

1 **Perceived Value of Images Carrying Tourism Location Information on Social Media and**
2 **Customer Brand engagement**

3

4 **Abstract:**

5 In this study, we aim to study the factors that affect the perceived value of images carrying the
6 details of tourist locations posted on social networking sites (SNSs) and its effect on customer
7 **brand-engagement** in tourist locations. To empirically test the study model, we collected the data
8 from 155 respondents and 130 were valid for further analysis. The PLS-SEM approach was used
9 to assess the measurement and structural model. The study results evidenced that the measurement
10 model for study constructs were reliable and sound. Whereas, the results based on the structural
11 model reported that the images posted on SNSs provide entertainment, credibility, and information
12 regarding the tourist locations, which significantly determine the perceived value of images
13 advertised on SNSs. We also found that the perceived value of images successfully predicts the
14 customer brand-engagement in images carrying the details of tourist locations. In contrast, irritation
15 from images fails to impact the overall perceived value of images advertised on SNSs. This study
16 is the first to utilize the Ducoffe model to assess the effectiveness of images posted on SNSs to
17 predict customer brand-engagement in images carrying the information of tourist locations.

18 **Keywords:** Images, Tourist locations, SNSs, Ducoffe model, customer brand-engagement, and
19 PLS-SEM approach.

20

1 **1. Introduction**

2 The number of social media users have been increased enormously due to the rapid proliferation of
3 the internet and advancement in the mobile technologies (Tan et al., 2018).The earlier studies found
4 that social media play keen role in people daily life and become most essential computer mediated
5 communication platform (Lee & Hong, 2016; Lin & Lu, 2011). Owing to this, social media
6 marketing tools are commonly used by many tourism related marketing related campaigns to
7 enhance the engagement of the visitors and consequently stimulate their intention to visit
8 destination.

9 Customer brand-engagement has gained an exponential growth in entertainment industry (Abbasi,
10 Asif, et al., 2020; Abbasi, Nisar, et al., 2020) and more importantly in the tourism and hospitality
11 studies (Rather et al., 2019; Willems et al., 2019). Few authors have specifically focused on the
12 antecedents and consequences of tourist-based customer engagement (Rather et al., 2019).
13 Recently, Rather (2020) has conducted another study concentrating the role of customer
14 engagement as antecedent of customer experience to predict behavioral intention. Several other
15 studies have highlighted the importance of customer engagement in creating the customer value
16 co-creation and satisfaction (Lei et al., 2020; Yen et al., 2020). Despite numerous studies on tourism
17 related issues, prior studies are still limited to address how customer engagement in images
18 (carrying the information about tourist locations) can be triggered through perceived advertising
19 value of images posted on SNSs.

20 In tourism research, prior studies mainly focused on the on the effectiveness of the destination
21 advertising campaign which stimulate people intention to visit the place (Hem et al., 2003;
22 Hennessey et al., 2010). However, little attention has given to what are the feature in the
23 advertisement that can enhance the value of the advertisement, customer brand-engagement and
24 visitor's intention to visit that advertised destination. Current study is to explore the antecedents of
25 the advertisement images of destination post on different social media platform that can enhance
26 the advertisement value. Based on this, we develop a conceptual model proposed by Ducoffe
27 (1995) web advertising model consist of entertainment, informativeness, irritation, and credibility
28 to access the effectiveness of the tourism destination image ad on visitor brand-engagement
29 behavior. According to Ducoffe (1996) advertisement value is defined as subjective evaluation of
30 the advertisement message by the customer whether the ad provide sufficient information about the
31 product or services based on their need and requirements. Therefore, the contribution of the paper
32 are threefold: (1) to explore the effect of informativeness, entertainment, irritation and credibility
33 on customer perceived advertisement value; (2) to examine the consequences of this advertisement
34 value on customer brand-engagement value toward the tourism destination and (3) is this brand-
35 engagement behavior influence people intention to visit that destination. The finding of these
36 studies will be guideline for the destination marketers and tourists operators to develop effective
37 marketing campaign to encourage people to visit specific tourist place.

