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Effect of tourist photographs on attitudes towards destination: Manifest and latent content



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HIGHLIGHTS

- Analyzed how tourist photos posted online are "decoded" on the receiver's end.
- Examined latent and manifest content of tourist photos and their interplay.
- Manifest content influences attitudes towards destination.
- Both cognitive and affective latent attributes influence desire to visit.
- Mediating role of affective latent attributes is identified.

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ABSTRACT

In the sender-message-receiver communication model, tourist photographs project organic destination images which are interpreted on the receiving end of the communication channel by potential tourists, influencing their tourism-related attitudes and affecting behavior. This study investigated how photographs taken by American and Korean tourists while visiting Russia and posted in travel blogs and on media-sharing websites affect perceptions of Russia as a travel destination by those who view these images. The study specifically focused on latent content of tourist photographs with respect to such destination attributes as crowdedness, cleanliness, level of economic development, personal safety, level of modernity, friendliness, uniqueness, and extent of commercialization, as well as affective qualities of destination places. Researchers evaluated the interplay between the manifest and latent content of the images and how each type of content separately and both types together affected attitudes of viewers towards the destination and their desire to visit it.

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1. Introduction

Destination photography communicates images that shape and reshape tourists' destination perceptions and, consequently, influence their decision-making process. Destination photography is influenced by both organic and induced sources; the first being motion pictures, television shows, documentaries, paintings, photo-art exhibitions, and books (Jenkins, 1999; Yüksel & Akgül, 2007), while the second being primarily commercial images and

advertisements produced and managed by destination marketing organizations (DMOs). An important role of commercial photographs was to construct "place-myths" (Jenkins, 2003; Urry & Larsen, 2011) that would project desired destination images to potential tourists for consumption (Butler & Hall, 1998; Molina & Esteban, 2006; Santos, 1998; Sönmez & Sirakaya, 2002). However, the image that the viewer is "reading" from the photographs crafted by tourism industries may not be a direct reflection of the physical reality of a destination. Often, commercial photographs are edited by professional photographers to favorably position a destination and may present the image in an exaggerated and inaccurate manner (Crawshaw & Urry, 1997). While positioning a destination is a core activity of DMOs (Day, Skidmore, & Koller, 2002), positioning is "not so much what you say about your products or company as much as it is what your customers say

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about you" (McKenna, 1991: 44). Development of the Internet presented people with previously unimaginable communication powers, and tourist travel accounts proliferate in blogs and on social networks. On the receiving end of communication channels, user-generated images of the destination (made without ties to destination promoters and, therefore, being organic in nature (Gartner, 1994)), influence perceptions of the destination by tourists-to-be who view them. The extent of this influence needs to be investigated.

The essence of studying communications, that is, the "sendermessage-receiver" flow, has been summarized by Lasswell (1948) in his famous quote as "who says what through which channel to whom with what effect." In the travel context, the senders are tourists who take photographs while they travel and then post these images (the message) on social networks and media-sharing websites. Posted photographs, sometimes accompanied with a title, tags, or a short description, constitute a projected destination image (Jenkins, 2003), which is decoded by the receiver, or tourist-tobe, at the other end of communication channel, and, as such, contributes to the perceived image and, possibly, attitudes towards the destination. Granted, the intended meaning that the sender attaches to a photograph may be different from how it is interpreted by the receiver. As studies on the hermeneutic circle of representation show, one of the motives behind why people post their travel accounts is "been there and seen that" (e.g., MacKay & Couldwell, 2004; Stepchenkova & Zhan, 2013; cf. Chalfen, 1979); moreover, travelers' accounts are often based on previously seen destination representations (Jenkins, 2003). However, while the link between visual destination representations and visitations has been documented, primarily in the studies about effect of a motion picture on visitation numbers to the film site (e.g., Riley & Van Doren, 1992; Tooke & Baker, 1996), the process through which images influence tourist-related attitude and behavior is not well understood, and the studies on the topic are scarce.

The message, that is, a tourist photograph, has two types of content: manifest and latent. Manifest content, as the name suggests, refers to all signs depicted in the image that are interpreted at their face value, such as images of nature landscapes, buildings, or people in traditional clothes. In contrast, latent content is concerned with what the image signifies beyond mere appearances. Latent content, with all its signs, collectively alludes to a meaning that lies outside of the particular picture; for example, an impression of a destination being unsafe is a possible result of reading the latent content of a photograph. In the "sender-message-receiver" triad, the middle link, or message, has received incomparably more attention than the other two links, the sender and the receiver. Moreover, the meaning of the message is primarily decoded by the researcher from the perspective of the researcher's theory (Roberts, 1997). To study the effect of the manifest content on audiences, this is understandable, as manifest meaning is arguably invariant to who reads the image; it is decoded in a similar way by anyone who views the image, whether they are a researcher or a potential tourist. Content analysis is the main "quantitative" method for studying manifest content of the destination photography. This method "equates" the researcher's "reading" of the images with "reading" of the people on the receiving end of communication. With respect to the latent content, which is much more interpretive in nature, such equating is questionable; therefore, decoding the latent content of tourist photographs relies more on the techniques of semiotic, discourse, and critical analyses, the group of approaches that belong to the "qualitative" epistemological paradigm.

Thus, the study investigated how photographs taken by tourists while visiting a destination are interpreted by those who view the images; i.e., what meaning tourists-to-be attach to them. The study specifically focused on latent content of tourist photographs with

respect to such destination attributes as crowdedness, cleanliness, level of economic development, personal safety, level of modernity, friendliness, uniqueness, and extent of commercialization, as well as affective qualities of destination places, such as whether the destination is perceived as a pleasant and relaxing or an arousing and exciting place. Researchers were also interested in evaluating the interplay between the manifest and latent content of the photographs and how each type of content separately and both types together affected overall attitudes of viewers towards the destination and their desire to visit it.

2. Study background

2.1. Manifest and latent content

When developing analytical dimensions for analysis of visual images, researchers must make a decision regarding which content to analyze: manifest or latent. Manifest content has been compared to the surface structure of the message (Berg, 2004): it is explicit, refers to observable features of the images, and can be recorded with a high degree of reliability. Latent content, in contrast, is implicit, embedded in the message, and requires "reading between the lines" (Holsti, 1969: 12). The researcher has to interpret the presence of latent content, a process that can range from cognitive deductions (that is, judgments), evaluations, and interpretations, to impressions and feelings (Riffe, Lacy, & Fico, 2005). Most studies that used tourist photography analyzed visual messages using either content analysis for manifest content or an approach from a repertoire of more interpretive techniques for latent content. Interpretive approaches such as discourse analysis (Markwick, 2001; Pritchard & Morgan, 2003), critical analysis (Hunter, 2008; Mellinger, 1994), or semiotic analysis (Albers & James, 1988; Cooper, 1994; Selwyn, 1993; Uzzell, 1984), as well as others, may be combined in one study to explore the range of diverse meaning (Rose, 2012); however, from the methodology perspective, they substantially differ from content analysis with its emphasis on quantification. Because of this difference, it is rare that manifest and latent content are examined in one study (Jenkins, 2003; a recent example would be Pan, Lee, & Tsai, 2014).

