Destination bonding: Hybrid cognition using Instagram

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CHRONICLE	ABSTRACT
	Empirical research has identified the phenomenon of destination bonding as a result of summated physical and emotional values associated with the destination. Physical values, namely natural landscape & other physical settings and emotional values, namely the enculturation processes, have a significant role to play in portraying visitors' cognitive framework for destination preference. The physical values seemed to be the stimulator for bonding that embodies action or behavior tendencies in imagery. The emotional values were the conditions that lead to affective bonding and are reflected in attitudes for a place which were evident in text narratives. Social networking on virtual platforms offers the scope for hybrid cognitive expression using imagery and text to the visitors. Instagram has emerged as an application-window to capture these hybrid cognitions of visitors. This study focuses on assessing the relationship between hybrid cognition of visitors expressed via Instagram and their bond with the destination. Further to this, the study attempts to examine the impact of hybrid cognition of visitors on the behavioral pattern of prospective visitors to the destination. The study revealed that sharing of visual imageries and related text by the visitors is an expression of the physico-emotional bonding with the destination. It was further established that hybrid cognition strongly asserts destination bonding and has been also found to have moderating impact on the link between destination bonding and electronic-word-of-mouth.

1. Introduction

Destination bonding has been conceptualized as a multi-dimensional construct comprising of both physical and emotional attachment of the visitors to their destination (Ramkissoon et al., 2013; Halpenny, 2010). On account of interaction between varying layers of human cognition while manifesting destination bonding, a single comprehensive organizational model explaining the same as remained elusive. Scannell and Gifford (2010) explained destination bonding with a tripartite model with 'person', 'process' and 'place' as dimensions of triangulation. While 'person' referred to the

visitors, 'process' and 'place' referred to the complex interaction between human cognition and destination attributes resulting in behavioral outcomes. Positive outcomes depicting the love for destination have been coined as 'topophillia' (Tuan, 1974). Some environmental psychologists proposed the concept of 'schema' (Fullilove, 1996) to explain the process of alignment of beliefs and attitudes related to destination. There has been a paradigmatic shift in expression and sharing of destination experience with the advent of social networking platforms and mobile applications. Destination bonding, as an expression of hedonic and utilitarian feelings associated with the experience derived out of visiting a specific destination, is now being portrayed electronically on digital canvas. Mobile applications, namely Instagram, are gradually becoming ubiquitous and visitors are keen to share imagery and thereby generate social data. Data collected over 2012-2014 clearly indicates that usage of Instagram has been doubled (percentage-wise) confirming its proliferative impact on human cognition (Fig.1).
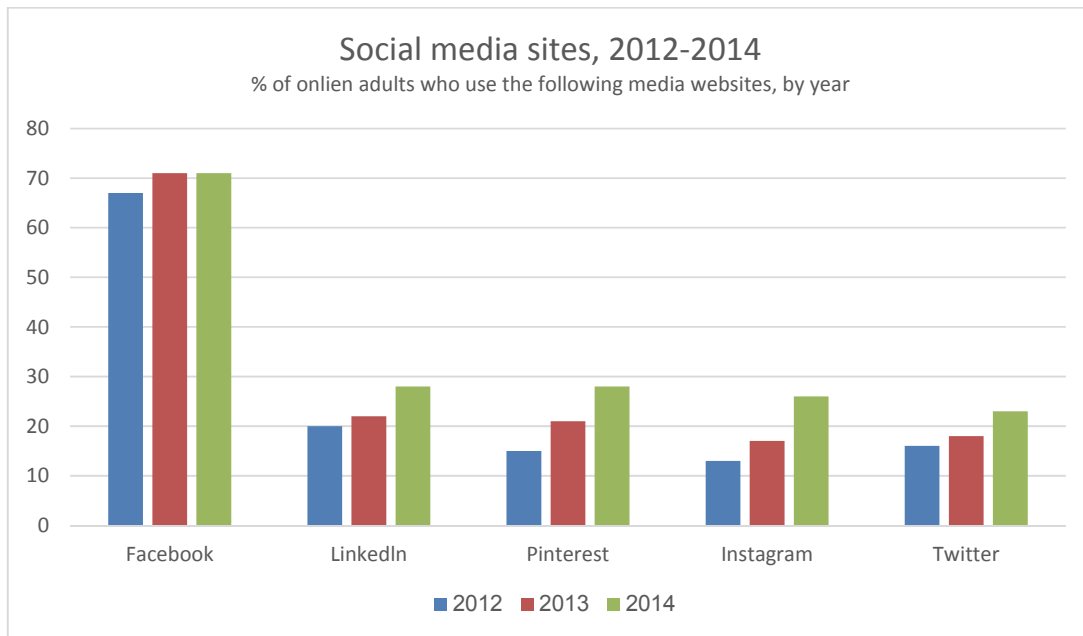

Fig. 1. Increase in use of Instagram
(Source: Pew Research Centre's Internet Project Surveys, 2012-2014, Retrieved from:
http://www.pewinternet.org/2015/01/09/social-media-update-2014)

Most recent academic pool has delved into the domain of 'digital humanities' using cultural analytic techniques and identified a spatio-temporal phenomenon termed as 'visual rhythm' while explaining the capture and display of Instagram images on social networking sites (Hochman and Schwartz, 2012). Destination marketing organizations (DMOs) are gradually realizing that the user-habit related to online community alignment must be understood to offer services to prospective visitors that will act as differentials while compared against the travel portals (Xiang and Pan, 2011). The user generated content as emerged as one of the most credible sources of travel information (Xiang and Gretzel, 2010).

