and drink. Although these words are all mentioned in at least one of the three other top 25 most frequent words of the other sources, the travel blogs of the locals is the only source which has the word "terrace" in the top 25. This indicates that this source mentions the topic of places to drink and eat in more detail than the other online sources.

*Table 4.1.5: Most frequent words or phrases in rank order per online destination information source*

|    | Tourists   | Locals         | DMOs                        | RTI                          |
|----|------------|----------------|-----------------------------|------------------------------|
| 1  | Hostel     | Food           | Tour                        | Restaurant                   |
| 2  | Station    | Restaurant     | Museum                      | Shop                         |
| 3  | Building   | Bar            | Architecture                | Tour                         |
| 4  | Train      | Beer           | Building                    | Hotel                        |
| 5  | Bar        | Menu           | Restaurant                  | Bar                          |
| 6  | Dinner     | Coffee         | Hotel                       | Brasserie Lunchroom          |
| 7  | Room       | Building       | Attraction                  | Room                         |
| 8  | Food       | Shop           | Markthal                    | Dish                         |
| 9  | Ship       | Park           | History                     | Building                     |
| 10 | Beer       | Art            | Art                         | Menu                         |
| 11 | Cabin      | Bread          | Bar                         | Attraction                   |
| 12 | Lunch      | Music          | Park                        | Architecture                 |
| 13 | Trip       | Burger         | Cube house                  | Drink                        |
| 14 | Bed        | Drink          | Private tour                | Museum                       |
| 15 | Bike       | Fish           | Event                       | Lunch                        |
| 16 | Zoo        | Sandwich       | Erasmus bridge              | Cuisine                      |
| 17 | Boat       | Terrace        | Euromast                    | Dinner                       |
| 18 | Cube house | Lunch          | Bike                        | Art                          |
| 19 | Fun        | Meat           | Culture                     | Coffee                       |
| 20 | Canal      | Party          | Highlight                   | Breakfast                    |
| 21 | Ferry      | Sun            | Museum Boijmans van Beuningen | Tram                       |
| 22 | River      | Dinner         | Trip                        | Clothing                     |
| 23 | Euromast   | Bike           | Bus                         | Beer                         |
| 24 | Rain       | River          | Day trip                    | Beach                        |
| 25 | Sun        | Hotel New York | Fenix food factory          | Rotterdam Central Station    |

The top 25 most frequently used words of the DMOs are the only one that mentioned specific attractions in Rotterdam as 'Markthal', 'Cube house', 'Erasmus bridge', 'Euromast' and 'Museum Boijmans van Beuningen'. Most of the other sources, do not mention specific attractions like such, except for the tourists that have the 'Cube house' and 'Euromast' in their top 25 of most frequently used words. This can indicate that those attractions are most popular among the tourists, which can be useful information for the DMOs in Rotterdam.

The official website of the marketing of Rotterdam is the only data that contains 'beach' in the most frequent words list table. RTI regards the beach of Hoek van Holland as a part of their city and mentions this on their website. The fact that this is not mentioned among the tourists, could be a result of the fact that the weather conditions were not good enough to visit a beach while the tourists where

here, or the promotion of the beach was not visible to the tourists or not important as they would not visit Rotterdam to go to the beach.

## 4.2 Content Analysis

The total table of the coding categories and the percentages of mentions per source can be found in table 4.2. The coding trees for each source can be found in appendix B. The data of the tourists is represented in five of the six themes that derived from the most frequently used words and phrases list. This indicates that tourists mention most topics in their stories instead of focusing on specific themes. The differences among the representation of the themes in the data is small, as the most represented theme of the tourists represents 4.24% (accommodation) and the least represented theme 1.79% (overall impression). The theme that is not present in the most frequently used words of the data is shopping. Overall, the travel blogs written by tourists represent the total travel experience of tourists.

The theme that is most present in the data of the locals is the category of food and beverages, which represents 13.52%. After reading the data of RTI, most of those terms were present on the page that provides tips and recommendations for locations in Rotterdam. The most recommendations contained restaurants and food related locations. The themes of accommodation and transport are not mentioned in the most frequently used words list of this source, which indicates that locals do not write about these topics frequently. The fact that accommodation did not arise in the results of the locals, is as expected as locals do not make use of hotels or other accommodation as they already live in the city. The theme shopping is mentioned in the data of the locals, but not very often as it only represents 0.96%.