Within the content analysis research stream, Garrod (2009) has compared photographs taken by visitors to the Welsh resort of Aberystwyth to the city postcards along such manifest categories as attractions, locations, panoramic/close-up distinction, etc. MacKay and Couldwell (2004) compared and contrasted photographs of a Canadian national historic park with promotional images of the site, using seven manifest categories such as exterior buildings, interior of the main house, demonstration of the past way of life, farming equipment, animals, grounds, and people. Jenkins (2003) contrasted the photographs from travel brochures of Australia that targeted two distinctive travel segments, backpackers and mainstream tourists, by examining such manifest features as iconic landmarks, landscapes, people, animals, active sports, passive activities, and "group fun." Stepchenkova and Zhan (2013) comparatively analyzed destination images of Peru produced by the destination's DMO and photos of tourists to the country, using 20 categories, including nature landscape, people, archaeological sites, way of life, traditional clothes, etc. While it has been noted that linkages between the message and the sender are often slight (Chadwick, Bahar, & Albrecht, 1984), Stepchenkova, Kim, and Kirilenko (2014) addressed visual communications from the perspective of the sender and analyzed Russian travel photographs taken by two culturally different groups of tourists, American and Korean; the study used ten manifest dimensions, including people, nature landscape, urban-rural distinction, activities, architecture, etc.

While the meaning of communication can be addressed by analyzing its manifest content in a verifiable and replicable way (Neuendorf, 2002), the technique is reductionist in nature: it decomposes the image into a number of categories, of which frequencies, co-occurrences, and clustering can be directly observed and quantitatively summarized. It is much more difficult to obtain acceptable reliability coefficients for latent content using content analysis, and opinions differ about whether content analysis can tackle latent content at all. In the tradition of Berelson (1952: 18), who defined content analysis as "a research technique for the objective, systematic and quantitative description of the manifest content of communication", some researchers delineate content analysis as a strictly quantitative technique which "deals with the manifest content by definition, and makes no claims beyond that" (Riffe et al., 2005: 38). Others, like Krippendorff (2004), find the Berelson's definition too narrow and restrictive; however, Krippendorff acknowledges that to probe into the latent meaning of the message, content analysis as a technique has to be modified, becoming more "qualitative" and, thus, in the authors' view, blending into a group of interpretive methodologies.

Studies by Caton and Santos (2008) and Markwick (2001) would be examples of how visual destination images are interpreted in relation to a broader system of meanings (Rose, 2012) and whose "different gazes are 'authorized' by different discourses" (Crawshaw & Urry, 1997: 176). Guided by postcolonial discourse and the notion of the "Other" (Said, 1978), Caton and Santos (2008) analyzed photos of Third World destinations made by students on a study abroad cruise trip. The researchers employed the dimensions of traditional/modern, subject/object, master/servant, center/periphery, and devious-lazy/moral-industrious to interpret the imagery from socio-cultural perspectives. Markwick (2001) was interested in the complex circuits of production and consumption of induced destination imagery (postcards of Malta) and approached the task through the theoretical lenses of tourist desire and motivation (Edwards, 1996; Graburn, 1978; MacCannell, 1976), using perspectives of sunlust (the search for the exotic), wanderlust (the search for the authentic), quotidian (commonplace, routine cultural practices), and realism to interpret images of Malta on postcards. It is important to highlight, however, that the interpretive methodologies rarely allow elements of the positivist paradigm with its quantitative orientation in the process of understanding the complex connections between pictorial images and viewers' perceptions of depicted objects.

Meaning embedded in the message may vary from one viewer to another; however, the extent of such variation depends on the type of content. Manifest content comprises denotative meaning, which is explicit, literal, and shared by large groups of people; that is, many people apply the same meaning to symbols in the message (Riffe et al., 2005). The representative role of the researcher is implicitly assumed in the study of the manifest content, as observations and conclusions that the researcher is making from the message could have been made by any member of the audience. However, the "symbolic meaning of a specific set of pictorial appearances" cannot be entirely determined even by the most comprehensive and detailed content analysis alone (Albers & James, 1988: 147). Latent content deals with connotative meaning, which is the individual-specific meaning given by individuals to symbols (Riffe et al., 2005; Rose, 2012). Thus, with respect to the latent content, one is presented with the question of whether the judgments made by researchers based on the analysis of visual texts are shared by wider audiences. As Riffe et al. (2005) maintain, to positively answer this question one needs to assume two things: that the researcher is a competent and authoritative interpreter of visual images, who can grasp the meaning of the latent content and its effect on the receiver, and, at the same time, that the researcher is a representative member of the audience for the communication in question. Because different viewers, both experts and nonexperts, interpret visual images differently (Rose, 2012) and because interpretations by experts tend to exhibit a higher level of theorizing and abstraction than those of general public, these two assumptions present the internal contradiction. While qualitative methodologies are uniquely positioned to interpret the message in all its entirety and complexity, they are somewhat less suited to evaluate the effect of the message on audiences. New approaches to analyze latent content of visual communications, its interplay with manifest content, and the effect of the two types of content on the message receiver should be tested, where the power of interpretation is shifted towards the audiences. Survey-based approaches dealing with visuals should be examined and tested from the perspective of their feasibility and potential to generate rich enough data for subsequent statistical analyses with reference to a particular research question.

To quantitatively study the effects of pictorial images and their latent content in particular on attitudes towards destinations featured in the photos requires (1) obtaining responses from survey subjects on a reasonably large number of photographs that represent the destination in question and (2) evaluation of images on a sizable set of latent attributes in order to obtain rich enough data. These requirements are challenging to meet, as evidenced by the scarceness of research on visuals in the quantitative paradigm. In cases where that paradigm is chosen, the studies compromise on sample sizes, number of attributes, or both. For example, Yüksel and Akgül (2007) examined the effects of affective image proiected in postcards of Kusadasi, Turkey, on satisfaction, desire to visit, and loyalty intentions. However, only two postcards and four affective latent attributes were included in the survey. The study by Pan et al. (2014) is one of the very few which attempts to investigate the interplay between manifest image features and the affective feelings that images produce. The researchers analyzed 145 travel photos from the travel section of The New York Times using short commentary provided by the image producers about what affective feelings the destination on the photos elicited in them. Researchers associated themselves with the audiences and "read" the meaning of the images using both content analysis and more qualitative approaches. Thus, the analysis of the interplay between the manifest and latent content (it should be noted that Pan et al. (2014) did not use these terms) was not formalized and, therefore, not quantitatively supported.