38

2. Theoretical Background

2.1 Ducoffe's Advertising Value Model

Advertising value is defined as a user's "subjective evaluation of the relative worth or utility of an advertisement" (Ducoffe, 1995). Thus, advertising value reflects an essential measure of advertising performance (Logan et al., 2012). After continuous research, advertisement informativeness, entertainment, and irritation are recognized as critical drivers of consumers' advertising-related evaluations (Ducoffe, 1995, 1996; Edwards et al., 2002). Brackett and Carr Brackett and Carr (2001) extended the original model of Ducoffe by added the credibility factor. Xu (2006) studied mobile advertising and incorporated the personalization factor in shaping mobile ads' perceived advertising value. Furthermore, the Ducoffe advertising model also utilized to examine mobile ads' value (Lee et al., 2017; Martins et al., 2019) and social media ads, specifically Twitter (Murillo et al., 2016), Facebook (Hamouda, 2018), YouTube (Yang et al., 2017) and Pop-Up Ads in online games (Abbasi, Hussain, et al., 2020). Therefore, our study further lengthens Ducoffe's model by including consumer brand-engagement in tourism images places on SNSs.

2.2 Consumer engagement

In general consumer brand-engagement can be define as the consumer's participation with the organization offerings and activities (Vivek, 2009). More precisely, consumer brand-engagement as a psychological state, which arises by virtue of collaborative client experiences with a central agent/object within particular service relations (Rather & Hollebeck, 2021). Moreover, Hollebeck et al. (2019) define consumer engagement as a customer's motivationally driven, volitional share of focal operant properties, such as, cognitive, behavioral, emotional, and social information/skills and operand resources in product interactions.

2.3 Hypotheses and Conceptual Framework

2.3.1 Informativeness

Informativeness is the advertising ability that offers the necessary information to the target individuals (Ducoffe, 1996; Huo et al., 2020; Saleh et al., 2021). It is distinctive to inform users of altered product information (Ducoffe, 1996; Hamouda, 2018). The internet is a vital information source for travelers. Precisely SNSs have a significant role for increasing information records for tourists (Kim et al., 2014). Information comes on SNSs in the form of images, promoted video clips and interactive ads (Wang & Li, 2017). People put their images on social media to understand how people think about their appearance (Fardouly & Vartanian, 2016). The images in mixed reviews deliver product-related nods as extra information. In contrast, video descriptions can provide inadequate information. Thus images decreasing consumer doubt since the information delivered by images is frequently more expressive and reliable. Images add diagnostic value to textual reviews (Wu et al., 2020). Thus social networking sites informativeness has a significantly positive effect on Facebook advertising value (Aydin, 2018). Informativeness is strongly uplift to perceived ad value (Martins et al., 2019). It has been seen that no such research has done so for, by concerning

1 the image of tourism locations posted on SNSs top trended groups and pages and its impact on the
2 perceived value. So we believe that images informativeness creates a positive relationship with the
3 perceived value of tourism images posted on SNSs. Considering the given information, the
4 following hypothesis is developed.

5 **H1:** Informativeness has a positive influence on the perceived value of tourism image posted on
6 SNSs

7 **2.3.2 Entertainment**

8 Entertainment is defined as the likeability and pleasantness obtain from advertising (Ducoffe,
9 1996). In general, entertainment states as the act of amusing or pleasing people (Hwang & Lee,
10 2019). Entertainment is seen as an inert attitude as individuals enjoy viewing without their direct
11 involvement in the acts/events (Oh et al., 2007). E.g., tourists can adore by watching the videos or
12 images without any active involvement (Hwang & Lee, 2019). Ducoffe (1995) established that
13 advertising's entertainment aspect has positively correlated to ad perceived value. Almost one-half
14 of pleasure tourists post their travel images on social networking sites (Lo et al., 2011). This is
15 because images related to the travel experience continue to rise the fame on the social networking
16 sides (i.e., Twitter, Instagram and Facebook) (Boley et al., 2013). Hamouda (2018) confirmed that
17 informativeness has a significant positive link with consumers' perceptions of tourism on social
18 media. Based on prior studies, the current study proposes that entertainment positively impacts the
19 perceived value of tourism images posted on SNSs.

