Congruity and Incongruity between Projected (DMO) and Perceived (UGC) Destination Image – A Comparative Content Analysis

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Abstract

User-Generated Content (UGC) in the digital world has gained credibility as a kind of word-of-mouth in recent years with the advent of new Information and communication technologies (ICT). Travelers rely on UGC information than DMO content while the travel decision-making process. No previous research has been conducted to correlate both UGC and DMO destination images of Kerala. The study analyzes the dominant attributes of the destination image of Kerala presented through DMO and UGC Visual Content. Also, find out whether there is any commonality in destination attributes between pictures posted by tourists (UGC) and DMO or vice versa. Images of Kerala were gathered for this study from DMO's website (www.keralatourism.org), Instagram, and Facebook, two of the most popular social media platforms worldwide. By applying content analysis methodology to the collected DMO and UGC images of Kerala Tourism, the research objectives are attained. Data from the last five years were considered for the study to understand the latest trends and changing patterns. The results aid tourism stakeholders in planning effective social media marketing strategies to capture the imagination of tourists, hence creating a better destination image online.

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Introduction

Creating and maintaining destination images is always a challenge for Destination Marketing Organizations (DMOs), even though numerous documentations have happened in this arena. Until the emergence of Web 2.0, DMOs were the primary source of information for tourists. Overt Induced agents or materials, as proposed by Gartner (1994) used extensively by DMOs to promote the destination. This material includes both print and electronic media like brochures and Televisions. According to E. Christou (2016); Mak (2017), the emergence of Web 2.0 technology has accelerated the "Travel 2.0" phenomenon, which is characterized by a high level of social interaction and exchange of user-generated, travel-related content among Internet-based tourists. User Generated Content, more specifically 'Tourist Generated Content' (Mak, 2017) spreads Electronic Word of Mouth (eWOM), which will impact Tourist buying behavior. The expansion of UGC on social media unquestionably had an effect on the entire travel process in the tourism industry, including the pre-travel, during-travel, and post-travel phases (Narangajavana Kaosiri et al., 2019). Tourists started to view social media content as extremely reliable and accurate. According to the study by Adam Bird et al., (2019), consumers have more faith in UGC than in their friends and family. Destination image is defined as the "sum of beliefs, ideas, and impressions that a person has of a tourist destination." (Crompton, 1979) Destination Image is generally categorized into two types based on the supply-demand perspective as proposed by Irving Rein, Philip Kotler (1993). The first category is Projected image, which is the "image that a destination intends to create in the minds of tourists through tourism marketing efforts" (Selby & Morgan, 1996). However, perceived destination image refers to tourists' understanding and impression of the location (Kim & Lehto, 2013). Achieving a high degree of congruity between projected and perceived image is vital for the overall development of the destination (Sun et al., 2021). Reducing the difference between destination image categories helps retain the established tourism market and explore new markets (Sun et al., 2021).

Numerous studies have been undertaken on destination image (Fayzullaev et al., 2021; Gartner, 1994; Gunn & Taylor, 1973; Mak, 2017) and Projected-Perceived images (Carvão, 2010; Mak, 2017; Stepchenkova & Zhan, 2013; Sun et al., 2021). Studies focusing on the macro perspective, such as countries and continents, will provide an overview of the circumstances. However, a micro-study of a region/state will give in-depth wisdom since tourism is an essential tool for regional development (Bruno Jansson, 2006). Many research works concentrate on the Projected-Perceived images of Nations (Mak, 2017; Stepchenkova & Zhan, 2013; Sun et al., 2021). Nonetheless, only some studies worked on the regional level (Garay Tamajón & Cànoves Valiente, 2017; Hunter, 2012). Moreover, most earlier studies were based on textual data, such as mini blogs and websites. Fewer studies were undertaken using a visual representation of destination images (Stepchenkova & Zhan, 2013)

This investigation examines the congruity between the Projected and the Perceived Image of Kerala Tourism. Moreover, the study explains the congruity between Projected-Perceived Images by building maps of geographical distributions collected from image samples. These objectives will enable DMOs and other Tourism stakeholders to recognize tourists' perceptions to take corrective measures.