2. Review of literature

Research on destination bonding has gained momentum with the convergence of assorted disciplines namely environmental psychology, tourism, energy studies, social dislocations etc. towards understanding the issues involved in visitor-destination relationship (Halpenny, 2010; Raymond et al., 2011). Emerging focus on the phenomenon of destination bonding and its potential impact on the behavioral pattern of the visitors has been presumed by the researchers to bear significant socio-economic connotations (Amsden et al., 2011; Su et al., 2014; Kyle et al., 2005; Marles & Watkin, 2003)

as a result of which a considerable stream of research flow has been witnessed in quantifying 'destination-bonding' with measured and validated scale (Kyle et al., 2005; Lee, 2011). Empirical studies have identified specific dimensions of destination bonding namely destination identity (Ramkissoon et al., 2013; Prayag & Ryan, 2012; Line & Costen, 2011; Hinds & Sparks, 2008), affective attachment (Kyle et al., 2004; Lee et al., 2007; Hinds & Sparks, 2008; Kals et al., 1999), destination dependence (Ramkissoon et al., 2013; Prayag & Ryan, 2012; Lee et al., 2007) and social bonding (Ramkissoon et al., 2012; Hammit et al., 2006). Destination-bonding has been researched as a precursor to destination loyalty (Su et al., 2010) and they seem to be correlated (Toyama & Yamada, 2012). According to Lewicka (2011), the intensity of destination bonding varies with the levels of cognitive loyalty starting with destination belongingness to the extreme exhibition of destination commitment. Albert and Merunka's (2013) opinion about consumer commitment and long-term association with a brand has been studied by Knez (2005) in the context of tourism and stated that destination commitment, the strongest expression of loyalty to destination, can eventually consolidate destination-visitor bonding. Researchers predicted that while functional or tangible benefits accrued from travel experience tend to mould the cognitive self of the visitors (Brocato, 2006), affective or emotional attachment goes beyond the level of cognition (Pearce & Lee, 2005; Riley, 1992) and spreads over a wide array of attitudes towards the destination.

Physical bonding with the destination develops on the premise of tangible and observable characters having functional values namely convenience and accessibility, perceived cost, perceived safety and security, climate and natural backdrop, dining facilities etc. (Bowen & Clarke, 2009). Emotional bonding develops as social interaction between the visitors and local community increases (Trauer & Ryan, 2004) resulting in favorable emotional experiences (Greider & Garkovich, 1994) on the basis of shared culture and tradition. While predicting destination bonding, researchers were also of the opinion that 'time' (duration of stay) can be an effective predictor (Hernandez et al., 2007) and longer duration of stay may strengthen the bonding of the visitors with the destination. Travel motives play significant antecedent role to destination bonding and often it follows the Maslowian hierarchy of needs (Trauer & Ryan, 2004). But critical cognitive hybridization of needs and desires seem to be the determining factor about the nature and intensity of visitor-destination bonding. Hybridization of travel motives is reflected as both hedonic and utilitarian drives control destination selection and frequency of visit (Yuksel et al., 2010; Bowen & Clarke, 2009). The pool of values involved in formation of this hybrid cognition can be assigned to two major categories on the basis of research outcomes: (a) physical values and (b) emotional values (presented in tabulated form in Table 1):

Table 1
Physical and emotional values

Values and travel motives	Research evidence
Physical values (hedonic drives)	
Landscape, natural beauty, climate, environmental specialty, biodiversity etc.	Ramkissoon et al., 2013; Line & Costen, 2011; Hwang et al., 2005; Raymond et al., 2011; Vaske & Kobrin, 2001
Logistics and infrastructural support available, socio-economic environment	Bowen & Clarke, 2009;
Emotional values (utilitarian drives)	
Prestige and personal desires associated with the visit	Del Bosque & Martin, 2008
Novelty of the destination	Kruger & Saayman, 2010
Ethnic and cultural linkages	Smith, 2003

The deep level of destination bonding based on emotional values can be attributed to human-love relationships (Hammock and Richardson, 2011). Love and passion were considered as critical relational constructs while explaining theory of bonding (Loureiro et al., 2012). 'Lovemark', considered as generation-next-theory in explaining deep bondage between human beings and

products/brands/services/entity, evokes a sense of 'loyalty beyond rationality' (Roberts, 2004; Pawle & Cooper, 2006) and is characterized by sensuality, intimacy and mystery (Pawle & Cooper, 2006). Linking objects with people and its subsequent visual representation has been a part of social construction (Sayers & Monin, 2007) which reinforces the exhibition of 'lovemark' to a destination by visual imagery.