20 **H2:** Entertainment has a positive influence on the perceived value of tourism image posted on
21 SNSs

22 **2.3.3 Credibility**

23 Credibility states the user perception of an ad in the context of its trustworthiness and reliability
24 (Wu et al., 2016). Dix et al. (2012) reinforced the notion by discussing credibility as a consumer's
25 prospect about the visual ads content's factualness and justice. Graphic Advertisements on SNSs
26 are credible and trustworthy sources for exhibiting individual real-time experiences shared publicly
27 (Chu & Kim, 2011). No one doubts that tour snaps play a vital part in tourism. Pictures and travel
28 are connected inherently because images shape the travel experience (Lo et al., 2011) and offer
29 explorers an opportunity to share travel experiences with others. Tourists have also shared images
30 of the external travel parties that can improve the link between the traveler and the audience. So
31 images play a profound symbolic part in constructing travel memories and considering the
32 importance of images in travel decisions and their effectiveness in changing the cognitive process
33 (Kim et al., 2014). In Facebook, tourism ads credibility positively impacts the consumer's attitude
34 towards the social media advertising value (Hamouda, 2018). In SNSs, when users believe that
35 online ads (e.g., images and video) are trustworthy, attractive, and credible, they tend to show a
36 more positive online advertising approach (Lou & Yuan, 2019). Dobrinic et al. (2020) clarified
37 online ads credibility positively influences internet ads' perceived value. In line with previous
38 studies, we predict the relation between SNSs Images credibility and perceived values obtained
39 from tourism image on SNSs.

40 **H3:** Credibility has a positive influence on the perceived value of tourism image posted on SNSs

1 **2.3.4 Irritation**

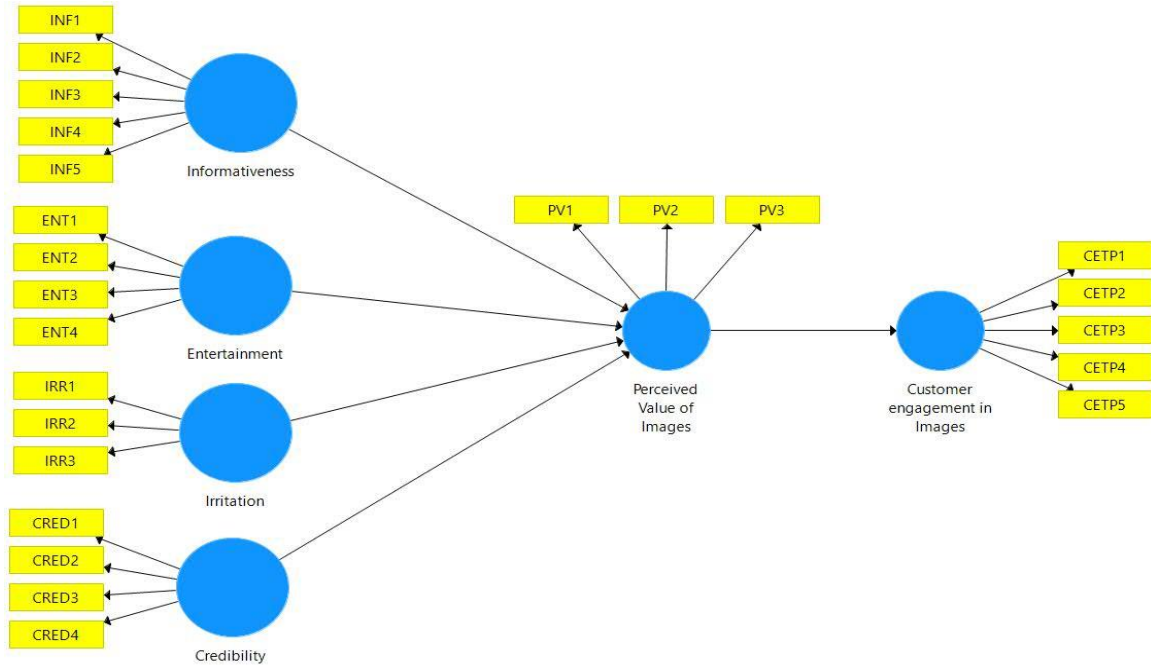
2 The advertising information users obtained may be professed as distracting, disinteresting,
3 confusing, overly manipulative, or even offensive (Aydin, 2018; Ducoffe, 1996). Irritation is one
4 of the negative beliefs associated with ad value (Saleh et al., 2021). Studies on social media
5 advertising reveal that negative communication factors on SNSs will lead to social media ads (e.g.,
6 video or images) avoidance. (Ferreira et al., 2017). The irritation element cause by video or image
7 ads decreases in ads effectiveness and users' perceived value (Sinkovics et al., 2012). Frequent
8 posts on social media can also generate irritation among viewers because unwanted ads again and
9 again create avoidance of SNSs (Aydin et al., 2021), further consumers may feel insulted or
10 annoyed while viewing (Lee et al., 2017). In online reading manuals, e.g., repeated and long emails
11 and irrelevant comments create irritation for the social media users (Khan et al., 2020). Thus, social
12 media irritation negatively impacts Facebook's advertising value (Aydin, 2018). Furthermore, In
13 SNSs advertising, irritation negatively associates with the advertisement's perceived value (Shareef
14 et al., 2019). In the evidence of the prior studies, we assume that irritation in the social network
15 side images has a negative link with perceived value.