The websites of the DMOs in Rotterdam, mainly mention attractions and activities in the words that they use most frequently, as 21.01% of the most frequently used words in the data belong to that theme. This is as expected, as the DMOs are focused on selling tours and tickets of such attractions. The themes of accommodations (1.17%), food and beverages (2.05%) and overall impression (2.23%) are significantly less present in the most frequently used words, which implies that these are less important for DMOs. The themes shopping and transport are not present in the most frequently used words of the data.

The data of the RTI is represented in all of the themes from the coding scheme, but one theme is more present than the other themes. The theme that is most present in the total data set of RTI is food

and beverages which represents 17.79%. The theme that is least present in the RTI content is the overall

impression, which only represents 0.60%.

*Table 4.2: Coding categories and percentage of mentions for each source*

| Code | Source | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|
| Accommodations | | | |
| | Tourists | 4.24% | 27.60% |
| | Locals | - | - |
| | DMOs | 1.17% | 4.41% |
| | RTI | 4.01% | 11.30% |
| Attractions and Activities | | | |
| | Tourists | 3.65% | 23.73% |
| | Locals | 2.73% | 14.11% |
| | DMOs | 21.01% | 79.43% |
| | RTI | 8.06% | 22.72% |
| Food and Beverages | | | |
| | Tourists | 3.57% | 23.24% |
| | Locals | 13.52% | 69.80% |
| | DMOs | 2.05% | 7.74% |
| | RTI | 17.79% | 50.15% |
| Overall Impressions | | | |
| | Tourists | 1.79% | 11.62% |
| | Locals | 2.16% | 11.14% |
| | DMOs | 2.23% | 7.74% |
| | RTI | 0.60% | 1.68% |
| Shopping | | | |
| | Tourists | - | - |
| | Locals | 0.96% | 4.95% |
| | DMOs | - | - |
| | RTI | 3.72% | 10.48% |
| Transport | | | |
| | Tourists | 2.12% | 13.80% |
| | Locals | - | - |
| | DMOs | - | - |
| | RTI | 1.30% | 3.67% |
| Word frequency of words in top 25 | | | |
| | Tourists | 15.38% | 100.00% |
| | Locals | 19.37% | 100.00% |
| | DMOs | 26.45% | 100.00% |
| | RTI | 35.48% | 100.00% |

# 5. Conclusion

This study focused on the destination image that is presented online, and the differences of the images between content generated by users and the content generated by destination marketers. The internet has empowered consumers as they are now able to share their recommendations with other internet users. As UGC influences the destination image and decision making, this content is important for destination marketers. Previous research had focused on the online destination image perceived and presented by tourists, DMOs and official government websites. This study combined these sources and included the online destination image of locals. This research focused on how the online destination image of Rotterdam is presented by tourists, locals, DMOs and RTI and compared the findings. The online presented destination image is important as the internet is most consulted to obtain information about a possible next destination for a trip. The information that is collected, will influence the destination image of the future tourists and thus the decision making during the trip planning. To investigate the possible differences in destination image of various online sources, data was collected concerning the destination image of Rotterdam.

## 5.1 Discussion and Conclusion

The results of this research provided information about the destination image presented by tourists, locals, DMOs and the official promotion website of Rotterdam. The information sources that were used as data in this research can be used by potential visitors to create a destination image. Previous research found that the more concepts are present in a theme, the richer the meaning of the theme expresses (Tseng et al., 2015). This will be applied to the results that were found in the data sources to answer the sub-question: *"How is the destination image presented online by the various information sources?"*

The analyzed travel blogs of the tourists, provided a varied destination image of Rotterdam, as five of the six themes are present. This implies that the tourists value the themes that resulted from the content analysis and express a varied destination image of Rotterdam. This is not in line with findings of previous research where tourists did not express a varied destination image, but a consistent one (Wenger, 2007). The destination image of Rotterdam perceived by tourists presents the following themes: accommodations, attractions and activities, food and beverages, overall impression and transport. There are no significant differences in the richness of these themes, as the concepts of the frequency list are almost equally spread across the themes.