The research mainly focuses on the following research questions.

RQ1. Do the Projected Image by the Destination Marketing Organization of Kerala, and the Perceived Image by the tourists who upload Visual Content on Social Media platforms create harmony in terms of destination attributes? This problem was analyzed by carrying out a comparative content analysis (Stepchenkova & Zhan, 2013).

RQ2. Which geographical areas of Kerala are regularly portrayed in the projected and perceived images? Is there any harmony between DMO and UGC images regarding the geographical distribution of various locations within the study area? (Stepchenkova & Zhan, 2013). A comprehensive map of geographical regions mentioned in the DMO and UGC pictures will answer this question.

Literature Review

User Generated Content (UGC)

User-generated content (UGC) refers to "media content created by the general public instead of paid professionals and is primarily distributed online via Web 2.0 technologies" (Daugherty et al., 2008; Mak, 2017). Web 2.0 is "the second generation of web-based services that have gained massive popularity by letting people collaborate and share information online in previously unavailable ways" (Elton Noti, 2013). In the tourism and hospitality industry, users of user-generated content use it to obtain travel-related information and make decisions (Ukpabi & Karjaluoto, 2017). Tourism is a hedonic experience. Tourists need the best travel experience. Therefore, they will gather the information by referring to fellow travelers' content on the internet for decision-making (Ukpabi & Karjaluoto, 2018). Studies (Sparks & Browning, 2011; Wang, 2012) analyze tourist behavior while planning a trip regarding UGC. Visitors rely more on UGC information than DMO-induced content, even though they seek input from both, making UGC content more persuasive. Yet researchers are raising concerns over manipulating the reviews on tourism products as a form of revenge and altruism (Ukpabi & Karjaluoto, 2018; Wang, 2012).

UGC is an electronic Word of Mouth (eWOM) communication in either text, photo, and video form. According to (Mak, 2017; Stepchenkova & Zhan, 2013), Visual UGC or Photographic TGC (Traveller Generated Content) is a term that refers to static graphic material that is made and shared on the internet by tourists, most frequently in the form of travel photographs. Referring to the title "An Instagram is worth a thousand words" (by Abbott et al., 2013), UGC as a form of images plays a vital role in building a destination image. Amid all these positive aspects of image content, there is a high chance of absorbing the same inadvertently sometimes. (Jenkins, 2003) confirms the statement by referring to role of television and photography in tourist travel pattern distribution. This landmark study used user-generated content from Instagram as the perceived image and photos from the official DMO website and DMO social media accounts as the projected image.

Projected and Perceived Destination Image

The saying "a picture is worth a thousand words" stresses the importance of images in destination promotion and marketing. According to (Jenkins, 2003), Visual tourist destination images are a form of text. The term "text" is not limited to mere textual data but photographs, maps, and paintings. These visuals can significantly influence the choices of tourists (Jenkins, 2003). Destination Promoting Organizations (DMOs) are entrusted with marketing their particular regions/countries to the target market and relevant stakeholders (Choi et al., 2007). Thus, the attempt of DMOs to create an impression in the minds of travelers through their tourism marketing efforts (Sun et al., 2021) is considered the key to success. Thus, the image created by DMOs through various marketing efforts or a projected image among tourists acts as a pull factor in the destination decision process (Andreu et al., 2000). At the same time, it is essential to identify the tourist's perception of a destination, i.e., Perceived Destination Image, to determine destination competitiveness (Andreu et al., 2000). Various studies underline the necessity of considering tourists' perceptions of a destination (Andreu et al., 2000; Frank.M., 2008; Hunter, 2012; Mak, 2017; Stepchenkova & Zhan, 2013; Sun et al., 2021). This seminal paper collected perceived image samples from Instagram (Marine-Roig et al., 2017). The article (Marine-Roig et al., 2017) explains that Instagram enables tourists to rapidly share their creative experiences in tourist locations, which may reflect their positive or bad encounters.