16 **H4:** Irritation has a negative influence on the perceived value of tourism image posted on SNSs.

17 **2.3.5 Perceived Value and Consumer Brand-engagement in Tourism Place**

18 Advertising perceived value is defined as the relative utility or benefit obtained from advertising
19 by the consumers (Ducoffe, 1995). Consumers assess the acknowledged messages as worthy if they
20 parallel their requirements or contain valuable information to use (Martins et al., 2019). Thus, in
21 general SNSs images and video ads and Facebook ads related to tourism; advertising value
22 positively affects the attitude toward social media advertising (Aydin, 2018). Previous research
23 studied the correlation between ads value, attitude and intention (Brahim, 2016; Lee et al., 2017;
24 Shareef et al., 2019). However, no such study investigates the link between tourism images'
25 perceived value on SNSs with consumer brand-engagement in tourism places. Thus:

26 **H5:** The perceived value of tourism image posted on SNSs positively influences consumer brand-
27 engagement in tourism places.



1

2 **Figure 1:** Conceptual Model

3

4 **3. Methodology**

5

6 **3.1 Cross-Sectional Research Approach**

7

8 In the present study, we used the cross-sectional research approach. As Saunders et al. (2019)
 9 stated, it is a viable approach in quantitative research and is also useful for acquiring speedy
 10 responses than the other longitudinal approach.

11

12 **3.2 Data Sample and Data Collection**

13 The study deploys a quantitative study method, and self-administered questionnaires were the
 14 primary data gathering source as recommended (Thomas et al., 2015). The scale indexes adapted
 15 from previous studies include: entertainment, informativeness, irritation and perceived advertising
 16 value (Ducoffe, 1995, 1996; Martins et al., 2019), credibility (Kim et al., 2014; Martins et al.,
 17 2019), consumer engagement (Fehrer et al., 2018; Ting et al., 2020) and were modified in the
 18 context of the present study. Sample items are “Images (*carrying information about tourism*
 19 *location*) posted on social networking sites (e.g., Facebook, Instagram, and Twitter) provide timely
 20 information; Images (*carrying information about tourism location*) posted on social networking
 21 sites (e.g., Facebook, Instagram, and Twitter) supply relevant information. A five-point Likert
 22 scale [1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree] was used to measure
 23 the items. The purposive sampling technique was utilized in this study as it is an effective technique
 24 for gathering data from a restricted number of individuals, as well as it consumes minimum time.