The data that has been analyzed regarding the travel blogs of the locals, provided the result that the focus of the locals is mainly on the theme related to food and beverages. Most of the frequently used words from the data were related to this theme. Also, the fact that some food-related words only appeared in the top frequently used words of the locals, indicate that locals talk in more detail about this subject. The destination image that is presented online by the locals is mainly food and beverages related. None of the most frequent used words belong to the themes: accommodations, attractions and activities and transport. The fact that the theme accommodation did not arise from the data set of the locals was as expected, as locals live in the city so they do not have any experience with accommodations. Information about the transportation system and options in Rotterdam of the locals could be relevant information for the tourists. Locals that make use of transportation as the metro, tram and train regularly, could have valuable tips for tourists that want to make use of those transportation options. The fact that the locals do not write about the transportation system in Rotterdam could lay in the fact that the writers do not use public transport regularly, or it is not interesting enough for them to write about.

The most centralized network of the four sources is the one that is derived from the data of the DMOs about Rotterdam. The most present node in the network is the word 'tour', which could have been expected as DMOs promote and sell tours. Most of the most frequently used words belong to the theme attractions and activities and it also includes words that are not present in the lists of the other sources. This implies that the theme attractions and activities is the richest theme concerning the destination image of Rotterdam for the DMOs.

The analyzed data of the official promotional website of Rotterdam describe various themes of the destination image of Rotterdam. The 25 most frequently used words of this source are present in all the themes of the total dataset, except for the theme regarding overall impressions. The fact that RTI was not present in this theme could imply that the website is mainly focused on providing information about the city. Even though accommodations, attractions and activities, food and beverages, overall impression, shopping and transport are all part of the destination image of Rotterdam presented by RTI, the richest theme in the dataset of RTI is food and beverages.

The most popular attractions of Rotterdam that were mentioned in the theory section are Diergaarde Blijdorp, Spido and the Euromast ("Groei toerisme in Rotterdam blijft aanhouden", 2019). Two of those top three attractions were not frequently mentioned in any of the analyzed sources. The Euromast did show up frequently in the data of the tourists and the DMOs. The differences could lay in

the fact that the content that was collected for this data is outdated. The oldest blog entry of the tourists that was included in this study was from 2005, where interests could have been different. Previous research had also found that architecture plays a big role in the destination image of Rotterdam. Richards and Wilson (2004) found that respondents identified Rotterdam as 'modern architecture'. Russo and van der Borg (2002) described the "aggressive modernity" of the architecture as Rotterdam's most important characteristic. This was not found in the analysis, as only the two sources DMOs and RTI, mention architecture in the top 25 most frequently used words list. This could be the result of previous findings that official government tourism website emphasize the promotion of the destination image rather than touristic products (Choi et al., 2007). The word building that can be related to architecture, can be found in all the information sources used for this analysis. Other words that appear in the table with the most frequent words or phrases that are related to architecture are attractions as the cube house, Euromast and Rotterdam Central Station. The table of the most frequent words or phrases per online destination information source that are related to architecture can be found in appendix C. This research found that architecture is not the most important image related to Rotterdam anymore. This confirms the findings of previous research of Tseng et al. (2015), who stated that destination images change over time as they are dynamic.

To answer the research question: *"What is the relation between the online destination image presented by user-generated content and promotional tourism websites?"* the following could be concluded. The destination image of tourists is the most varied of all the sources that were included in the study, as the tourists are present in five of the six themes that derived from the total data set and the words are almost equally spread among the themes. The theme that is marginally more represented in the blogs of the tourists is the theme regarding the accommodations. This theme is not at all represented in the data of the locals. The destination image of the locals is focused on the theme 'food and beverages' as this theme is the most present in the data of the locals of Rotterdam. This is the same as the theme that was found in the data of RTI. Even though the data of the RTI result in a broad destination image, as it is present in six of the six themes, the destination image is mainly food and beverages. The DMOs mainly present attractions and activities on their websites. This theme is not present in the most used words of the locals.

According to Bandyopadhyay and Morais (2005), it is important that the promoted destination image is in line with the destination image held by the locals. The online destination image of the locals of Rotterdam and the RTI are similar to each other, as both sources emphasize their focus on food and

beverages. The destination image of locals and DMOs differ from each other, which could result in resentment of the locals towards the organizations (Bandyopadhyay & Morais, 2005). DMOs should, therefore, take this into consideration and include more themes that the locals find important. According to the U&G theory, information is being perceived as more credible when the information is consistent (Zhang & Watts, 2003). It is therefore important that the presented information of all sources are in line with each other, to be perceived as a reliable source.