The advent and proliferation of 'social networking' has brought a brand new canvas for the visitors where they can portray their lovemark for the destination by posting visual images captured in various format via a number of applications. According to Lin and Lu (2011) and Parra-Lopez et al. (2011), the display of images and texts on virtual platforms by the visitors, while sharing their travel experience and memories, satisfy their hedonic as well as utilitarian needs. Researchers, namely, Blackshaw and Nazzaro (2004), Mangould and Fauld (2009) coined the term 'consumer-generated media' while explaining the intricacies of social networks which offered the visitors to share the digital reproduction of their experience related to the destinations visited that can have amplifying effects in viral forms, thereby, advocating pro-destination attitudes for the prospective visitors (San Martin and Rodriguez, 2008). Changes in paradigm of physical and emotional values associated with sharing of experience of visiting destinations have witnessed visitors claiming more control over their media consumption which is reflected in on-demand access to information via shared imagery and texts (Rashtchy et al., 2007; Vollmer & Precourt, 2008). Instagram has been one of the emerging social network platforms and mobile applications which has, on an average, 75 million active users per day with billions of user-generated-content (UGC) in the form of images and videos (Hanan & Putit, 2014; theverge.com, 2013). Instagram provides the unique advantage of categorizing content on the basis of a digital hashtag and filter and can be shared across more versatile network platforms namely Facebook and Twitter (Tussyadiah & Fesenmaier, 2009; Boley et al., 2013, Criswell & Canty, 2014). Behavioural explanation of using social medias as windows of communication has been attributed to reinforcement of 'social presence' through 'self-presentation' and 'self-disclosure' (Kaplan & Haenlein, 2010). Content communities, namely You Tube, social networking sites namely Facebook, Linkedin and individual blogging has assumed major role towards enabling electronic-word-of-mouth (e-WOM) not only on the basis of textual content but also with explicit images and videos (Kaplan & Haenlein, 2010).

Assimilation of physical and emotional values towards generating an attachment or bonding with a destination has, of late, been the focal research area (Criswell & Canty, 2014; Albert & Merunka, 2013; Ramkissoon et al., 2013; Hammock & Richardson, 2011) stimulating the researcher to conceptualize 'hybrid cognition' as a determinant of destination bonding and its exhibition through visual imagery. This area of research is a novel one as hybrid cognition has never been test for moderation between destination bonding and e-WOM.

2.1 Objectives of the study

The objectives of the study are two-fold:

(a) to assess the relationship between hybrid cognition expressed by visitors through image capture and sharing by using Instagram application over versatile social network platform namely facebook and destination bonding.
(b) to examine the intervening effects, if any, of hybrid cognition on the relationship between destination bonding and behavioral intent of visitors namely electronic word-of-mouth (e-WOM).

2.2 Formulation of hypotheses

Drawing cues from the literature reviewed and synchronizing them with the focal objectives of the study, the researcher formulates the following hypotheses for empirical testing:

(a) H_1: There is a relationship between hybrid cognition and destination bonding.
(b) H_{01}: Hybrid cognition does not share any relationship with destination bonding.
(c) H_2: Hybrid cognition intervenes in the relationship between destination bonding and e-WOM
(d) H_{02}: Hybrid cognition does not intervene in the relationship between destination bonding and e-WOM

2.3 Conceptual model

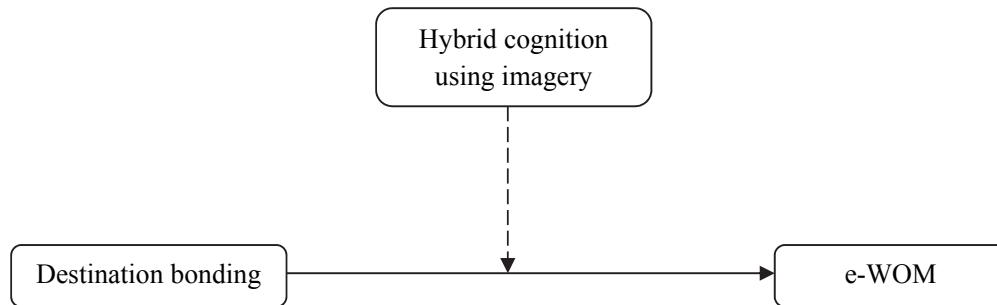The following conceptual/default model (Fig.1) was considered for empirical test:

Fig.1. Conceptual/ default model for the study

3. Methodology

The study was a combination of qualitative and quantitative approach. While qualitative research approach was deployed to understand the deep sense of destination bonding (based on a mix of physical and emotional values) expressed by sharing of imagery and text using Instagram application by the visitors across social network platform (Facebook); quantitative research consolidated the dimensions of destination bonding and hybrid-cognition (expressed via imagery and text on Instagram application) and their relevant impacts and relationship. Quantitative research was further used to understand the intervening effects of hybrid cognition on the relationship between destination bonding and behavioural pattern of visitors. Netnography technique as suggested by Kozinets (2002) was used to obtain data from the online community using social network platform (Facebook) to share Instagram imagery and texts. Prior permissions were obtained from the informants who shared imagery and text using Instagram depicting their experience of visiting Santiniketan, a culturally and ethnically enriched destination with sheer heritage, in the state of West Bengal, India. The same informants were interviewed to have an understanding about their bondage with the destination, their hybrid cognition level (physical and emotional values associated with display of imagery using Instagram) and their future behavioural intention (electronic word-of-mouth and repeat visitation). Inevitably, convenience sampling was used with relatively small sample size. The initial Instagram imagery about Santiniketan was obtained from 145 informants sharing the same over Facebook. The electronic interview had two parts. The first part was subjective in nature and was focused on understanding the cognitive involvement of the informant while sharing Instagram images with hashtags on Facebook. The informants were asked to share their broad experience and opinion about the destination and its attributes namely (a) destination distinctiveness (destination identity), (b) destination referent continuity (coherent experience based on past visits) and destination congruent continuity (congruence with present belief about destinations preferred to visit) and (c) destination-related self esteem (feel-good or feel-proud factor). The second part of the electronic-survey was accomplished using a structured questionnaire which was mailed to each and every informant whose Instagram imagery was used for the study. The questionnaire contained scaled (7 point Likert scale) items to have an understanding about the dimensionalities of destination bonding; hybrid cognition based on imagery and a specific behavioral pattern namely electronic-word-of-moth (e-WOM). 140 complete responses were obtained.