25 As Faul et al. (2007) advised, G*POWER software is required for sample identification to any
 26 qualitative study model. (Abraham et al., 2019) suggested that 150 sample size is an adequate

1 parameter for measuring less than seven structural equation modeling constructs. Hence we applied
 2 G*Power 3.1.9.2 software as it mentions 129 sample size requisite in the present study. We
 3 collected the data from 155 respondents and 130 were usable after deleting biased and incomplete
 4 responses. Table 1 displays participants' profiles e.g. gender, age, social media networks, etc.

5 **Table 1:** Overview of Respondents' Demographics

Respondents' Demographic	Frequency	Percentage
Total	130	100%
Gender		
Female	30	23.1
Male	100	76.9
Age		
18-25	78	60.0
26-32	38	29.2
33-39	11	8.5
40-46	2	1.5
47-53	1	.8
53 and Above	0	0
Education		
Matric	0.0	0.0
Intermediate	6	4.6
Bachelor	67	51.5
Master	42	32.3
M-Phil and above	15	11.5
Used SNSs		
Facebook	22	16.9
Instagram	13	10.0
Twitter	0.0	0.0
All the above SNSs	95	73.1

6

7 **4. Results**

8 By SmartPLS software, the two-step investigation technique was utilized to implement the partial
 9 least square structural equation modeling (PLS-SEM). PLS-SEM is an appropriate approach to deal
 10 with, e.g., non-normal data, small data size, complex model, theory extension, and for both
 11 reflective and formative constructs (Hair et al., 2016; Hair et al., 2019). Thus, we applied the PLS-
 12 SEM methodology because our research has a reflective model and a small sample size as
 13 acclaimed PLS-SEM is a suitable tool.

14 **4.1 Measurement model assessment**

15 In SmartPLS, the reflective construct is dignified by reliability and validity, which asses by outer-
 16 loadings, composite reliability (CR) values, Cronbach's alpha; the threshold measures for all values
 17 might be more significant to 0.7, Average Variance Extracted (AVE) bigger than 0.5 and

1 Heterotrait and Monotrait Ratio (HTMT) minus than 0.85 (Hair et al., 2020; Hair et al., 2019; Hair
2 et al., 2014). As the outcomes display, all the reflective constructs items loading exceeded the
3 threshold standard of 0.7 except consumer brand-engagement one item (CETP1), informativeness
4 three items (INF4, INF2, INF5) and entertainment one item (ENT1). As recommended, if the item
5 loaded between 0.5 and 0.7 and could not affect the significance of Cronbach's alpha, CR and AVE,
6 at that time, it not need to delete and it can be taken for further analysis (Ali et al., 2018; Hair et
7 al., 2016) Our study achieved results that exceed the given threshold criteria for Cronbach's alpha
8 CR and AVE. Hence, we retain the less loaded items and determine no reliability and conversion
9 validity issue in the current study. Tables 2 illustrates similar outcomes. Moreover, Table 3 reveals
10 that the HTMT values do not beat the threshold standard of 0.85 (Hair et al., 2019; Hair et al.,
11 2012). So no discriminant validity issue exists in our study.

12

13

14

1 **Table 2:** Item loadings, constructs reliability and convergent validity

Constructs	Items	Items loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Informativeness	INF1	0.759	0.755	0.835	0.504
	INF2	0.690			
	INF3	0.760			
	INF4	0.672			
	INF5	0.663			
Entertainment	ENT1	0.656	0.800	0.867	0.621
	ENT2	0.822			
	ENT3	0.799			
	ENT4	0.860			
Irritation	IRR1	0.844	0.898	0.893	0.738
	IRR2	0.764			
	IRR3	0.957			
Credibility	CRED1	0.818	0.859	0.904	0.702
	CRED2	0.836			
	CRED3	0.864			
	CRED4	0.833			
Perceived Value	PV1	0.883	0.837	0.902	0.754
	PV2	0.871			
	PV3	0.851			
Customer Brand-engagement	CETP1	0.583	0.860	0.903	0.655
	CETP2	0.873			
	CETP3	0.903			
	CETP4	0.761			
	CETP5	0.882			