This research found that the top 25 most frequently used words of the blogs written by tourists, represents the least of the data in comparison with the other sources. The reason for this possibly lies in the fact that tourists tell a story an include personal experiences while explaining that story. Hsiao, Lu & Lan (2013) found that narratively stories are more powerful and help readers to recognize the writers' feelings. Attitudes of readers can be influenced by narrative structured blogs through the development of their empathy. The influence of the destination image will, therefore, be increased when travel blogs are written in a narrative structure.

## 5.2 Practical Implication

Analyzing the content of tourists can help marketers to understand their attitude toward the destination (Carson, 2008; Li & Wang, 2011; Wenger, 2008). The destination image that was found in the travel blogs of the tourists will, therefore, be used to answer the last sub question. It will help to better understand how tourists experienced Rotterdam and shows which themes they find important while visiting Rotterdam. The results of this research, are being used to answer the second sub question: *"How is the content generated by locals useful in the marketing strategy of destination marketers?"*

One aspect that is not very present in the destination image of the locals currently, is the theme of attractions and activities. Locals are not describing words related to that theme often in their current blogs, but according to (Akehurst, 2009; Nikolinakou & King, 2018) reviews from users are more reliable than advertisements of organizations. Locals also tend to be more positive about the country or city that they live in, due to "proud parent syndrome" (Sternquist-Witter, 1985). Organizations that sell tours and tickets related to attractions and activities could benefit from reviews of the locals. DMOs could, therefore, work together with locals as influencers, so locals recommend certain attractions and activities in their blogs, as those are perceived to be better marketing. DMOs could offer certain tours to locals with a discount or for free, in return for a blog entry, which they can promote on their website as well. This way, the DMOs are able to influence which attractions or tours are being promoted. One downside by giving away free tickets is that the locals could be 'bought' to write positive articles about

the attraction or tour. The DMOs that approach tourists to write about a certain topic, should therefore ask them to write honest reviews rather than positive reviews that are not true.

The data of RTI shows that their website does not present much information about the transportation system in Rotterdam. As the website of RTI is focused on giving tourists advice and practical information, it could be useful to add more information about this online. As locals of Rotterdam use the public transport in their city, they could play an advisory role in providing this information. The locals do not write about transportation in their current blogs, so RTI should try to include locals on their website who could write about transportation in their city. They could do so by advertising in public transport to encourage locals to write about the public transportation system in Rotterdam to help the tourists. This way, they reach the locals that use the public transport in Rotterdam. The advertisement should intrinsically motivate locals to help tourists using the transportation system, or Rotterdam could give something in return to the locals. This should not affect the credibility of the articles, as the blog entries concerning transportation are more about giving advice and tips, rather than reviewing the quality of the public transport.

One pitfall of the blogs that should be taken into consideration for these strategies, is that the recommendations are truly recommendations from the locals and not from a 'fake blogger'. It is not easy to distinguish fake blogs with promotional recommendations from real blogs with genuine recommendations. Companies as the DMOs and the government might play a role in this, by making use of their reliable website. For example, a website that is being perceived as a reliable recommender of restaurants in Rotterdam, could in their articles about those restaurants recommend certain blogs about those restaurants, written by locals. The readers will believe the blog they recommend is not a fake blog, as they are a credible source for restaurants (Grewal et al., 1994). Another aspect that will generate a more positive attitude of the readers, is the argumentation quality (Cheung et al., 2009). Organizations should therefore recommend the bloggers to give arguments for the opinion in their blogs, in order to increase the argument quality.

## 5.3 Limitations and Future Research

This study has been subject to several limitations. The categorizing of the most frequently used words was done in a qualitative manner and has therefore been a subjective process. The coding was done by one person and was not checked by a second researcher. Although previous research was used during the coding process, future research could test its reliability, by including one or two extra researchers during the coding process (Miles & Huberman, 1994; Alhojailan, 2012).

Another limitation of this study is the fact that it did not include the adjectives in the analysis. The adjectives could play a big role in analyzing the travel blogs, as those could also speak negatively about some attractions or restaurants in their travel blog entries. The use of words that are associated with positive or negative feelings have a significant influence on the presented destination image (Tang et al., 2011), and future research should therefore consider including these in the analysis.