3.1 Factor constructs measurement

To measure the respondents' destination bonding, 24 items were adapted from Brown et al. (2015), Ramkissoon et al. (2013), Lee et al. (2012) and Kyle et al. (2004). Hybrid cognition using imagery has been introduced as a novel concept and did not have any specific legacy of research. e-WOM was measured using insights from the studies made by Bronner and de Hoog (2011), Volo (2010) and Dippelreiter et al., (2008). The researcher decided to finalize the pool of items measuring hybrid cognition of visitors only after the content analysis of subjective interviews and images captured over Instagram.

3.2 Testing for reliability and validity

An exploratory factor analysis with varimax rotation was deployed to assess the reliability (DeVellis, 2003) and construct validity (Netemeyer et al., 2003) with a convenience sample size of 140. To assess whether a particular data set is amenable to factor analysis, examination of the strength of the relationship among the items is required (Hair et al., 2006; Bohmstedt & Borgatta, 1981). The items having factor loadings lower than .6 or cross-loaded on more than one factor were discarded. The internal consistency and reliability were proved to be significant as Cronbach's alpha was found to be >.7 (Hair et al., 2006). While 15 items were significantly loaded for destination bonding, 5 items were found significant to measure e-WOM (Table-2).

Table 2
EFA results

Dimensions assigned	Scale items	Factor load	Mean	SD	α
Destination dependence	I could not imagine anything better than the physical backdrop and facilities provided by Santiniketan to fulfill my inherent needs	.787	5.09	1.27	0.935
	I consider the physical backdrop and facilities provided by Santiniketan to be the best	.766	5.81	1.44	
	I prefer Santiniketan as destination to others for recreation/ leisure	.774	5.42	1.37	
	I choose Santiniketan as destination even when the alternatives are recommended to me	.733	5.01	1.29	
	I enjoy visiting Santiniketan more than any other destination	.776	5.81	1.65	
Destination identity	I identify myself strongly with Santiniketan	.719	4.50	1.37	0.917
	I feel connected with the local culture, ethnicity and tradition of the destination	.708	4.33	1.29	
	Visiting Santiniketan speaks a lot about who I am	.728	4.89	1.66	
Affective attachment	I feel attached to Santiniketan	.707	5.57	1.00	0.899
	I feel a strong sense of belonging to Santiniketan	.729	4.89	1.12	
	My personal values are reflected in Santiniketan as destination	.751	5.47	1.62	
	Santiniketan, as a destination, means a lot to me	.763	5.82	1.76	
	I have lot of fond memories of Santiniketan	.949	5.27	1.90	
Destination social bonding	Many of my relatives/friends prefer visiting Santiniketan to other destinations	.867	5.14	1.41	0.906
	If I decide not to visit Santiniketan any more then I would lose contact with a number of local friends and acquaintance	.820	5.05	1.29	
	If I decide not to visit Santiniketan any more, my friends and acquaintance will be disappointed with me	.654	5.37	1.19	
e-WOM	I am excited to share images and texts about my experience of visiting Santiniketan with online community	.717	5.09	1.23	0.925
	I am satisfied to post my feelings online about Santiniketan as a place of must-visit	.699	4.98	1.09	
	I have interacted with my friends and relatives on social networking platforms and recommended to visit Santiniketan	.701	4.99	1.48	
	I shall continue to share online my positive feelings about Santiniketan as a destination to visit	.698	4.89	1.11	
	I have shared a lot of information electronically with the prospective visitors to Santiniketan	.711	5.12	1.62	

Extraction Method: Principal Component Analysis.
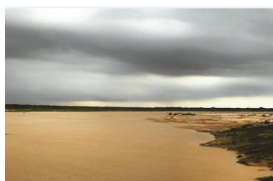Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations.
KMO: .872, Bartlett test of Sphericity: Chi-square-912.118, df= 171, Sig.: .000

EFA explained 69.26 % of overall variance. Bartlett's test of Sphericity (a statistical test for the presence of correlations among the variables) and the KMO (Kaisere Meyere Olkin) measure of sampling adequacy were measured to assess the factorability of the data. The KMO value at .872 exceeds the acceptable minimum value which is .6 (Hair et al., 2006). The Barlett's test of Sphericity was found to be significant (Chi-square-912.118, df= 131, .000 p < .00). The Cronbach's alpha score of reliability ranged from .899 to .935. To achieve a more meaningful and interpretable solution, some items which loaded on more than one factor were deleted.