2

3

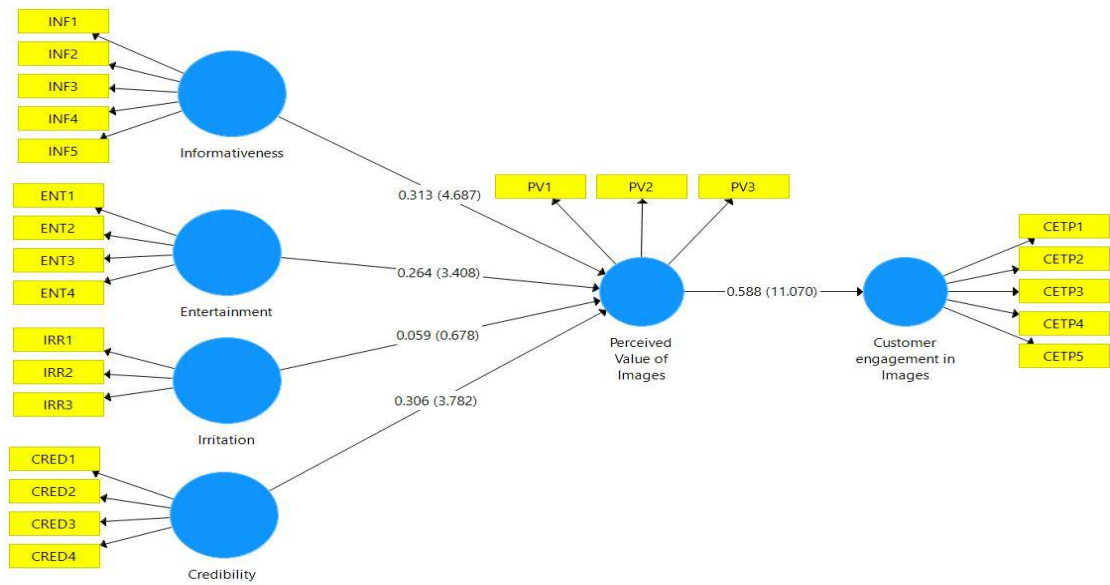
1 **Table 3:** Discriminant Validity

	Credibility	Customer brand- engagement in Images	Entertainment	Informativeness	Irrita tion	Perceived Value of Images
Credibility						
Customer Brand- engagement in Images	0.287					
Entertainment	0.414	0.332				
Informativeness	0.444	0.593	0.639			
Irritation	0.088	0.062	0.205	0.215		
Perceived Value of Images	0.597	0.69	0.601	0.676	0.046	

2

1 **4.2 Structural model assessment**

2 The second step is to analyze the structural model. It is carried to examine the link between the
3 latent variables. For the structural model estimation, (R^2) the coefficient value of the determination
4 and the Stone–Geisser's (Q^2) blindfolding-based cross-validated redundancy were used. The
5 standard threshold is both values greater than zero (Hair et al., 2020; Hair et al., 2019). Hence, the
6 R^2 and the Stone–Geisser's (Q^2) values of endogenous variables could exceed the threshold criteria.
7 As shows in table 4.



8

9 **Figure 2:** Conceptual Model with Results

10

1 **Table 3:** Assessment of Structural Model

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	R ²	Q ²	Decision
Informativeness -> Perceived Value of Images	0.313	0.310	0.067	4.687	0.000			Supported
Entertainment -> Perceived Value of Images	0.264	0.276	0.078	3.408	0.000			Supported
Irritation -> Perceived Value of Images	0.059	0.079	0.087	0.678	0.249			Rejected
Credibility -> Perceived Value of Images	0.306	0.297	0.081	3.783	0.000	0.447	0.330	Supported
Perceived Value of Images -> Customer brand-engagement in Images	0.588	0.594	0.053	11.070	0.000	0.341	0.208	Supported