Study Area – Kerala

The most evolved and developed Indian state, Kerala, competes globally on developmental indexes such as a 100% literacy rate and excellent quality of life (Devasia & P. V., 2022). Kerala Tourism has been promoted the land as 'God's own Country' since the 1990s. Kerala declared tourism as an industry in the 1980s, way before other Indian states began to take tourism promotions seriously. Department of Tourism, Government of Kerala, act as DMO for promoting and marketing tourism activities (Devasia & P. V., 2022). Projected image Pictorial samples for this study has taken from the official website of Kerala Tourism (*Kerala Tourism*, 2022) and social media handle (*Kerala Tourism Facebook*, n.d.; *Kerala Tourism Instagram*,

2022). According to the findings of the research (Kumar et al., 2022), Kerala Tourism is one of the Indian state DMOs active on more than eight social media platforms and more engaging on Facebook. Additionally, Kerala Tourism has offered the highest level of user engagement with the help of quality content. Further, (Kumar et al., 2022) found Kerala's distinctive selling propositions: natural attractions, village life experience, and responsible tourism initiatives, which incline with the destination attribute findings of this study. To enhance the tourist experiences in the digital world, Kerala Tourism DMO introduced 'MAYA,' a 24/7 chatbot to enable tourists to seek information and updates (*Maya Chatbot*, 2022). The feature is further extended to their Facebook page as well.

Methodology
Data Collection

A projected image of Kerala is the pictures portrayed in the Kerala Tourism official web portal (www.keralatourism.org), photos from the official Facebook account, and the photos posted on the official Instagram handle (keralatourism). The official website of Kerala Tourism categorized whole images into 19 thematic categories, and again the same images come under various geographical regions. Thus, data from thematic categories were downloaded using Image Downloader – Imageye google extension tool. From the 506 posts sample, 352 image posts were used for the final analysis. One hundred and Fifty-four images were excluded from the study since they contained low-resolution photos, logos, banners, and other irrelevant content.

To examine the RQ2, geographical information of the DMO image samples is essential. Instagram allows its users to tag the location with images in the post (*Instagram Location Tagging*, 2022). Subsequently, the geographical data of the DMO images assembled, if they were available in the post, as per (Pan et al., 2007).'s approach. Using Instagram Profile Scraper phantom (*Instagram Profile Scraper*, 2022), One thousand three hundred forty-seven location details were extracted from Projected image samples. The data is segregated and categorized into 14 different districts to generate a comprehensive map of geographical regions. Similarly, the study gathered User Generated Content location specifics following the same method and pulled out 1092 location details. In like manner of Projected

image location details, the Perceived image location is also grouped to create a comprehensive map of geographical regions.

User-generated content, hereafter referred to as the Perceived Image in this study, was represented by pictures from Instagram (www.instagram.com). Instagram is a free application for sharing photos and videos on both iOS and Android devices. Their service permits users to upload photos and videos, which they can then share with their followers or a small group of close friends. In addition, they can view, comment on, and like Instagram posts posted by their friends (*Instagram*, 2022). Instagram was the fourth most popular social media platform in terms of user numbers as of January 2022. As of January 2022, India had the highest number of Instagram users, with over 230 million users (S. Dixon, 2022). Hence, the authors found that the data from Instagram will represent the UGC of Kerala Tourism images in this study.

Since the data collection from Instagram is complex and contains a plethora of visual content, the authors decided to download and analyze the visual media posted since 2017, i.e. the last five years. Perceived image data were collected using the 'Instagram Hashtag Search Export' feature in phantomburstor.com – an online tool to Extract the most popular Instagram posts linked to a hashtag or location (*Instagram Hashtag Search Export*, 2021). Two popular hashtags depicting the true sense of Kerala Tourism were used to filter the images. i.e., #keralatourism and #keralagram. The authors took a total of 12,481 image samples. Four hundred-seven samples were finalized for analysis.

Table 1 indicates the total samples chosen for the study after excluding irrelevant content such as repeated images, logos, and banners. Lohr (Sharon L Lohr, 1999) proposes a technique for systematic random sampling when a population list is absent or when the List is organized relatively randomly. The systematic random sampling method was used to select the sample of the perceived image each year due to the abundance of data available online.