4. Data analysis

Demographically significant differences were not observed between genders and ages of informants, rather, length of stay, whether visited for first time and information about present location were found relevant for qualitative analysis. The researcher also, more specifically, sought to develop an understanding about the informants' psycho-physical state as 'experiential informant' (present at the destination and sharing hybrid cognition through Instagram imagery) or as 'reflective informant' (currently at his/her hometown and reminiscing memories of destination and sharing hybrid cognition through Instagram imagery). The qualitative data analysis using Instagram photos and the first part of the subjective interview content was structured as per the guidelines laid down by Kozinets (2002). The imageries were categorized for analysis based on the 'centric' theme proposed by Tussyadiah and Fesenmaier (2009) namely: (a) site-centric, (b) self-centric, (c) activity-centric and (d) other centric. The content analysis using the subjective response was done by deploying the summative approach (Hsieh and Shannon, 2005). The initial set (Fig.1a to Fig.1h) of Instagram imageries is reflective of cognitive bonding between the visitors and the destination visited (Santiniketan) on the basis of physical surroundings/ environment and amenities. The depiction of destination using Instagram imagery also justifies the visitors' opinion about destination distinctiveness whereby they have portrayed Santiniketan as a serene and rustic place with rich cultural and ethnic legacy. The summative content analysis (SCA) of subjective interviews about destination distinctiveness allowed the researcher to identify the hedonic cognition based on site-centric image displays using Instagram application. The findings are in line with the observations made by Lewicka (2011) that physical dimensions act as faster source of destination bonding compared to social dimensions.

Img.1   Img.2   Img.3   Img.4

Img.5   Img.6   Img.7   Img.8

The images reflecting activities involving the visitors at the destination exhibits both their destination referent and destination congruent continuities as the activity-centric images were shared via Instagram application. The visitors' participation and being witness to destination specific activities and its subsequent image displays conform to their utilitarian state of cognition. The SCA and image analysis prompted the researcher to assign this utilitarian cognition of the visitors to 'lovemark to destination' as projected by Pawle and Cooper (2006) and Roberts (2004). According to Toyama and Yamada (2012) the 'mystery' component of 'lovemark to destination' centres on experiences and discoveries related to destination which are activity specific. A vast majority of the informant shared their experiences and feelings about the cultural and ethnic practices of Santiniketan which included the internationally famous festivals namely 'Poush Mela' and 'Basantotsav'. The selective images are also reflective of the rich tradition of performing art and crafts of Santiniketan. Fig. 1i to Fig.1p represents the visual imageries of destination specific activities and experiences shared by the visitors via Instagram application:
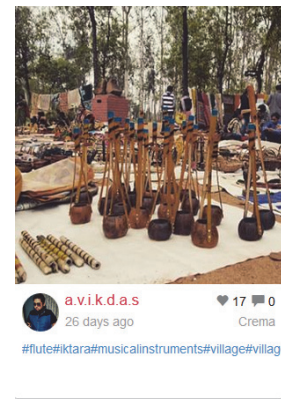
| Img. 9 | Img. 10 | Img. 11 | Img. 12 |

| Img. 13 | Img. 14 | Img. 15 | Img. 16 |
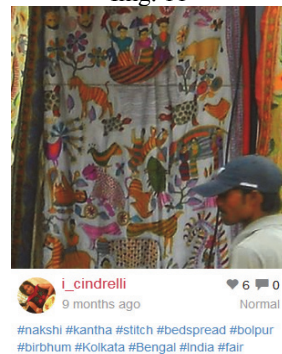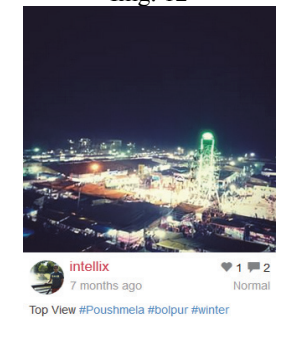
Self-centric activities portray the destination-related self-esteem of the visitors. The SCA and image analysis brings out the pride associated with the destination visited. In almost every image the visitors have masked their own portrait with the backdrop of the destination marking evocation of emotional values associated with the same. The 'intimacy' dimension of 'lovemark to destination' (Pawley & Cooper, 2006) has been reflected in the images. There are also few other activities which also represent a strong undercurrent of both physical and emotional values attached to the destination by the visitors, interpreted on the basis of textual explanation of images and content analysis, to be associated with prestige and status (Fig. 17 to Fig. 32).