2

3 The bootstrap resampling technique with 5000 samples was suggested to test the hypotheses
 4 correlation (Hair et al., 2017; Hair et al., 2019). Following the reference, bootstrapping was run via
 5 SmartPLS software with 130 sample size. Table 4 tells the path coefficient, standard deviation, p-
 6 value, and T statistics. The findings established that informativeness ($\beta = 0.313, p < 0.000$),
 7 entertainment ($\beta = 0.264, p < 0.000$) and credibility ($\beta = 0.306, p < 0.000$) have a significant direct
 8 relationship with perceived value of images. Contemporarily, and irritation ($\beta = 0.059, p > 0.249$)
 9 has shown an insignificant negative relationship with the perceived value of images. Finally, the
 10 perceived value of images ($\beta = 0.427, p < 0.000$) has shown a significant positive relationship with
 11 customer brand-engagement in images. Hence, hypotheses H1, H2, H4 and H5 are accepted. In
 12 contrast, H3 is rejected.

13 **5. Discussion**

14
 15 The aim of the current study was twofold. The first objective was to examine Ducoffe Model
 16 variables entertainment, Informativness, irritation, and credibility directly related to the perceived
 17 value of tourism imaged posted on SNSs. A second objective was to examine the perceived value
 18 of tourism imaged posted on SNSs with customer brand-engagement in tourism places.
 19 Comparative to Ducoffe Model, our experiential results confirmed the entertainment,
 20 Informativeness and credibility illustration a robust positive association with the perceived value
 21 of tourism imaged posted on SNSs. Whereas, irritation show an insignificant negative relationship
 22 the perceived value of tourism imaged posted on SNSs. Furthermore, the perceived value of tourism
 23 imaged posted on SNSs also shows a strong positive association with customer brand-engagement
 24 in tourism places.

25 **5.1 Theoretical implications**

1 Though preceding studies applied the Ducoffe model to scrutinize different advertising platform
2 influence on users, e.g., smartphone advertising, TV ads, networking ads, digital media advertising,
3 and pop-up ads in online games (Abbasi, Hussain, et al., 2020; Abbasi, Rehman, et al., 2021;
4 Dobrinic et al., 2020; Fanggidae, 2019; Martins et al., 2019; Pintado et al., 2017; Shareef et al.,
5 2019), however, it residues unexplored to quantify the Ducoffe model precisely in tourism images
6 posted on the social network. Besides the information, entertainment, and irritation, past studies
7 also recognized few other variables, e.g., credibility, that affect the ads' value and change users'
8 attitude and intention towards ads (Martins et al., 2019; Zainal et al., 2017).

9 Thus our research results have some particular theoretical implications that would assistance the
10 upcoming academics in the same domain. Firstly, the images of tourism spots on the SNSs elements
11 credibility, informativeness, and entertainment greatly influenced the perceived value tourism
12 imaged posted on social network sites (SNSs). Prior studies used the Ducoffe model for online ads
13 impact measurement, and they mostly focused on video ads or mixed-method and ignored the
14 images element on social media. Thus, it is a novel study that considered the tourism imaged posted
15 on social network sites (SNSs). Our findings also confirmed that perceived value tourism imaged
16 posted on social network sites (SNSs) significantly relates to consumer brand-engagement in
17 tourism places. So this finding would help the researcher in the images based advertising on SNSs.