Table 1: Instagram sample

Hashtag	2017	2018	2019	2020	2021	2022	Total
#keralatourism	33	58	55	13	18	14	191
#keralagram	37	65	60	15	23	16	216

TOTAL	407

Data Analysis

The research used content analysis for the chosen Projected Image (N = 352) and Perceived Image (N = 407). We manually investigated the whole sample data and decided to adopt the few destination image attributes developed by (Stepchenkova & Zhan, 2013) in their exploratory study on Peru post-consultation of the research by (Albers & James, 1988; Echtner & Ritchie, 1993; Glaser, B. G., & Strauss, 1967; Neuendorf, 2017). Most of the destination image attributes conceptualized by (Stepchenkova & Zhan, 2013) directly align with the Kerala destination characteristics. These include; Architecture and buildings, Nature and Landscapes, and People (The complete List is given in Table 2). Furthermore, the Authors developed specific attributes through observation and discussion, like Transport and infrastructure. The authors went through several stages of comparison coding to clarify and improve each category before eventually describing them with illustrations in the coding manual.

This exploratory study in the qualitative method employed in comparative visual content analysis examines the congruity of Projected image and perceived image and vice versa. Content analysis is a methodical, repeatable procedure for grouping numerous visual and textual categories according to well-defined coding principles (Berelson, 1952; Krippendorff, 1980; Weber, 1990). According to Krippendorff (1980) and Neuendorf (2017), every image can be considered a single unit of analysis (Mak, 2017; Zhang et al., 2021). Earlier studies by (Pan et al., 2007; Theo Van Leeuwen and Carey, 2000) recommend that each photo can be coded into a maximum of four categories. Thus each image was coded into a maximum of two categories in this study, considering the multidimensional aspects of image samples. Table 2 describes the categories whose frequency in the combined Projected and the perceived sample is greater than 2% so that the reader can better understand how the data were coded (Due to space restrictions, illustrative examples are not included).

Categories	Projected Image (N=352)	Projected image (%)	Perceived Image (N=407)	Perceived image (%)	Total	Total (%)	Chi-Square	p-Value
Architecture and buildings	9	2.6	33	8.11	42	10.66	11.12752	0.0008
Art and artforms	27	7.7	19	4.67	46	12.34		
Domesticated animals	4	1.1	3	0.74	7	1.87		
Festival and rituals	37	10.5	6	1.47	43	11.99	28.8444	0.0001
Food	49	13.9	8	1.97	57	15.89	38.83786	0.0001
Leisure Activities	23	6.5	30	7.37	53	13.91		
Nature and Landscape	71	20.2	75	18.43	146	38.60		
Outdoor/Adventure	16	4.5	31	7.62	47	12.16		

Table 2 - Destination Image Attribute Frequencies - Chi-Square Analysis

Categories	Projected Image (N=352)	Projected image (%)	Perceived Image (N=407)	Perceived image (%)	Total	Total (%)	Chi-Square	p-Value
People	42	11.9	51	12.53	93	24.46		
Plants	9	2.6	22	5.41	31	7.96	3.909712	0.048
Tourism Facilities	4	1.1	23	5.65	27	6.79	11.21424	0.0008
Traditional Clothing	11	3.1	18	4.42	29	7.55		
Transport and Infrastructure	13	3.7	51	12.53	64	16.22	19.09308	0.0001
Urban Landscape	4	1.1	4	0.98	8	2.12		
Way of Life	14	4.0	11	2.70	25	6.68		
Wildlife	13	3.7	18	4.42	31	8.12		
Other	6	1.7	4	0.98	10	2.69		

Table 3 - Destination Image Attribute Frequencies - Chi-Square Analysis

Results
Destination attributes frequencies
The congruity of the UGC and DMO visuals across each category was assessed using chi-square analysis, which statistically measures the frequency of the categories for the projected images and perceived images (Stepchenkova & Zhan, 2013). The test results revealed that the three attributes that were most frequently represented in both projected and perceived images—nature and landscape (38.60%), people (24.46%), and leisure activities (13.91%) did not differ significantly in statistics. Six out of eighteen identified destination image attributes disclosed statistical differences (See Table 2), which include Transport and Infrastructure, Food and Architecture and Buildings. It is apparent from Table 2 that tourists who are visiting Kerala upload more content about the Culture, tradition, and architecture of Kerala, along with Natural attractions. In contrast, DMO tends to highlight typical Kerala Festivals and Cuisine. As shown in Table 2, the results state congruity between the projected and perceived images in top represented attributes.