Img. 17
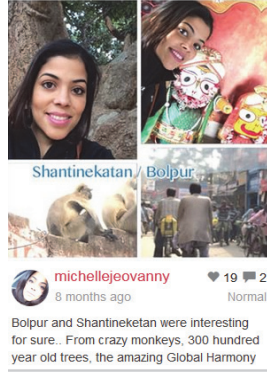
Img. 18

Img. 19

Img. 20

Img. 21

Img. 22

Img. 23

Img. 24

Img. 25

Img. 26

Img. 27

Img. 28

Img. 29

Img. 30
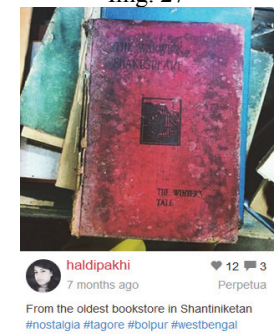
Img. 31

Img. 32

Analysis of subjective content have identified a stream of homogeneous expressions using common terminologies by the informants related to the destination (Santiniketan) which is a mix of their physical and emotional values derived from their visit, namely 'serene and rustic landscape', 'vibrant and rich culture', 'collection of handicraft items as souvenirs', 'interaction with local community', 'sense of pride and satisfaction associated with visiting Santiniketan', 'tranquility and solitude of the destination leading to mental calmness', 'green and pure environment', 'simplicity of life (some said 'escape from complex urban life')', 'attraction of traditional events and festivals' and 'accessibility, facilities and

amenities related to the destination'. These mental projections can also be identified with the images captured and shared across networking platform. An initial pool of 19 items was finalized to generate response considering the hybrid components (physical and emotional values expressed via Instagram imagery) following the content (interviews and images) analysis. Exploratory factor analysis was applied to gain insights about the dimensionality (Table-3). EFA explained 71.09 % of overall variance. Internal reliability was established as Cronbach's alpha (.937 and .949 for hedonic and utilitarian dimension respectively) was found significant. Bartlett's test of Sphericity and the KMO measure of sampling adequacy were also measured (KMO = .895, Chi-square = 564.761, df= 89, p < .00.) and was found to be significant (Hair et al., 2006).

Table 3
EFA results

Dimensions assigned	Scale items	Factor load	Mean	SD	α
Hedonic cognition (physical values, activity & site centric leading to destination distinctiveness)	I am fascinated with the natural landscape of Santiniketan	.685	4.78	1.76	
	I am fascinated with the heritage sites of Santiniketan	.702	5.01	1.34	
	I am thrilled to witness the sculptures, murals and other art-works properly preserved and displayed	.716	5.18	1.54	
	I am fascinated with the serene and green environment of Santiniketan	.698	4.88	1.33	
	I am satisfied with accommodation and dining facilities available at Santiniketan	.692	4.84	1.18	
	The visits to the handicraft-hubs were very exciting	.702	5.02	1.29	
	I am excited to be part of the craft-production process	.721	5.32	1.62	
	I took active part in the traditional festivals of Santiniketan	.689	4.87	1.37	
	I am excited to have my own collection of art-replicas and souvenirs	.696	4.88	1.29	.937
Utilitarian cognition (emotional values, self-centric leading to destination referent, congruence and social bonding)	I am a proud visitor of Santiniketan	.754	5.33	1.56	
	The ambience of Santiniketan has touched my heart	.751	5.65	1.54	
	The visit to Santiniketan was soul refreshing	.732	5.44	1.32	
	I am proud to be a part of our own cultural heritage at Santiniketan	.718	5.09	1.28	
	Visit to Santiniketan has enriched me as a human being	.745	5.60	1.18	
	I am thrilled to socially share my feelings about Santiniketan	.816	6.11	1.87	
	I am excited to share images of my visit to Santiniketan using Instagram	.834	6.01	1.91	
	Instagram allowed me to express my feelings about Santiniketan through images and narratives	.804	6.11	1.75	
	Social networking platform enabled me to reach to my friends, relatives and other acquaintances instantly with the Instagram images and narratives	.798	5.87	1.42	
	Instagram has enabled expression of real-time feelings about a destination	.785	5.75	.37	.949

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 5 iterations.
KMO: .895, Bartlett test of Sphericity: Chi-square-546.761, df= 9, Sig.: .000

To examine the first hypothesis (H_1) bivariate correlation was deployed. The results of the same have been summarized in Table 4.

Table 4
Results of bivariate correlation

		HEDCOG	UTLCOG	DDP	DID	AFA	DSB
HEDCOG	Pearson Corr.	1					
	Sig. (2-tailed)						
	N	140					
UTLCOG	Pearson Corr.	.221**	1				
	Sig. (2-tailed)	.000					
	N	140	140				
DDP	Pearson Corr.	.305**	.284**	1			
	Sig. (2-tailed)	.000	.000				
	N	140	140	140			
DID	Pearson Corr.	.151*	.339**	.117*	1		
	Sig. (2-tailed)	.002	.000	.004			
	N	140	140	140	140		
AFA	Pearson Corr.	.199**	.274**	.201**	.097	1	
	Sig. (2-tailed)	.000	.000	.000	.092		
	N	140	140	140	140	140	
DSB	Pearson Corr.	.201**	.425**	.044	.298**	.147*	1
	Sig. (2-tailed)	.000	.000	.532	.000	.003	
	N	140	140	140	140	140	140

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).
HEDCOG- hedonic cognition, UTLCOG- utilitarian cognition, DDP- destination dependence, DID- destination identity, AFA- affective attachment,

The results confirmed existence of moderate to strong dimensional correlation between destination bonding and hybrid cognition. While hedonic cognition shared strong correlation with destination dependence (r= .305**, p<.001), affective attachment (r= .199**, p<.005) and destination social bonding (r= .201**, p<.005), it represented moderate correlation with destination identity (r= .151**, p<.005). On the other hand utilitarian cognition exhibited strong correlationship with all dimensional constructs of destination bonding, namely destination dependence (r= .284**, p<.001), destination identity (r= .339**, p<.001), affective attachment (r= .274**, p<.001) and destination social bonding (r= .425**, p<.005). Analysis provided partial support to H_1. The researcher deployed two sets of hierarchical multiple regression analysis (HMRA) to understand the moderating effects of hybrid cognition (HYBCOG) on the relationship between destination bonding (DBond) and e-WOM. The results of the HMRA were tabulated in Tabe 5, Table 6 and Table 7.