18 ***5.2. Practical Implications***

19 Besides all the theoretical Implications, some practical contributions can be achieved which support
20 the practitioners and policymakers. First, while engaging the individuals with tourism imaged
21 posted on social network sites (SNSs), there must have appreciated content that not only gives
22 tourism destination-related information but also entertains the online viewers, and the images have
23 the credibility to appeal to the viewers toward the location. Thus video or images taken by a traveler
24 of a particular place are useful, and it provides information and portraits the location for the
25 potential visitors who are planning to visit that place in the future (Chu et al., 2019). While viewing
26 the images, potential tourists got benefits in terms of pleasure and knowledge; they indeed show a
27 positive response. So tourism groups and pages should consider emotional elements in their images
28 (e.g., uniqueness, surprise and immersion) that provide unique places online experience and create
29 enjoyment. That not only attracted other users towards the particular tourism group or pages on
30 SNSs but also resulted in the individual physical visit to the destination. The practitioners should
31 keep in focus images-based tourism promotion via SNSs because our finding confirmed that the
32 images posted on SNSs have the ability to entertain the viewers and provide credible information
33 to the online tourists. While putting image posts on social media groups or pages, the representative
34 should keep in mind its informative value, e.g., what information this picture giving to the viewers,
35 entertainment value; do the posted picture has the entertainment elements in terms of uniqueness
36 and emotional touch. Finally, the credibility value; do the images posted on the social networking
37 sides have the potential that people trust it.

38 Moreover, people recognize irritation as boring, intrusive, and annoying with videos and images
39 advertisements posted on SNSs. Our finding could not confirm the negative impact of irritation on
40 tourism perceived value; maybe the images posted on SNSs have not created irritation for the online
41 viewers. Similar results were also seen in past studies that in internet advertising the irritation was
42 not impact on perceived advertising value (Aydin, 2018; Dobrinic et al., 2020). Thus it can be

1 claimed that the images related tourism on the social media sides could not irritate the audience
2 because most of the tourism images on the SNSs are related to the nature, lush green land,
3 mountains, snowfall, and other cultural related pictures which mostly cause positive feelings. On
4 the other hand, the general video ads (TV and SNSs) contain annoying content that creates irritation
5 to viewers, which has also seen in the past studies (Aydin, 2018; Ferreira et al., 2017; Shareef et
6 al., 2019; Sinkovics et al., 2012). The social media admin and DMOs also consider this element
7 while creating social media ads rested to tourism destination.

8 If individuals benefit from the images posted on SNSs in terms of enjoyment and knowledge, they
9 undoubtedly positively influence consumer brand-engagement in tourism places. Our finding
10 confirmed that the perceived value of tourism image posted on SNSs positively influences
11 consumer brand-engagement in tourism places. The prior study builds the relationship between
12 perceived ads value with attitude and intention, but this is the first to confirm the relationship
13 between perceived value images posted on SNSs and consumer brand-engagement in tourism
14 places. The destination and marketing manager should consider the perceived value of image-based
15 ads on SNSs to engage the individuals in the tourism pages or groups.

16 **6. Limitation and Future Research**

17 **At present, we did a pilot test. So, another study is underway to extend the study model further and**
18 **collect more data to validate the extended model. In this study, we only considered image-based**
19 **posts in SNSs future studies might also consider** written status on SNSs base ads impact or mixed
20 advertising method. It can also suggest using the same model SNSs (Facebook, Instagram,
21 and Twitter) in video and image advertising because the Ducoffe advertising model
22 elements with brand-engagement are novel concepts that further need to be investigated.
23 The current study confirmed that image base ads on SNSs provided more entertainment to the
24 audience so future study needs to reconfirmed the rather entertainment in the advertising really
25 impact to shape the perceived value of advertising and ultimately online tourists brand-
26 engagement.

27 Furthermore, it considered classical variables of the Ducoffe model, credibility and customer
28 brand-engagement. In future studies, the Ducoffe model can be lengthy by including the variables,
29 e.g., personalization, incentives, and intention to visit the destination, as previously used in
30 smartphone ads (Kim & Han, 2014). Fourth, Ducoffe model can be extended by adding eWOM,
31 and customer referral as possible outcomes of customer brand-engagement in images carrying
32 tourism related images. Fifth, we can incorporate playful/joyful experiences (Abbasi et al., 2017;
33 Abbasi, Ting, Hlavacs, Costa, et al., 2019; Abbasi, Ting, Hlavacs, Fayyaz, et al., 2019) of tourist
34 locations as antecedents to derive customer brand-engagement and subjective wellbeing as an
35 outcome variable (Abbasi, Shamim, et al., 2021).

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