2.2. Destination image as attitude

Attitude is generally understood as an evaluative judgment about a given object, which can be favorable, unfavorable, or neutral (Lutz, 1991; Thurstone, 1928); it is "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993: 1). Attitudes are evoked as a response to stimuli, whether physically observable or verbal. Evaluative responses that reveal one's attitudes have been classified into three categories - cognition, affect, and behavior. The cognitive category is comprised of thoughts (often conceptualized as beliefs) about the attitude object; the affective category deals with feelings, moods, and emotions towards it; and the behavioral (conative) category incorporates one's actions in relation to the attitude object (Eagly & Chaiken, 1993). Measures of cognition, affect, and behavior take the form of physiological responses or verbal self-reports to an attitude object; if the object is not present, one can respond to a symbolic or mental representation of the object by providing verbal reports of feelings or moods or verbal statements of behavior (Breckler, 1984). Cognitive and affective responses are typically assessed by placing them on a bipolar evaluative continuum anchored at both ends (e.g., positivenegative, favorable-unfavorable, or supportive-hostile). Existing measurement techniques allow pinpointing the location of one's attitude on that evaluative scale. (It is worth mentioning that attitudes located near the neutral or zero point are also considered as evaluative responses, though some controversy exists with respect to this issue.) Evaluative responses from the conative category can be overt (real actions) and covert, that is, verbal statements of intention to engage in behavior. Cognitive, affective, and conative evaluations are generally assumed to be positively correlated, as the three are located on the common underlying evaluative dimension. At the same time, responses within each category may relate to each other more strongly than to responses from the other two categories. Thus, each attitudinal component – cognitive, affective, and conative – may possess unique variance not shared with the other two components (Ajzen, 1988). Dimensionality of intraattitude structure has been tested in multiple studies with varying results (Eagly & Chaiken, 1993: 13). While the cognition-affectbehavior structure of attitude has been accepted as a useful framework, there is a strong line of research in marketing literature that regard attitudes as having cognitive and affective dimensions that affect one's behavior (Conway & Dubé, 2002; Dubé, Cervellon, & Jingyuan, 2003; Park, Stoel, & Lennon, 2008; Petty, Unnava, & Strathman, 1991).

The destination image concept has its roots in social and environmental psychology, marketing, and consumer behavior literature (Assael, 1984; Engel, Blackwell, & Miniard, 1986; Gensch, 1978; Herzog, 1963). Image has long been viewed as the sum total of the impressions a consumer receives from many sources (Herzog, 1963); it emphasizes evaluation of individual attributes, which may contain both cognitive and emotional components (Dichter, 1985; Oxenfeldt, 1974-1975). In the tourism literature, destination image has been treated as "an attitudinal construct consisting of an individual's mental representation of knowledge (belief), feelings, and global impression about an object or destination" (Baloglu & McCleary, 1999: 870). Scholars generally agree that destination image holds at least two distinctive components: cognitive and affective. Several scholars supported inclusion of a third - conative, or behavioral, component in the destination image framework (e.g., Pike & Ryan, 2004), which is often interpreted as a likelihood of destination selection (brand purchase) or a propensity to visit a destination within a certain time frame (e.g., Um, Chon, & Ro, 2006). From a somewhat unusual angle, Echtner and Ritchie (1993) envisioned destination image as consisting of two main components: those that are attribute-based and those that are holistic. Each of these components contains functional (more tangible) and psychological (more abstract) characteristics. Images can also range from those based on "common" functional and psychological traits to those based on more distinctive or even unique features. For example, in their 35-item scale, such destination aspects as crowdedness, cleanliness, level of economic development, extent of commercialization, personal safety, friendliness, level of modernity, and uniqueness can be considered as cognitive image attributes of a more psychological nature. Arguably, the most common conceptualization of affect is represented by four items proposed by Russell and Snodgrass (1987): Pleasant-Unpleasant, Arousing-Sleepy, Relaxing-Distressing, and Exciting-Gloomy.

The cognitive-affective-conative conceptualization of destination image has much in common with the tripartite model of attitudes (Breckler, 1984); however, research by Breckler (1984) suggests that dimensionality of attitude construct varies depending on the strength of an impact of the attitude object (physically present or symbolic) on respondents, as well as on the way of measurement (physiological responses such as for example heart rate and sweating or verbal self-reports). In the present study, the attitude object, that is, a destination, is represented by symbolic stimuli, that is, tourist photographs. According to Breckler (1984), the data produced as verbal self-reports to visual stimuli do not support the tripartite model well. Moreover, driven by practical considerations of explaining the destination choices of tourists, this study is primarily interested in the image-behavior relationship. with the focus on cognition and affect as attitude dimensions and their relationship to behavior (Crites, Fabrigar, & Petty, 1994; Fabrigar, MacDonald, & Wegener, 2005). Thus, the present study takes the view that the destination image is an attitudinal construct which cognitive, affective, and conative components are hierarchically interrelated and where affect is largely dependent on cognition (Baloglu & McCleary, 1999; Gartner, 1994). The cognitive and affective components together contribute to the overall attitude and behavioral response towards the destination entity (e.g., Baloglu & Brinberg, 1997; Chen & Kerstetter, 1999; Rittichainuwat, Qu, & Brown, 2001). Lately, there has been more emphasis on studying affective image, as "behavior may be influenced by the (estimated, perceived, or remembered) affective quality of an environment rather than by its objective properties directly" (Russell & Snodgrass, 1987: 246). There have been indications that affect is, indeed, a better predictor of behavioral intention than cognition (e.g., Yu & Dean, 2001); therefore, several recent studies on destination and country image operationalized only the affective component of destination image (e.g., Ekinci & Hosany, 2006; Hosany, Ekinci, & Uysal, 2007; Papadimitriou, Apostolopoulou, & Kaplanidou, 2013). However, despite the growing recognition of the importance of affect, the usefulness of both cognitive and affective components, as well as their interplay in influencing tourist behavior, should not be ignored.

2.3. Summary of research objectives

The latent content of tourist photographs has not been sufficiently addressed within the quantitative research paradigm, left alone the interplay between the manifest and latent content and their influence on overall attitudes and behavioral intentions of audiences towards a destination. Thus, the objective of this study is to investigate how photographs of a destination made by tourists while traveling and then posted online are interpreted on the receiving end of communication. The authors are specifically interested in how these images affect perceptions of potential tourists about the destination on various destination attributes, what attitudes toward the destination these images produce, and whether the images generate the desire to visit the destination. Thus, the study mainly deals with the third part of the "sendermessage-receiver" communication model, the audience, and addresses the "with what effect" communicational aspect (Lasswell, 1948) (Fig. 1). Specifically, the study is concerned with four questions formulated below:

- 1. How do tourists-to-be perceive destinations by viewing travel photos posted online? What destination image emerges from the latent content of tourist photographs?
- 2. Does perception of destination attributes reflected by the latent content of tourist photos depend on the characteristics of image producers, namely, their culture?
- 3. What is the interplay between manifest and latent content in tourist photographs? Which manifest destination attributes as captured in tourist photos are more influential in forming positive attitudes towards the destination?
- 4. Can latent attributes predict behavioral intentions? If so, which latent attributes are better predictors of behavioral intentions?

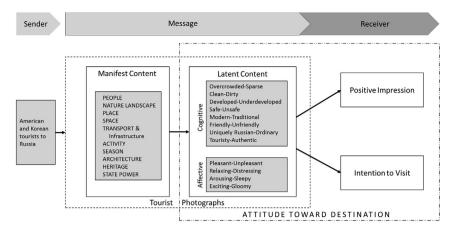


Fig. 1. Research framework.

3. Method

The study addresses the "to what effect" communicational problem in a formalized, quantitatively oriented manner by using a combination of two methods — content analysis for manifest content and survey measurements for latent content. To test the proposed approach, the authors used photographs of Russia made by Korean and American tourists posted in travel blogs and on mediasharing websites. The pictorial images were viewed by Amazon Mechanical Turks who evaluated these photos on 12 latent dimensions. A series of regression analyses was performed to investigate the relationship between manifest and latent content of tourist photographs and the influence of these types of content on the overall attitude towards the destination and behavioral intention of potential tourists.