Table 5
Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.469[a]	.219	.217	.35267	.219	173.372	1	138	.000
2	.440[b]	.193	.191	.33897	.026	20.652	1	136	.000

a. Predictors: (Constant), DBond
b. Predictors: (Constant), DBond, HYBCOG
c. Dependent Variable: e-WOM

Table 7
ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	47.060	1	47.060	173.372	.000[b]
1	Residual	128.112	138	.180		
	Total	175.171	136			
	Regression	51.060	2	25.530	102.448	.000[c]
2	Residual	124.111	135	.175		
	Total	175.171	133			

a. Dependent Variable: e-WOM
b. Predictors: (Constant), DBond
c. Predictors: (Constant), DBond, HYBCOG

Table 8
Coefficient[a]

	Model	Unstandardized Coefficients		Standardized Coeff.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.117	.125		23.175	.000
	DBond	.354	.024	.379	16.150	.000
	(Constant)	3.523	.129		23.888	.000
2	DBond	.417	.024	.487	16.608	.000
	HYBCOG	.060	.013	.149	6.233	.000

a. Dependent Variable: e-WOM

Model-1 is significant without interaction term. F (1, 138)= 173.372, p<.001
Model-2 is significant with interaction term. F (2, 136)= 102.448, p<.001
Model-2 accounted for significantly more variance than Model-1. Model-2 with the interaction effect of DBond and HYBCOG accounted for significantly more variance than DBond as a standalone variable. R^2 change = .026, p=.000, indicated that there is potentially significant and positive moderation of hybrid cognition on the relationship between destination bonding e-WOM. The interaction term between DBond and HYBCOG was added to the regression model, which accounted for a significant proportion of the variance in visitors' e-WOM, ΔR^2 = .026, $\Delta F(1, 138)$ = 20.652, p = .000, β = .149, t = 6.233, p < .01. Since we have received potentially significant and positive moderating effects, we decided to run regression on centered terms to examine the effect. To avoid potentially problematic high multicollinearity with the interaction term, the variables were centered and an

interaction term between DBond and HYBCOG was created (Aiken & West, 1991). To assess the effects we deploy the 'PROCESS by Andrew F. Hayes' in SPSS package. The results are as follows:

```
Run MATRIX procedure:
Model = 1
    Y = e-WOM
    X = DBond
    M = HYBCOG
Sample size
     140
**********************************************************************
Outcome: e-WOM
Model Summary
     R     R-sq    MSE     F     df1     df2      p
    .30     .09    .14   10.88   3.00  138.00    .00
Model
         coeff    se     t      p     LLCI   ULCI
constant  4.86    .02  298.48   .00   4.83   4.89
HYBCOG     .19    .05   4.20    .00    .10    .28
DBond     -.04    .04  -1.02    .31   -.12    .04
int 1      .43    .13   3.41    .00    .18    .68
Interactions:
 int 1   HYBCOG  X   DBond
**********************************************************************
Conditional effect of X on Y at values of the moderator(s):
  HYBCOG  Effect    se    t      p     LLCI   ULCI
   -.37    -.20    .07  -2.80    .01   -.34    .06
    .00    -.04    .04  -1.02    .31   -.12    .04
    .37     .12    .05   2.44    .01    .02    .22
Values for quantitative moderators are the mean and plus/minus one SD from mean.
Values for dichotomous moderators are the two values of the moderator.
**********************************************************************
Data for visualizing conditional effect of X on Y
    DBond   HYBCOG  E-WOM
   -.49    -.37    4.89
    .00    -.37    4.79
    .49    -.37    4.69
   -.49     .00    4.88
    .00     .00    4.86
    .49     .00    4.84
   -.49     .37    4.88
    .00     .37    4.93
    .49     .37    4.99
Level of confidence for all confidence intervals in output:95.00
NOTE: The following variables were mean centered prior to analysis:
 DBond, HYBCOG
NOTE: All standard errors for continuous outcome models are based on the HC3 estimator
------ END MATRIX ----
```