The next limitation that should be taken into consideration during future research, is the fact that the time period in which the travel blogs are posted from the tourists and the locals varies significantly. The oldest blog entry of the locals is from October in 2017 while the oldest entry from the tourists comes from May in 2005. The information that was used for the DMOs and RTI was not dated, so it is unclear when those texts were written. As a destination image is dynamic and can change over time (Hunter, 2016), it is important to collect data from the same period during future research.

At last recommendation for future research, is that it might be more relevant if the most frequent word list would be counted binary, so it would only count how many blogs or websites would mention a word. This recommendation is done, as the researcher noticed that some blog entries or websites would mention one topic, and would use the same more often in the same blog entry. A binary counting could add value to the analysis, as it would exclude word counts from one blog or website entry.

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# Appendix A: Frequency Lists per Source

**Table A1.**

Most frequently used keywords or phrases in travel blogs from tourists for Rotterdam

| Rank | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| 1 | Hostel | 32 | 1.19% | 7.75% |
| 2 | Station | 29 | 1.08% | 7.02% |
| 3 | Building | 28 | 1.04% | 6.78% |
| 4 | Train | 28 | 1.04% | 6.78% |
| 5 | Bar | 23 | 0.86% | 5.57% |
| 6 | Dinner | 23 | 0.86% | 5.57% |
| 7 | Room | 23 | 0.86% | 5.57% |
| 8 | Food | 20 | 0.74% | 4.84% |
| 9 | Ship | 20 | 0.74% | 4.84% |
| 10 | Beer | 15 | 0.56% | 3.63% |
| 11 | Cabin | 15 | 0.56% | 3.63% |
| 12 | Lunch | 15 | 0.56% | 3.63% |
| 13 | Trip | 15 | 0.56% | 3.63% |
| 14 | Bed | 13 | 0.48% | 3.15% |
| 15 | Bike | 13 | 0.48% | 3.15% |
| 16 | Zoo | 12 | 0.45% | 2.91% |
| 17 | Boat | 11 | 0.41% | 2.66% |
| 18 | Cube house | 11 | 0.41% | 2.66% |
| 19 | Fun | 11 | 0.41% | 2.66% |
| 20 | Canal | 10 | 0.37% | 2.42% |
| 21 | Ferry | 10 | 0.37% | 2.42% |
| 22 | River | 10 | 0.37% | 2.42% |
| 23 | Euromast | 9 | 0.34% | 2.18% |
| 24 | Rain | 9 | 0.34% | 2.18% |
| 25 | Sun | 8 | 0.30% | 1.94% |
| | | | | |
| | Word frequency of total data | 2,686 | | |
| | Word frequency of words in top 25 | 413 | 15.38% | 100% |

**Table A2.**

Most frequently used keywords or phrases in travel blogs from locals for Rotterdam

| Rank | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|------|---------|-------------|-----------------------------------|-------------------------------|
| 1 | Food | 91 | 2.18% | 11.26% |
| 2 | Restaurant | 66 | 1.58% | 8.17% |
| 3 | Bar | 58 | 1.39% | 7.18% |
| 4 | Beer | 48 | 1.15% | 5.94% |
| 5 | Menu | 47 | 1.13% | 5.82% |
| 6 | Coffee | 44 | 1.05% | 5.45% |
| 7 | Building | 40 | 0.96% | 4.95% |
| 8 | Shop | 40 | 0.96% | 4.95% |
| 9 | Park | 33 | 0.79% | 4.08% |
| 10 | Art | 32 | 0.77% | 3.96% |
| 11 | Bread | 31 | 0.74% | 3.84% |
| 12 | Music | 27 | 0.65% | 3.34% |
| 13 | Burger | 26 | 0.62% | 3.22% |
| 14 | Drink | 26 | 0.62% | 3.22% |
| 15 | Fish | 25 | 0.60% | 3.09% |
| 16 | Sandwich | 25 | 0.60% | 3.09% |
| 17 | Terrace | 24 | 0.58% | 2.97% |
| 18 | Lunch | 22 | 0.53% | 2.72% |
| 19 | Meat | 16 | 0.38% | 1.98% |
| 20 | Party | 16 | 0.38% | 1.98% |
| 21 | Sun | 16 | 0.38% | 1.98% |
| 22 | Dinner | 15 | 0.36% | 1.86% |
| 23 | Bike | 14 | 0.34% | 1.73% |
| 24 | River | 14 | 0.34% | 1.73% |
| 25 | Hotel New York | 12 | 0.29% | 1.49% |
| | | | | |
| | Word frequency of total data | 4,172 | | |
| | Word frequency of words in top 25 | 808 | 19.37% | 100% |