3.1. Data source and manifest content

Pictorial images used in this study were taken from the study by Stepchenkova et al. (2014). The previous study ensured that the photographs were made in Russia by representatives of the American and Korean cultures. The American pool of images was obtained from media-sharing website Flickr, as Flickr's built-in, ready-to-go programming tools were conducive to data collection. The search required each photo to be geo-tagged with a location within the Russian Federation, and the poster of the selected photo had to list a U.S. location in his or her Flickr profile. The search resulted in 4000 photographs that through a randomization procedure were reduced to 658 images made by 295 unique users.

It was estimated that only 1% of all images posted on Flickr were made by Korean users; therefore, the Korean pool of photos was obtained from Korean travel blogs. Korean search engine and web portal Naver returned 6000 tourist photographs of Russia, from which 597 images made by 139 unique users were obtained. Each photo was coded on manifest content along the following categories: PEOPLE (Single, Group, Few Random, or Crowd), NATURE LANDSCAPE, PLACE (Urban Area or Rural Area), SPACE (Tourist, Residential, or Private), TRANSPORT & INFRASTRUCTURE, ACTIVITIES (Leisure, Outdoor and Sports, Way of Life, or On the Streets), SEASON (Cold Climate or Greenery), ARCHITECTURE, HERITAGE (Arts & Culture, History, Food & Things), and STATE POWER (Table 1). The inter-rater reliability study ensured acceptable agreement between the two coders on all categories (Stepchenkova et al., 2014).

The present study focused on latent content of tourist photographs, as well as the interplay of the manifest and latent content. For that purpose, subsamples of 100 images were drawn from the original samples of American and Korean photographs used in the study by Stepchenkova et al. (2014). It was decided that any single image would require evaluation by multiple people in order to arrive at a "consensus" value on each of the latent attributes; therefore, a drastic reduction in the number of images was

Table 1American and Korean photo samples: structure of manifest content.

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Private space 4 3 SPACE 90 89 Transport & 34 22 Infrastructure 34 22 INFRASTRUCTURE 8 22 Leisure 35 19 6.494 0.011 Outdoors 3 4 4 Way of life 6 10 0 0 0 On the streets 9 5 ACTIVITY 53 38 8 Cold climate 12 11 0 0.025 SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 </td <td>Tourist space</td> <td>48</td> <td>46</td> <td></td> <td></td>	Tourist space	48	46		
SPACE 90 89 Transport & 34	Residential area	38	40		
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Outdoors 3 4 Way of life 6 10 On the streets 9 5 ACTIVITY 53 38 Cold climate 12 11 Greenery 28 15 5.007 0.025 SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	INFRASTRUCTURE				
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On the streets 9 5 ACTIVITY 53 38 Cold climate 12 11 Greenery 28 15 5.007 0.025 SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	Outdoors	3	4		
ACTIVITY 53 38 Cold climate 12 11 Greenery 28 15 5.007 0.025 SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	Way of life	6	10		
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Greenery 28 15 5.007 0.025 SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	ACTIVITY	53	38		
SEASON 40 26 Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	Cold climate	12	11		
Architecture 38 47 ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	Greenery	28	15	5.007	0.025
ARCHITECTURE 38 47 Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	SEASON	40	26		
Arts & Culture 7 5 History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	Architecture	38	47		
History 5 10 Food & thing 1 0 HERITAGE 13 15 State power 2 9	ARCHITECTURE	38	47		
Food & thing 1 0 HERITAGE 13 15 State power 2 9	Arts & Culture	7	5		
HERITAGE 13 15 State power 2 9	History	5	10		
State power 2 9	Food & thing	1	0		
	HERITAGE	13	15		
STATE POWER 2 9	State power	2	9		
	STATE POWER	2	9		

 $^{^{}a}$ df = 1 in all tests.

 $^{^{\}rm b}$ Results significant at 0.05 level are shown. No significant results at 0.002 level (Bonferroni correction).

necessary for the research to be feasible. To be able to answer Research Question 1, the authors aimed at a similar composition of the two samples with respect to the manifest attributes while avoiding bias in choosing the images. One hundred photos were, therefore, randomly selected from the respective samples, and then too-dark or not-in-focus images, as well as close-ups of a particular object (e.g., architectural detail, museum art, or flowers) were removed as not suitable for the research purpose. New photos were selected randomly until the number of 100 suitable images was reached; subsamples were compiled in two (American) and three (Korean) iterations. Composition of the two 100-photo samples was found to be acceptably similar (Table 1) to proceed with the study.

3.2. Instrument to measure latent content

An extensive literature review revealed more than 150 bipolar descriptive pairs (latent attributes) that could have been used for evaluating latent content of tourist photographs (synonyms were counted as separate instances: e.g., quiet-busy; dynamic-still; vibrant-stagnant). Among latent attributes, some can be classified as more cognitive in nature (e.g., cleanliness) and some as more affective (e.g., relaxing, friendly, or exciting). Classification of attributes along the cognitive-affective axis is not firmly fixed. For example, in the reviewed literature, the friendliness attribute is classified as both cognitive (e.g., Ekinci and Hosany (2006)) and affective (e.g., Son, 2005), and this is not the only instance. After consideration, the attributes of crowdedness, cleanliness, level of economic development, personal safety, level of modernity, friendliness, uniqueness, and extent of commercialization were considered as attributes of a more cognitive nature and are collectively referred to as Cognitive8 further in the paper. For affective latent attributes, four items proposed by Russell and Snodgrass (1987) (Pleasant-Unpleasant, Arousing-Sleepy, Relaxing-Distressing, and Exciting-Gloomy) were chosen as, arguably, the most frequently used measure of affect in the tourism literature. Further, they are collectively referred to as *Affective4*. Table 2 lists studies which used the selected attributes to measure destination image.

The measurement instrument for *Cognitive8* and *Affective4* was a 7-point semantic differential scale, anchored at both ends (Barrett & Russell, 1998). While the issue of the optimal number of response categories is still unresolved (cf. Dolnicar & Grün, 2012; Preston & Colman, 2000), the 7-point scale was chosen based on the record of its high performance in terms of inter-coder reliability (e.g., Nunnally, 1967; Preston & Colman, 2000), maximization of the amount of information (Green & Rao, 1970), and providing the respondents with the room to express themselves (Preston & Colman, 2000).

The overall attitude towards Russia as a destination was captured by the item *PositiveImpression* ("Based on this photo, how positive is your impression of Russia as a destination?"), while the behavioral intention to visit Russia was captured by the item *Want2Visit* ("Does this photo make you want to visit Russia?"). The theoretical foundations of one question vs. multiple questions to capture a domain were considered (Dolnicar, 2013); the authors concluded that using a single question was appropriate for the research purpose and additionally decreased demand on survey respondents. To measure these two items, a 7-point "Not at all (1) — Very much (7)" scale was used. The survey was pre-tested using 50 graduate students, and minor changes were made to the layout, text of the invitation letter, and survey instructions prior to releasing the survey to respondents.

3.3. Survey administration

Each of the 200 images had to be assessed on eight cognitive and four affective latent attributes, as well as on the overall attitude (*PositiveImpression*) and desire to visit Russia (*Want2Visit*). To make

 Table 2

 Cognitive, affective, and behavioral attributes.