The most frequently represented attribute of Kerala Tourism – 'Nature and Landscape'- displays the highest congruence between projected and perceived images. They even complete the "hermeneutic cycle (Urry, 1992) in which travelers copy or recreate images they have seen on DMO websites or social media handles (See Exhibit a and Exhibit b). In the 'People' attribute, the Projected image sample exhibits mostly group images of tourists, either posing for a photo as a group in front of pilgrim centers, natural resources, and viewpoints. DMO included location name boards and tourism promotion banners in the images taken. On the other hand, the majority of the pictures that are perceived are personal in nature, such as self-portraits and selfies. However, travelers devote a lot of attention to taking photos with the sites they visit in the background. A comparison of the two sets of findings in the category of "Transport and infrastructure" reveals the most significant disparity that exists between the two kinds of destination images. While DMO content is restricted to a few houseboat images, tourists extensively post on public transportation (Kerala RTC Buses, Metro trains and Railway stations, ferries, and trains) and contract carriages. According to (Le-Klähn & Hall, 2015), Public transportation plays a vital part in influencing the experience of tourists. Passengers are drawn to a network of roads that are well-connected and extensive (Le-Klähn & Hall, 2015). A high frequency of public transit to the destination will

ultimately attract more tourists and improve the image of the destination.
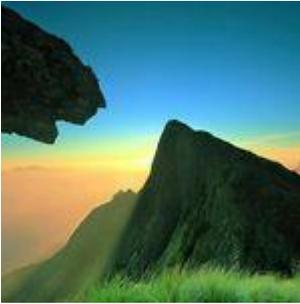

Exhibit a - Projected Image

Exhibit b - Perceived Image

Geographical Maps: representation of Kerala regions

The objective of the first research question (RQ1) was to compare the projected and perceived Image of Kerala. The results were determined using the Chi-square test. The objective of RQ2 was to produce a detailed geographical map of both perceived and projected images of Kerala tourism. Utilizing ArcGIS software, a comprehensive geographical map was created. Almost every DMO image post contained either location tags or destination descriptions. Nonetheless, some user-generated images lacked location information. In this instance, authors extracted location information manually from the post's caption and identified the area with which they were familiar.

The most striking conclusion drawn from **Error! Reference source not found.** is that projected images are disproportionally distributed across fourteen districts in the state. Idukki and Thiruvananthapuram Districts' images were projected at a higher rate than Ernakulam's (14%). Surprisingly, seven out of fourteen districts account for less than 5% of content distribution. Pathanamthitta and Malappuram (1% each) had the least projected destination images. Another critical finding on Perceived images (see **Error! Reference source not found.**) was that the Districts of Ernakulam (15%), Thiruvananthapuram (14%), Thrissur (11%), and Idukki (10%) were featured more in Tourists' social media posts. On the other hand, Kollam and Pathanamthitta (3% each) districts became the least highlighted by tourists.
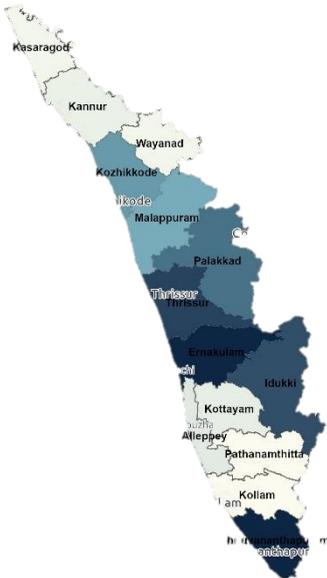
Figure 1: Geographical
Representation of Perceived Images (Left End)
(The colour intensity of both maps shows the
frequency of occurrence)