Examination of the interaction plot revealed an enhancing effect that elevated level of hybrid cognition will increase the impact of destination bonding on e-WOM. Structural equation modeling was applied to estimate the confirmatory factor analysis (CFA) models related to the proposed conceptual model. A number of goodness-of-fit statistics were obtained. The GFI (0.984) and AGFI (0.979) scores (Table 9) for all the constructs were found to be >.900 indicating a good fit has been achieved (Hair et al, 1998). The CFI (0.962) and RMSEA (0.057) confirmed adequate model fit as per Bentler, 1992. The Chi-square (χ^2=784.16, df=376, p=0.000) is significant at p<0.001.
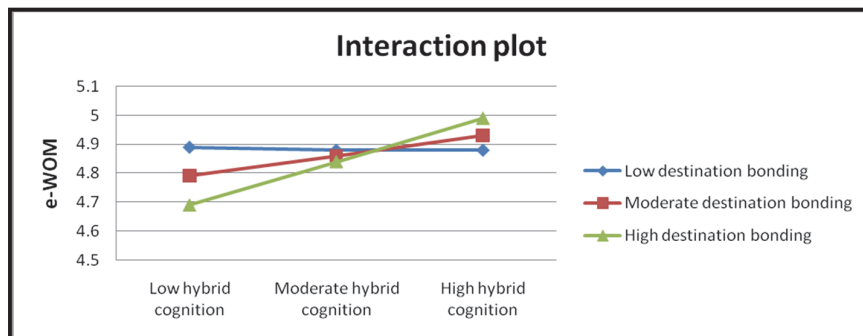
Table 9
Goodness-of-fit indices

Fit indices	χ^2	df	P	GFI	AGFI	CFI	RMR	RMSEA
Values	784.16	376	0.000	0.984	0.979	0.962	0.045	0.057

The final structural model with regression coefficients is depicted in Fig.3
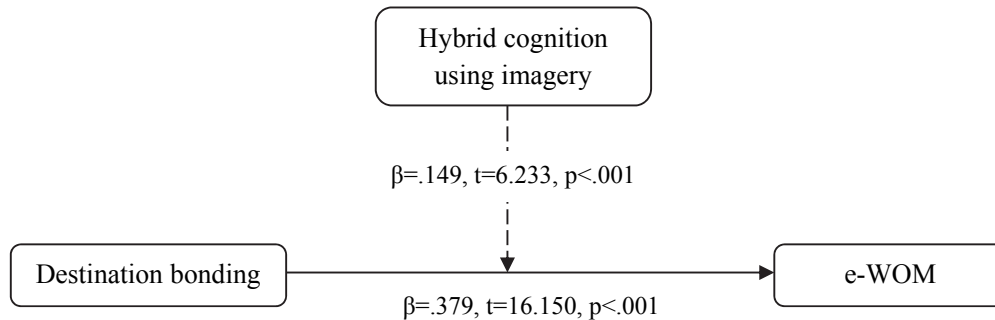

Fig. 3. Final structural model

5. Discussion and conclusion

The study focused on assessing the implications of sharing electronic images in the context of destination bonding and its subsequent impact on e-WOM. Literature revealed that both geo-physical and cultural highlights have antecedent effects on destination bonding which, in turn, stimulates pro-destination advocacy. But with the changing pattern of communication and interaction triggered by mobile devices and online sharing platforms, the nature of cognitive expression as a precursor to destination bonding has undergone a serious metamorphosis. The study reinforced researcher's postulate as sharing of visual imagery and supportive text was found as a strong and enhanced manifestation of utilitarian value which, at the same time, has been reflective of hedonic feelings associated with the destination. The study further identified a technology-induced fused cognition, termed as 'hybrid cognition' that has a strong and positive dimensional impact on destination bonding. It was significantly detected in the use of Instagram images across social networking sites namely Facebook. The study identified the underlying notions of hybrid cognition namely destination distinctiveness (related to destination identification), destination referent continuity (legacy of visits to a specific destination as a habitual coherent reference), destination congruence (reflection of self-image) and destination-related self-esteem (taking pride in visiting specific destination). The study threw light on assimilation of these notions and expression through Instagram imagery and narratives. The summative content analysis was reflective of these notions. While assessing the impact of moderation of hybrid cognition on the link between destination bonding and e-WOM, it was found that strong and positive hybrid cognition increases the impact of destination bonding on the tendency of e-WOM, where, technologically, e-WOM uses the service of Instagram and online platforms of information sharing. The study also identified that e-WOM is an expression of visuals and narratives captured by mobile devices, namely, Instagram and shared across social networking platforms for maximum reach and impact. Santiniketan was selected as the destination for the purpose of this study as it has been recognized to host perennial flow of visitors who flock to experience its rich culture, tradition and heritage. The study reinforced the common assumption that a visit to Santiniketan is not only visiting a specific destination, but also reflects visitors' choice of destination, thereby, is reflective of the feeling of 'destination related self-esteem'.

With the advent and proliferation of social media and supportive technology to share images and narratives, the online community has grown in stature as a source of reference. Considering that e-WOM is anonymous and has global spread in real-time, destination marketing organizations (DMOs)

are acknowledging it having stronger impact on decision making compared to conventional word-of-mouth. The social presence induced by e-WOM as output behavior of hybrid cognition leading to destination bonding should be seriously considered by the DMOs to understand traveler behavior. Extensive study of images and narratives shared by the visitors as an expression of destination bonding could be extremely useful to DMOs to identify elements to differentiate and highlight travel offers.

This study has certain geo-physical limitations as it was confound to a single location with small sample size as informant. The study can be taken up for a wider geographical coverage with large sample to have a more generalized model. Future extrapolations of the study can be done by incorporating a number of relevant marketing and travelling issues namely travel customization, destination branding, destination communication etc. Consequently new relationship may be identified involving studies related to destination bonding and new marketing paradigms focused on travelling and travel behaviors.

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