Image attribute	Survey item	Selected literature
Cognitive8		
Crowdedness	Overcrowded-sparse	Ekinci & Hosany (2006); Ong and Horbunluekit (1997);
		Hosany, Ekinci, and Uysal (2006); Crompton (1979)
Cleanliness	Clean-dirty	Ong and Horbunluekit (1997); Son (2005); Sönmez and
		Sirakaya (2002); Naoi (2003); Sasaki (2002); Crompton (1979)
Economic	Developed-underdeveloped	Ong and Horbunluekit (1997); Sönmez and Sirakaya (2002)
development		
Personal safety	Safe-unsafe	Ong and Horbunluekit (1997); Crites, Fabrigar & Petty (1994);
		Sönmez and Sirakaya (2002); Crompton (1979)
Modernity level	Modern-traditional	Kastenholz (2010); Beerli, Meneses, and Gil (2007); Hosany and
		Martin (2012); Ekinci & Riley (2003)
Friendliness	Friendly-unfriendly	Ekinci & Hosany (2006); Ong and Horbunluekit (1997); Son (2005);
		Hosany et al. (2006); Ekinci & Riley (2003)
Uniqueness	Uniquely Russian-ordinary	Naoi (2003); Sasaki (2002); Crompton (1979)
Extent of	Touristy-authentic	Ong and Horbunluekit (1997); Sasaki (2002)
commercialization		
Affective4 ^a		
Pleasantness	Pleasant-unpleasant	Baloglu and Brinberg (1997); Pike and Ryan (2004); Baloglu and
Relaxation	Relaxing-distressing	McCleary (1999); Ekinci & Hosany (2006); Son (2005);
Arousal	Arousing-sleepy	Hosany et al. (2006); Lin, Morais, Kerstetter, and Hou (2007);
Excitement	Exciting-gloomy	Sönmez and Sirakaya (2002)
Overall attitude		
Positive	Based on this photo, how positive	Baloglu and McCleary (1999); Lin et al., (2007); Han, Hsu, & Lee (2009)
impression	is your impression of Russia as a destination?	
Behavioral intention	-	
Want2Visit	Does this photo make want to visit Russia?	Chen & Tsai (2007); Chen and Kerstetter (1999); Kozak (2001);
		Shen, Schüttemeyer, and Braun (2009); Milman and Pizam (1995);
		Hem. Iversen, and Nysveen (2003)

^a Only literatures that used all four items are listed. There are more studies that used only one or two items.

the task feasible for respondents, American and Korean 100-photo subsamples were divided into bundles of ten images by random assignment, and each bundle was organized as a separate online survey. The resulting 20 surveys were evaluated by Amazon Mechanical Turks (further M-Turks). M-Turks is "an online crowd sourcing service where anonymous online workers complete webbased tasks for small sums of money" (Crump, McDonnell, & Gureckis, 2013). Use of M-Turks has been gaining popularity in social science research, including tourism studies (Aker, Plaza, Lloret, & Gaizauskas, 2013; Kim, Fesenmaier, & Johnson, 2013; Raghubir, Morwitz, & Santana, 2012), as it allows collection of high-quality data rapidly and inexpensively (Buhrmester, Kwang, & Gosling, 2011). Human intelligence tasks like working with images and videos have been identified as especially suitable for using M-Turks (www.m-turks.com).

Data collection took place over a period of 6 weeks in December 2013—January 2014. Each survey had 53 M-Turk respondents, ensuring that, for every pictorial image, a distribution of scores on each attribute would resemble a normal distribution that centered on a score close to a *true* score. Surveys were guarded against the same survey being taken several times by the same user. Thus, any single photo in a survey was evaluated by different people; however, any single M-Turk could take multiple surveys, and many of them did. The total number of unique M-Turks respondents in all 20 surveys was 318.

While using M-Turks is considered a quick and convenient way to obtain quality data (Berinsky, Huber, & Lenz, 2012), cheating is a well-known problem (Kahan, 2013). Thus, data in each survey were evaluated for *outlying observations*, i.e., respondents who were consistently out of synch with the rest of the M-Turks. Overall, Cronbach's alphas were well over the 0.90 threshold; however, in 16 out of 20 surveys "offenders" were identified and their entire data sets were removed. Then, for each image, the data were examined for *outlying values*: extreme outliers as indicated by SPSS were removed from the data. To provide an example, in Survey 1, one photo represented an open snowy landscape with no people, structures, or trees. Fifty-one M-Turks evaluated that image as Sparse (value "7"), while one person judged it as Overcrowded (value "1"). The final dataset of 200 images of Russia was structured as follows:

- Each photo was an observation produced by either American or Korean tourist.
- 2. Each photo had a score on *Cognitive8* and *Affective4* attributes, as well as on *PositiveImpression*, and *Want2Vsiti* variables. These

- scores were the averages over evaluations produced by M-Turks who responded to the survey where that particular photo was placed (after cleaning, the number of M-Turks was 49–53 per survey).
- 3. For each photo, values for manifest attributes (0 not present on the photo, 1 present on the photo) were taken from Stepchenkova et al. (2014) and added to the dataset.

4. Results

4.1. Russia's perceived destination image: "reading" latent content

Each photo in the dataset had a score on 12 attributes, as well as on the PositiveImpression, and Want2Visit variables. The image of Russia that emerged from the photos was somewhat positive: the mean of the PositiveImpression variable was 4.52 and 4.51 for the Korean and American 100-photo subsamples, respectively (Table 3). Russia was seen as a safe (2.84), clean (2.91), friendly (2.99), and somewhat unique (3.58) destination which is not overcrowded (4.77), and, while being economically developed (3.23), rather more traditional than modern (4.26). With respect to affective attributes, Russia was perceived as a pleasant (2.90) and slightly relaxing (3.12) destination. At the same time, it was not seen as an exciting (3.52) or arousing (3.55) place. Despite producing a slightly positive impression (4.52 for the combined sample), the photos did not generate desire to visit Russia (the combined mean for Want2Visit was 4.14). Further, independent sample t-tests to evaluate the differences in perception with respect to the culture of the tourist image producers revealed that, remarkably, there were no differences between American and Korean sets of photos (Table 3). Since 14 similar tests were conducted, the significance level of 0.05 was adjusted using Bonferroni correction to reduce the probability of type 1 error, and was 0.05/14 = 0.0036 (Dolnicar, 2007). Based on the t-test results, the American and Korean subsamples were pooled together for further analyses.

4.2. Effect of manifest content on latent meaning

A series of regression analyses was conducted, where the dependent variables were one of 12 latent attributes and the *PositiveImpression* variable. Across 13 regression models, only 12 out of 22 manifest attributes were found significant at the 0.05 level in at least one model (Table 4). At the significance level of 0.004 obtained as a result of Bonferroni correction (13 similar regression analyses).

Table 3	
Russia's destination image latent attributes.	