Figure 2: Geographical
Representation of Perceived Images (Right End)
(The colour intensity of both maps shows the
frequency of occurrence)

Discussion

Congruity between Projected (DMO) and Perceived Image (UGC)
The study intended to find the symmetry between DMO and UGC
images of Kerala Tourism. The authors have chosen two research
questions to work on and find the harmony between the two
destination images. Visual content analysis was employed to
identify the destination image attributes from the selected samples.
Followed by Chi-square test was conducted to compare the DMO
and UGC destination image attributes statistically. These methods
identified prominent destination attributes of Kerala Tourism and
the significant difference between UGC and DMO destination image
attributes.

From the combined total of DMO and UGC images samples, the four
most frequent destination attributes were nature and landscape,
people, Transport and infrastructure, and food. There was no
statistically significant difference between UGC and DMO attributes

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pertaining to the frequencies of nature and landscape, which are "produced, projected, perceived, propagated and perpetuated" (Jenkins, 2003) by both UGC (75) and DMO (71) images, and people. DMO images in the 'nature and landscape' attribute highlight hills covered with tea plantations, beaches, and lakes. Meanwhile, tourists are extending the arena to waterfalls and viewpoints. Nevertheless, there was a considerable discrepancy between the two destination images (UGC and DMO) detected for the 'Transport and Infrastructure' and 'food' attributes. It is somewhat surprising that, in the case of the transport and infrastructure destination attribute, tourists uploaded more (51 images), and DMO images were less (13). A thorough examination of the sample data reveals that DMO contents are less concerned with transportation and infrastructure. They published a few images of Alleppey's houseboats and tourism campaign-related images. In contrast, UGC incorporated images of scenic roads with hair pins (Valparai and Vattavada) and viewpoints, hanging bridges, metro trains (Cochin), long highways, and images of public transportation, including carriages of Kerala Road Transport Corporation. In contrast, the following destination image attribute happened frequently, yet a substantial difference was discovered. i.e., food. DMO projected the food image attributes more (49 images). At the same time, UGC images were eight in number.

In destination marketing, gastronomy plays a key role. Through their advertising platforms, more DMOs are attempting to promote local and distinctive cuisine (Yoo Ri Kim & Caroline Scarles, 2023). Considering only the image sample, it is impossible to conclude that there is less UGC interaction regarding food attributes. Travel vlogs perceive tourists intensely and complete the circle of representation (Jenkins, 2003; Urry, 1992) by creating their own food reels/vlogs on social media. These results, therefore, need to be interpreted with caution. Tourism facilities, another destination attribute that significantly differs between DMO and UGC images, demand a thorough discussion. Though DMO uploaded images of tourism facilities like tourism information centers, more pictures were uploaded by tourists. It varies from hotel rooms to jungle camps and parks. (Mandić et al., 2018) point to the role of tourism infrastructure in tourism development.

A well-developed tourism infrastructure at a destination indicates competitiveness and increases its influence in the market (Mandić et al., 2018). Images of tourism infrastructure highly influence tourists in the travel decision-making process. A number of prior studies (Çetin, 2011, 2012; Yabanci, 2022) have demonstrated the close relationship between tourism and architecture. Examining the Architecture and Buildings category unveils destination-specific architectural monuments, such as Jadayu Rock at Kollam and Azhimala Siva Statue at Thiruvananthapuram attract tourists more. This study also examines the geographical distribution of image content throughout the state of Kerala by both tourists and destination marketing organizations. It is vital to discuss the results because imbalanced marketing and promotional tactics may deteriorate a region's economic and social development while more promoted regions gain momentum. Additionally, understanding UGC geographical distribution patterns will aid DMOs in updating or developing new tourism strategies for the destination. In the long run, these strategies will amplify the overall development of the destination. **Error! Reference source not found.** shows the g eographical distribution of projected image from 2017 to 2022. Thiruvananthapuram district bags the top position in the projected image with 261 photos. Thiruvananthapuram, often called Trivandrum, the capital city of Kerala, is home to world-famous beaches (Kovalam, Varkala), heritage and pilgrimage sites (Pathmanabha Swami Temple, Attukal Devi Temple, Kuthira Malika and so on). This result may be explained by the fact that four of the top five districts with the most projected destinations are from Southern and central Kerala. Only one district (Waynad) is from Northern Kerala. This inconsistency may be due to various reasons. The first one is Kerala Tourism DMO still promotes conventional tourism circuits, which begin from Cochin, followed by Munnar, Thekkady, and Alleppey. All these places fall under Southern and Central Kerala.