**Table A3.**

Most frequently used keywords or phrases on websites from DMOs of Rotterdam

| Rank | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| 1 | Tour | 231 | 5.98% | 22.62% |
| 2 | Museum | 106 | 2.75% | 10.38% |
| 3 | Architecture | 54 | 1.40% | 5.29% |
| 4 | Building | 51 | 1.32% | 5.00% |
| 5 | Restaurant | 49 | 1.27% | 4.80% |
| 6 | Hotel | 45 | 1.17% | 4.41% |
| 7 | Attraction | 43 | 1.11% | 4.21% |
| 8 | Markthal | 39 | 1.01% | 3.82% |
| 9 | History | 35 | 0.91% | 3.43% |
| 10 | Art | 31 | 0.80% | 3.04% |
| 11 | Bar | 30 | 0.78% | 2.94% |
| 12 | Park | 30 | 0.78% | 2.94% |
| 13 | Cube house | 28 | 0.73% | 2.74% |
| 14 | Private tour | 28 | 0.73% | 2.74% |
| 15 | Event | 27 | 0.70% | 2.64% |
| 16 | Erasmus bridge | 25 | 0.65% | 2.45% |
| 17 | Euromast | 23 | 0.60% | 2.25% |
| 18 | Bike | 21 | 0.54% | 2.06% |
| 19 | Culture | 21 | 0.54% | 2.06% |
| 20 | Highlight | 21 | 0.54% | 2.06% |
| 21 | Museum Boijmans van Beuningen | 18 | 0.47% | 1.76% |
| 22 | Trip | 18 | 0.47% | 1.76% |
| 23 | Bus | 17 | 0.44% | 1.67% |
| 24 | Day trip | 16 | 0.41% | 1.57% |
| 25 | Fenix food factory | 14 | 0.36% | 1.37% |
| | | | | |
| | Word frequency of total data | 3,860 | | |
| | Word frequency of words in top 25 | 1,021 | 26.45% | 100.00% |

**Table A4.**

Most frequently used keywords or phrases on the website of RTI

| Rank | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| 1 | Restaurant | 571 | 5.17% | 14.56% |
| 2 | Shop | 338 | 3.06% | 8.62% |
| 3 | Tour | 271 | 2.45% | 6.91% |
| 4 | Hotel | 262 | 2.37% | 6.68% |
| 5 | Bar | 236 | 2.13% | 6.02% |
| 6 | Brasserie Lunchroom | 181 | 1.64% | 4.61% |
| 7 | Room | 181 | 1.64% | 4.61% |
| 8 | Dish | 158 | 1.43% | 4.03% |
| 9 | Building | 155 | 1.40% | 3.95% |
| 10 | Menu | 149 | 1.35% | 3.80% |
| 11 | Attraction | 148 | 1.34% | 3.77% |
| 12 | Architecture | 115 | 1.04% | 2.93% |
| 13 | Drink | 113 | 1.02% | 2.88% |
| 14 | Museum | 110 | 1.00% | 2.80% |
| 15 | Lunch | 107 | 0.97% | 2.73% |
| 16 | Cuisine | 105 | 0.95% | 2.68% |
| 17 | Dinner | 105 | 0.95% | 2.68% |
| 18 | Art | 92 | 0.83% | 2.35% |
| 19 | Coffee | 92 | 0.83% | 2.35% |
| 20 | Breakfast | 81 | 0.73% | 2.07% |
| 21 | Tram | 78 | 0.71% | 1.99% |
| 22 | Clothing | 73 | 0.66% | 1.86% |
| 23 | Beer | 69 | 0.62% | 1.76% |
| 24 | Beach | 66 | 0.60% | 1.68% |
| 25 | Rotterdam Central Station | 66 | 0.60% | 1.68% |
| | | | | |
| | Word frequency of total data | 11,055 | | |
| | Word frequency of words in top 25 | 3,922 | 35.48% | 100.00% |