Attribute	Total samp	le	Korean		American	American		T-Test ^a
	Mean	StDev	Mean	StDev	Mean	StDev	t	p-value
Overcrowded-sparse	4.77	1.01	4.78	1.11	4.76	0.90	0.17	
Clean-dirty	2.91	0.82	2.75	0.77	3.07	0.84	-2.81	0.005 ^b
Developed-underdeveloped	3.23	1.17	3.20	1.18	3.27	1.17	-0.41	
Safe-unsafe	2.84	0.67	2.75	0.63	2.93	0.69	-1.93	0.055
Modern-traditional	4.26	1.09	4.19	1.13	4.32	1.04	-0.84	
Friendly-unfriendly	2.99	0.61	2.94	0.58	3.03	0.65	-1.10	
Uniquely Russian-ordinary	3.58	1.35	3.69	1.37	3.48	1.32	1.10	
Touristy-authentic	3.93	0.90	3.89	0.90	3.96	0.90	-0.57	
Pleasant-unpleasant	2.90	0.78	2.87	0.74	2.93	0.81	-0.55	
Relaxing-distressing	3.12	0.70	3.06	0.69	3.18	0.72	-1.26	
Arousing-sleepy	3.55	0.61	3.55	0.59	3.55	0.64	0.09	
Exciting-gloomy	3.52	0.68	3.51	0.64	3.53	0.73	-0.13	
Positive impression	4.45	0.87	4.52	0.84	4.51	0.91	0.03	
Want 2 visit	4.14	0.97	4.08	0.93	4.20	1.01	-0.90	

 $^{^{\}rm a}$ For all but one test, df = 198. Df for Overcrowded-Sparse was 190.196.

^b Results significant at 0.1 level are shown. There are no significant results at 0.0036 level (Bonferroni correction).

 Table 4

 Effect of manifest content on latent meaning.

Independent variable Cognitive	Cognitive								Affective				Positive
	Overcrowded: Clean: sparse dirty	Clean: dirty	Developed: Safe: underdeveloped unsafe	Safe: unsafe	Modern: traditional	Friendly: unfriendly	Uniquely Russia: ordinary	Touristy: authentic	Pleasant: unpleasant	Relaxing: distressing	Arousing: sleepy	Exciting: gloomy	impression
	B (p-value) ^a												
Groups			i	393 (.016)		524 (.000)			379 (.040)				
Few random Crowd	887 (.000)		.481 (.027)										340 (.044)
Nature landscape										364 (.025)			
Urban			450 (.009)		720 (.000)					•			
Rural	.708 (.000)		1.182 (.000)				.820 (.002)	.971 (.000)			.356 (.004)	.356 (.004) .278 (.044)312 (.070)	312(.070)
Tourist space		250(.037)		322(.000)		343 (.000)			316(.005)	316 (.005)332 (.001)		253(.013)	.401 (.002)
Transport/Infra	.410 (.005)												
Outdoors				(000.) 906:	-1.906(.000)		1.193 (.014)						
Way of life		.547 (.012)		.461 (.000)		338 (.035)			.507 (.014)	.506 (.007)			
Architecture							678(.000)						.345 (.005)
Food & things						-1.183(.035)							1.665 (.046)
Multiple R	.431	.332	.463	.412	.369	.405	.409	.388	.376	.368	.325	.312	.408
\mathbb{R}^2	.185	.110	.215	.170	.136	.164	.167		.142	.135	.105	860.	.167
F	F(4,195) =	F(5,194) =	F(3,196) =	94) =	F(2,197) =	F(5,194) =	F(4,195) =	F(2,197) =	F(3,196) =	F(5,194) =	F(3,196) =	F(3,196) =	F(5,194) =
	11.091	4.711	17.846		15.492	7.625	9.804		7.700	6.078	7.700	7.060	7.769
P-value	000.	000.	000		000.	000	000		000.	000	000	000.	000

Results significant at 0.05 level are shown. The significance level with Bonferroni correction applied is 0.004.

the number of significant relationships between latent and manifest attributes is reduced. Since the nature of this research can be considered exploratory, the results are reported for a conventional level of significance (0.05), with the actual p-values noted in parentheses for the reader to judge on the strength of the relationship. The p-value smaller than 0.004 indicates that the relationship between variables was found under the more stringent criterion.

With respect to *Cognitive8*, the appearance of people in groups on the photos influenced perceptions of the destination as being safe (p = .016) and friendly (p = .000). Featuring tourist spaces also helped in forming positive perceptions with regard to safety (p = .000), friendliness (p = .000) and, in addition, cleanliness (p = .037). Images taken in urban locations were significantly associated with perceptions of Russia as a developed (p = .009) and modern (p = .000) destination, while rural areas were associated with perceptions of Russia as being a sparse (p = .000), underdeveloped (p = .000), ordinary (.002), but authentic (p = .000) place. Destination images that pictured way of life of local people had a tendency of being perceived as dirty (p = .012), unsafe (p = .008), and unfriendly (p = .035). With respect to the uniqueness attribute, photos with images of buildings and architecture were more likely to be viewed as uniquely Russian (p = .000). While it may seem counter-intuitive that transportation and infrastructure were associated with sparseness (p = .005), there were a number of photos (especially in the Korean sample) that pictured train tracks in an empty landscape.

With respect to *Affective4*, featuring tourist spaces influenced perceptions of Russia as being a pleasant (p=.005), relaxing (p=.001), and, to a lesser degree, arousing (p=.048) and exciting (p=.013) destination. Rural areas, on the contrary, were associated with perceptions of Russia as being sleepy (p=.004) and gloomy (P=.013). Images picturing Russian people in their everyday activities (the Way of life category) were more likely to be seen as unpleasant (p=.014) and distressing (p=.007). Images of nature landscapes were associated, albeit weakly, with seeing destination as a relaxing place (p=.025). The larger scores on the *PositiveImpression* variable were most strongly associated with such manifest attributes as tourist spaces (p=.002) and architecture (p=.005). To a lesser extent, they were associated with images featuring rural areas (p=.070), few people (p=.044), as well as Russian objects and food (p=.046).

4.3. Effect of latent content on behavioral intentions: mediating role of affect

To test for the relationships between latent image attributes and intention to visit a destination, regression analyses using the combined pool of 200 images were performed on the *Cognitive8* and *Affective4* variables. Among the *Cognitive8* variables, three attributes — cleanliness, friendliness, and uniqueness — were found to be significant predictors of intention to visit (Table 5, Model 1). For the *Affective4*, the model exhibited high multicollinearity, as correlations between the *Pleasant-Unpleasant* and *Relaxing-Distressing* variables and the *Arousing-Sleepy* and *Exciting-Gloomy* variables were 0.931 and 0.944, respectively. High correlations suggested that instead of 4 affective attributes, the data, in fact, had only two. *Pleasantness* and *Arousal* attributes, as having the lowest correlation of 0.676, were selected to represent their respective dimensions. These attributes were found to be significant predictors of behavioral intentions (Table 5, Model 2).

Further, guided by the theoretical proposition that affective states have more influence than cognitive states on tourist behavior, the study investigated the mediating role of affective attributes *Pleasantness* and *Arousal* in the relationship between cognitive latent attributes and intention to visit Russia (Table 5,

 Table 5

 Effect of latent content on behavioral intentions: mediating role of affect.