According to *20 Year Percepective Plan of Kerala*, (2022 p.10), Fund allocation by the Department of Tourism to various state regions (Southern + Central Kerala = 85% of the total fund, and Northern Kerala = 15%) clearly shows the disparity between regions. This imbalance between the marketing tactics and the disbursal of funds also reflects on the geographical distribution of perceived image

(Refer to **Error! Reference source not found.**). In the distribution of p erceived image content, Ernakulam district ranks first with 168 images of various attractions and facilities. Ernakulam is located in the central part of the state and serves as a gateway to the most popular tourist destinations, including Munnar in Idukki, Alleppey, Kumarakam, and Thekkady. The district has one international airport and one cruise terminal to accommodate tourists. It is quite surprising that none of the northern districts are included in the top five. Although Northern Kerala is blessed with beautiful natural resources, heritage monuments, and popular pilgrimage centers, this region lacks proper accessibility and infrastructure development compared to other parts of the state.

One unanticipated finding is that the district of Pathanamthitta, located southern part of Kerala, was detected at the last position on both projected and perceived geographical image distribution. Despite the fact that Pathanamthitta is home to numerous tourist destinations and pilgrimage centers like Sabarimala, Aranmula, and Kozhancherry, this district is least represented in both projected and perceived images. Sabarimala pilgrims are excluded from the data since they are not counted as tourists (Services, 2022). Pathanamthitta has the best scope for developing and marketing Eco-tourism initiatives and responsible tourism projects. Proximity to the major cities in Kerala makes this region one of the perfect getaways in the state.

Conclusion

This empirical study on Kerala Tourism identified the destination attributes coherences and disparities between projected and perceived destination images by both tourists and destination marketing organizations. Out of eighteen attributes identified through content analysis, six destination attributes showed incongruence between both destination images. Hence the destination marketing organization needs to work on these areas and eliminate the gap between projected and perceived destination images. Attending to tourists' requirements and increasing tourist flow to the destination are crucial responsibilities of the destination digital marketing wing.

This study analyzed the geographical distribution of UGC and DMO images in social media. A substantial disparity between northern

and southern Kerala in terms of social media posts is visible. This finding was backed up by the conclusion in the report of (Services, 2022), mentioning only 15% of the total fund was allocated to northern Kerala. A comprehensive map of the geographical distribution of social media posts revealed the deplorable state of the district of Pathanamthitta. An action plan to rejuvenate tourism in Pathanamthitta is indispensable. Further, DMO content should include more on Rural Tourism and Responsible Tourism, which Kerala excelled with.

The research has both theoretical and practical implications. The outcome of the study will provide a deeper understanding of how tourists perceive tourist destinations. Tourism service providers can therefore develop their digital marketing strategies. In addition, this study paved the way for a balanced, harmonious development of Kerala's tourist destinations, which will create an equilibrium of tourist flow.

This study has some limitations that has to be acknowledged. First, only the image contents of the UGC and DMO social media posts were considered for this study. Videos and textual data from the social media posts were excluded in order to focus only on image data. Future research can widen the spectrum with video and textual content and provide a comprehensive view of the study topic. Secondly, this study contemplated only two major social media service providers (Facebook and Instagram). Other image-sharing social media platforms like Flicker and Pinterest were excluded due to a plethora of data.

This study created a new arena for future research opportunities. For instance, future research may replicate the same method in any country, state, or region. The further prospective study can include video content by both DMO and UGC and analyze the results with appropriate tools. Analyzing video content and determining destination attributes is crucial for DMOs to formulate effective digital marketing strategies (Drule et al., 2020).

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