# Appendix B: Coding Tree per Source

**Table B1.**

Coding tree of the travel blogs from tourists about Rotterdam

| Code | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| **Accommodations** | | | **4.24%** | **27.60%** |
| | Bed | 13 | 0.48% | 3.15% |
| | Boat | 11 | 0.41% | 2.66% |
| | Cabin | 15 | 0.56% | 3.63% |
| | Hostel | 32 | 1.19% | 7.75% |
| | Room | 23 | 0.86% | 5.57% |
| | Ship | 20 | 0.74% | 4.84% |
| **Attractions and Activities** | | | **3.65%** | **23.73%** |
| | Bike | 13 | 0.48% | 3.15% |
| | Building | 28 | 1.04% | 6.78% |
| | Cube house | 11 | 0.41% | 2.66% |
| | Euromast | 9 | 0.34% | 2.18% |
| | Ferry | 10 | 0.37% | 2.42% |
| | Trip | 15 | 0.56% | 3.63% |
| | Zoo | 12 | 0.45% | 2.91% |
| **Food and Beverages** | | | **3.57%** | **23.24%** |
| | Bar | 23 | 0.86% | 5.57% |
| | Beer | 15 | 0.56% | 3.63% |
| | Dinner | 23 | 0.86% | 5.57% |
| | Food | 20 | 0.74% | 4.84% |
| | Lunch | 15 | 0.56% | 3.63% |
| **Overall Impression** | | | **1.79%** | **11.62%** |
| | Canal | 10 | 0.37% | 2.42% |
| | Fun | 11 | 0.41% | 2.66% |
| | Rain | 9 | 0.34% | 2.18% |
| | River | 10 | 0.37% | 2.42% |
| | Sun | 8 | 0.30% | 1.94% |
| **Transport** | | | **2.12%** | **13.80%** |
| | Station | 29 | 1.08% | 7.02% |
| | Train | 28 | 1.04% | 6.78% |
| | | | | |
| Word frequency of total data | | 2,686 | | |
| Word frequency of words in top 25 | | 413 | 15.38% | 100.00% |

**Table B2.**

Coding tree of the travel blogs from locals about Rotterdam

| Code | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| **Attractions and Activities** | | | **2.73%** | **14.11%** |
| | Art | 32 | 0.77% | 3.96% |
| | Bike | 14 | 0.34% | 1.73% |
| | Building | 40 | 0.96% | 4.95% |
| | Hotel New York | 12 | 0.29% | 1.49% |
| | Party | 16 | 0.38% | 1.98% |
| **Food and Beverages** | | | **13.52%** | **69.80%** |
| | Bar | 58 | 1.39% | 7.18% |
| | Beer | 48 | 1.15% | 5.94% |
| | Bread | 31 | 0.74% | 3.84% |
| | Burger | 26 | 0.62% | 3.22% |
| | Coffee | 44 | 1.05% | 5.45% |
| | Dinner | 15 | 0.36% | 1.86% |
| | Drink | 26 | 0.62% | 3.22% |
| | Fish | 25 | 0.60% | 3.09% |
| | Food | 91 | 2.18% | 11.26% |
| | Lunch | 22 | 0.53% | 2.72% |
| | Meat | 16 | 0.38% | 1.98% |
| | Menu | 47 | 1.13% | 5.82% |
| | Restaurant | 66 | 1.58% | 8.17% |
| | Sandwich | 25 | 0.60% | 3.09% |
| | Terrace | 24 | 0.58% | 2.97% |
| **Overall Impressions** | | | **2.16%** | **11.14%** |
| | Music | 27 | 0.65% | 3.34% |
| | Park | 33 | 0.79% | 4.08% |
| | River | 14 | 0.34% | 1.73% |
| | Sun | 16 | 0.38% | 1.98% |
| **Shopping** | | | **0.96%** | **4.95%** |
| | Shop | 40 | 0.96% | 4.95% |
| | | | | |
| Word frequency of total data | | 4,172 | | |
| Word frequency of words in top 25 | | 808 | 19.37% | 100.00% |