Independent	Model1:	Want2Visit	Model2:	: Want2Visit Model3: pl		oleasant-unpleasant	Model4:	arousing-sleepy	Model5: Want2Visi	
variable	β	t	β	t	β	t	β	t	β	t
Clean-dirty	278	-5.391	_	_	.373	10.570	.127	2.195		
Friendly-unfriendly	384	-6.052	_	_	.665	15.361	.325	4.584		
UniquelyRussian- ordinary	434	-18.571	-	_	.084	5.237	.181	6.924	325	-17.708
Pleasant-unpleasant	_	_	809	-15.951	_	_	_	_	628	-18.936
Arousing-sleepy	_	_	524	-8.184	-	_	-	_	224	-5.182
Multiple R Adjusted R ²	.928 .858		.907 .821		.948 .897		.753 .560		.965 .931	
F test statistics, significant	F(3, 196) p = .000)=402.270,	,	F(2, 197) = 458.068, p = .000		F(3, 196) = 579.472, p = .000		F(2, 197) = 35.407, p = .000		= 894.453,
Durbin-Watson	1.965		1.932		2.063			1.799		

Note: All coefficients are significant at 0.001 level.

Models 1, 3, 4, and 5). According to Baron and Kenny (1986), three conditions must be met to establish mediation. First, the independent and dependent variables must be significantly associated. This is what can be seen in Model 1, where three attributes (cleanliness, friendliness, and uniqueness) are significantly associated with the Want2Visit dependent variable. Second, the independent variable must have a significant association with the mediator. From Models 3 and 4 it can be seen that the three cognitive attributes are significantly associated with both mediators, Pleasantness and Arousal, Third, a significant effect of the mediator on the dependent variable should be present when both the independent variable and mediator are tested as independent variables. In Model 5, Pleasantness and Arousal are statistically significant; however, with respect to the other three independent variables, only Uniquely Russian is positively associated with the Want2Visit dependent variable. Results presented in Table 5 support the conclusion of affective destination attributes acting as partial mediators of behavioral intentions: Uniquely Russian was the only cognitive attribute from Model 1 that remained statistically significant in Model 5. Thus, the findings support the theoretical proposition that affective states have greater influence on behavioral intentions compared to cognitive evaluations.

5. Discussion

The image of Russia that emerged from the photographs taken by Korean and American tourists while visiting the country was somewhat positive; however, tourist photographs failed to produce a strong positive impression or to generate desire to visit the destination on the receiving end of communication. The study found that the manifest content of tourist photographs significantly influenced attitudes towards the destination: for example, respondents had a tendency to perceive rural areas as sparse, underdeveloped, ordinary but authentic, sleepy, and gloomy. While the anchoring points of the semantic differential scales should not be equated with being "positive" or "negative" (as for one person "underdeveloped" is a negative destination feature and for another it may be neutral and even positive), when explicitly asked about overall attitudes that the images produced, presence of such attributes as tourist space and architecture were associated with an increase of the PositiveImpression score while few random people and rural areas were associated with a score decrease. Taken together, the findings indicate that the appearance of such manifest attributes as rural areas, everyday activities of Russian people, and unpopulated urban streets on the photographs were primarily associated with the destination seeing as dirty, underdeveloped, sparse, ordinary, and sleepy. Images featuring tourist spaces were associated with cleanliness, safety, and friendliness, as well as producing feelings of pleasantness, relaxation, arousal, and excitement. The perception of destination uniqueness was affected by the only manifest attribute of architecture. The reader is reminded, however, that these results were obtained in the context of a particular destination (Russia) and should be verified in other settings. It is quite possible that for another destination, perceptions of latent attributes will be affected by different manifest features. It is worth mentioning that the recently published research by Pan et al. (2014) also found that certain image attributes produce affective feelings of pleasantness and excitement.

The study also found that both cognitive and affective latent attributes influenced tourist behavioral intentions. Moreover, the study supports the theoretical proposition that affective latent attributes have a stronger impact than cognitive attributes on desire to visit a destination (Russell & Snodgrass, 1987) by testing the mediating role of affect in the relationship between cognition and behavioral intention. Such destination features as cleanliness, friendliness, and uniqueness were the most influential in generating the desire to visit Russia (Table 5, Model 1); however, Uniquely Russian was the only cognitive attribute which improved the model when affective attributes of Pleasantness and Arousal were present (Table 5, Model 5) (cf. Qu, Kim, & Im, 2011). While similar results about the relationship among cognition, affect, and behavior have been obtained by previous research (Baloglu & Brinberg, 1997; Qu et al., 2011; Sönmez & Sirakaya, 2002), the novelty and contribution of this study is in employing usergenerated content, not human subjects, as the data source. Thus, from the methodology perspective, the study tested and expanded the feasibility of visual user-generated content as a research mode in tourism applications.

One of the findings of the study was that the perceptions of Russia derived from the American and Korean photos did not differ on any single latent attribute (*Cognitive8* and *Affective4*). This finding is considered by the authors as a remarkable result and is interpreted as a country having *true* scores on a variety of destination features, such as cleanliness, safety, level of economic development, etc. It seems to suggest that when photos are taken with no specific agenda (i.e., not for marketing purposes) but in a naturally occurring process of destination consumption, these destination features are reflected in the images even if the intent of the image taker was to photograph an interesting building, a group of local people, a street scene, or a rural landscape. Latent attributes with their true scores can be considered as "organically present" in a destination, thus, casting a new light on the term "organic

destination image" (Gartner, 1994), that is, the image reflecting destination features as they really are as opposed to the induced image, that is, "place-myths" managed by DMOs. Moreover, the study demonstrated that destination's true scores on a number of latent attributes can be captured by a sender in a photograph, transmitted in a photo-message, and interpreted by a receiver. There were multiple senders, photographs, and receivers in this study: however, the mean destination scores on the attributes did not differ between American and Korean samples. The results suggest that when viewing the images, observers evaluate a particular attribute as a true score plus an error score (Schroeder, 1984). When the scores are averaged over a finite number of repeated measurements produced by a large number of observers, the mean centers on the true score because the average of error scores for repeated measurements would be zero. Each latent attribute in the study has been measured by a total of 10,600 observations (53 for 200 photos), which satisfies minimal criteria (N > 10,000) for measuring true score (Lord, 1969).

While "no two people see a destination in exactly the same way" (Dann, 1996: 52), the findings of this and the previous study (Stepchenkova et al., 2014) indicate that with respect to the culture of image producers, this statement rings "truer" for manifest than for latent content. Tourists with different cultural backgrounds do have a tendency to differ in what they photograph, as was shown in the previous study, but their photos are "decoded" in the same way on the receiving end of communication with respect to the latent destination features. It suggests that DMOs have some influence over the manifest content, since tourists often want to photograph iconic features of the destination in exactly the same way they had previously seen in various induced and organic materials. The iconic images of Russia's architectural heritage such as historic buildings/sites, theatres, and museums produced by DMOs are likely to contribute to the destination being perceived as a unique place and increase positive impression and desire to visit. Latent content, as it appears from the study, leaves little space for DMOs to construct plausible "place-myths," as technology acceptance and access to the Internet from virtually anywhere would change, if not has already changed, the balance of power between induced DMO materials and user-generated content in affecting destination perceptions of potential tourists (Olga & Raj, 2013; Stepchenkova & Zhan, 2013; Urry & Larsen, 2011). The true scores of latent destination attributes will be reflected, or "organically present", in destination photographs posted by Internet users and will contribute to the organic image of the destination. Therefore, the only way for a destination to alter perceptions of potential tourists is to improve on the latent attributes, especially on those that are the most influential in affecting attitudes of tourists-to-be towards a destination. For Russia, the findings of this study suggest that efforts should be centered on improvement of such attributes as the level of cleanliness and friendliness, the two attributes besides uniqueness of the destination that affect the desire to visit.