**Table B3.**

Coding tree of the websites of DMOs about Rotterdam

| Code | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| **Accommodations** | | | **1.17%** | **4.41%** |
| | Hotel | 45 | 1.17% | 4.41% |
| **Attractions and Activities** | | | **21.01%** | **79.43%** |
| | Architecture | 54 | 1.40% | 5.29% |
| | Art | 31 | 0.80% | 3.04% |
| | Attraction | 43 | 1.11% | 4.21% |
| | Bike | 21 | 0.54% | 2.06% |
| | Building | 51 | 1.32% | 5.00% |
| | Bus | 17 | 0.44% | 1.67% |
| | Cube house | 28 | 0.73% | 2.74% |
| | Day trip | 16 | 0.41% | 1.57% |
| | Erasmus bridge | 25 | 0.65% | 2.45% |
| | Euromast | 23 | 0.60% | 2.25% |
| | Event | 27 | 0.70% | 2.64% |
| | Fenix food factory | 14 | 0.36% | 1.37% |
| | Highlight | 21 | 0.54% | 2.06% |
| | Markthal | 39 | 1.01% | 3.82% |
| | Museum | 106 | 2.75% | 10.38% |
| | Museum Boijmans van Beuningen | 18 | 0.47% | 1.76% |
| | Private tour | 28 | 0.73% | 2.74% |
| | Tour | 231 | 5.98% | 22.62% |
| | Trip | 18 | 0.47% | 1.76% |
| **Food and Beverages** | | | **2.05%** | **7.74%** |
| | Bar | 30 | 0.78% | 2.94% |
| | Restaurant | 49 | 1.27% | 4.80% |
| **Overall Impressions** | | | **2.23%** | **8.42%** |
| | Culture | 21 | 0.54% | 2.06% |
| | History | 35 | 0.91% | 3.43% |
| | Park | 30 | 0.78% | 2.94% |
| | | | | |
| Word frequency of total data | | 3,860 | | |
| Word frequency of words in top 25 | | 1,021 | 26.45% | 100.00% |

**Table B4.**

Coding tree of the website of RTI

| Code | Concept | Occurrences | Percentage of words in total data | Percentage of words in top 25 |
|---|---|---|---|---|
| **Accommodations** | | | **4.01%** | **11.30%** |
| | Hotel | 262 | 2.37% | 6.68% |
| | Room | 181 | 1.64% | 4.61% |
| **Attractions and Activities** | | | **8.06%** | **22.72%** |
| | Architecture | 115 | 1.04% | 2.93% |
| | Art | 92 | 0.83% | 2.35% |
| | Attraction | 148 | 1.34% | 3.77% |
| | Building | 155 | 1.40% | 3.95% |
| | Museum | 110 | 1.00% | 2.80% |
| | Tour | 271 | 2.45% | 6.91% |
| **Food and Beverages** | | | **17.79%** | **50.15%** |
| | Bar | 236 | 2.13% | 6.02% |
| | Beer | 69 | 0.62% | 1.76% |
| | Brasserie Lunchroom | 181 | 1.64% | 4.61% |
| | Breakfast | 81 | 0.73% | 2.07% |
| | Coffee | 92 | 0.83% | 2.35% |
| | Cuisine | 105 | 0.95% | 2.68% |
| | Dinner | 105 | 0.95% | 2.68% |
| | Dish | 158 | 1.43% | 4.03% |
| | Drink | 113 | 1.02% | 2.88% |
| | Lunch | 107 | 0.97% | 2.73% |
| | Menu | 149 | 1.35% | 3.80% |
| | Restaurant | 571 | 5.17% | 14.56% |
| **Overall Impressions** | | | **0.60%** | **1.68%** |
| | Beach | 66 | 0.60% | 1.68% |
| **Shopping** | | | **3.72%** | **10.48%** |
| | Clothing | 73 | 0.66% | 1.86% |
| | Shop | 338 | 3.06% | 8.62% |
| **Transport** | | | **1.30%** | **3.67%** |
| | Rotterdam Central Station | 66 | 0.60% | 1.68% |
| | Tram | 78 | 0.71% | 1.99% |
| | | | | |
| Word frequency of total data | | 11,055 | | |
| Word frequency of words in top 25 | | 3,922 | 35.48% | 100.00% |

# Appendix C: Most Frequent Words and Phrases Related to Architecture

**Table C.**

*Most frequent words or phrases concerning architecture in rank order per online destination information*
*source*

| Rank | Tourists | Locals | DMOs | RTI |
|------|----------|--------|------|-----|
| 3 | Building | | Architecture | |
| 4 | | | Building | |
| 7 | | Building | | |
| 8 | | | Markthal | |
| 9 | | | | Building |
| 12 | | | | Architecture |
| 13 | | | Cube house | |
| 16 | | | Erasmus bridge | |
| 17 | | | Euromast | |
| 18 | Cube house | | | |
| 23 | Euromast | | | |
| 25 | | Hotel New York | | Rotterdam Central Station |