Further, considering the role of affect, manifest features that contribute to the higher levels of pleasantness and arousal, that is, nature landscapes and tourist spaces, should be brought into focus by destinations' DMOs. With respect to Russia, previous research reported that tourists are mainly attracted by tourist places like Moscow and St. Petersburg (Hilton Worldwide, 2012) and nature-based tourism resources in Russia have a potential to offer unique sightseeing experiences and activities (Stepchenkova & Morrison, 2006, 2008). The importance of the natural, historic, and cultural features of Russia that emerged from this study is in line with cultural and nature tourism being identified as the main directions for the development of Russia's tourism offers (Hilton Worldwide, 2012). Overall, it is essential for marketers to distinguish those

sets of destination attributes of both cognitive and affective natures that in the mind of potential tourists are "responsible" for destination representation and predisposition towards a destination (Dubé et al., 2003). As marketing and branding literature suggests (Batra & Ahtola, 1991; Crites et al., 1994), identification of such sets of attributes will aid in destination positioning and creating value for tourists, as well as building competitive advantage with respect to tourist segmentation. Thus, more work is needed in the direction opened by this study, that is, which sets of destination attributes are the most influential in driving positive consumer perceptions and behaviors.

5.1. Methodological considerations and limitations

To study the latent content of tourist photographs and its interplay with the manifest content, the structure of the 100-photo samples to be compared was carefully considered. In the previous study by Stepchenkova et al. (2014), the two larger sets of tourist photographs made by American (658 images) and Korean (597 images) tourists to Russia were found to be different with respect to a number of manifest attributes. While the core of the Russian destination image—urban, architecturally interesting, culture-rich, and spacious— was similar for both cultural groups, the Korean tourists exhibited more interest in leisure activities such as sightseeing, visiting museums and art collections, going to performances, and shopping, while American tourists disproportionally more images of rural areas, places where Russian people live, and photos picturing the daily life of Russian people. Stepchenkova et al. (2014) concluded that certain destination features are of more interest to tourists of a particular cultural background. Thus, to investigate whether photographs made by tourists belonging to different cultures project the same destination image, it was imperative to select photo samples with similar manifest structure; otherwise, pictorial images made by, for example, Korean tourists and that are skewed towards urban areas, tourist sites, and leisure activities, might "automatically" project more "positive" destination images (that is, those perceived as more safe, clean, or friendly). Table 1 illustrates how similar the two 100-photo samples were with respect to their manifest content.

The data collection process was conducted over a period of 6 weeks (December 2013-January 2014), as surveys were released in small clusters. Korean-photograph surveys were posted over the weeks of Christmas and New Year and took longer to obtain the necessary number of responses (53 unique M-Turk respondents for each survey). The total number of unique M-Turks respondents for Korean and American surveys were 237 and 121, respectively, which could be attributed to the timing of the surveys, as well as the increased compensation for the American surveys, which better stimulated M-Turks to take multiple surveys in the second half of the data collection period, therefore, reducing the total number of unique respondents for the American photographs. The issue of sharing survey codes among M-Turks in order to get paid without completing a survey was detected, but it was relatively minor. Data "cleaning" did not reveal large amounts of suspect data either, supporting previous research indicating that the data provided by M-Turks are, in general, reliable (Berinsky et al., 2012; Buhrmester et al., 2011).

The cultural composition of the M-Turks sample was recorded during survey administration. The categories were taken from Schwartz (2006) who quantitatively derived seven cultural groups using data on 70 countries: English-speaking countries, Western Europe, Eastern Europe, Asia (Far East), Latin America, Islamic, and Other. The American and South Korean options were added as separate categories. The cultural composition of the sample was tilted towards respondents who identified themselves as American

(69.8%), with Asian being the second largest group (23.3%). In a pretest of the surveys, 50 graduate students belonging to American and Korean cultures evaluated several photos of Russia on latent attributes: no differences between American and Korean respondents were found. However, considering the small numbers of images (only ten photographs) and participants (about 25 in each group) in the pre-test, future research is desired on whether cultural background has an effect on "reading" latent content of the images.

Review of previous research identified more than 150 attributes that had been used for assessing destination image. However, the reader is reminded that these attributes were overwhelmingly used in surveys that asked human subjects about their existing images for one or several travel destinations rather than to evaluate pictorial images captured in tourist photographs. Researchers reduced the list based on the frequency of usage in previous studies and supposed applicability in the visual context. Applicability of a particular latent attribute for research involving visuals was further tested through several rounds of preliminary investigations involving graduate students from a large U.S. university. As a result, a number of "promising" attributes came forward, and after removing attributes with close meaning (e.g., quiet/busy, calming/stressful, or comforting/terrifying), the number in the set was significantly reduced. A parsimonious list of destination attributes by Echtner and Ritchie (1993), which was derived through a methodologically formalized procedure, was instrumental to finally arrive to the list of 12 attributes used in this study. While the process of attribute selection in this study cannot be described as arbitrary, it was not strictly formalized, either. In retrospect, researchers regret that they did not include the attribute "beautiful-ugly" in the list. Thus, research is needed to compile a list of latent attributes suitable for visual research on destination image, possibly using elicitation technique as a method.

6. Conclusion

In the sender-message-receiver communication model, tourist photographs project organic destination images which are interpreted on the receiving end of the communication channel by potential tourists, influencing their tourism-related attitudes and affecting behavior. This study investigated how photographs taken by American and Korean tourists while visiting Russia and posted in travel blogs and on media-sharing websites affect perceptions of Russia as a travel destination by those who view these images. The study specifically focused on latent content of tourist photographs with respect to such destination attributes as crowdedness, cleanliness, level of economic development, personal safety, level of modernity, friendliness, uniqueness, and extent of commercialization, as well as affective qualities of destination places such as being pleasant, relaxing, arousing, or exciting. Researchers evaluated the interplay between the manifest and latent content of the images and how each type of content separately and both types together affected attitudes of viewers towards the destination and their desire to visit it.

From a methodology perspective, the study proposed an approach to operationalize latent content of tourist photographs that would allow testing theoretical propositions and hypotheses and, thus, expanded possibilities for using visual content, and usergenerated content in general, as a research mode in tourism and hospitality applications. From a theoretical angle, the study tested the theoretical proposition about the interplay between cognitive and affective evaluations and behavioral intentions using the domain of visual images, rather than surveys involving human subjects. The results indicate the mediating role of affect and its

stronger impact on behavioral intentions, which is in line with theories and previous research; the congruency of results can be considered as a validation of the proposed approach. The findings of the study also suggest that the culture of image producers does not affect perceptions of latent destination attributes of both cognitive and affective natures on the receiver's end of communication, which implies that a destination may have *true scores* with respect to a number of latent attributes, and these scores influence the attitudes of image viewers towards the destination. From the practitioners' angle, the study investigated which specific destination features are the most influential in affecting perceptions and behavior of potential tourists about a destination, using Russia as an example.

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