Moderated mediation analysis of tourist-based destination brand equity: Structural differences by tourist nationality

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Abstract: This study examines the impact of the causal relationship between destination brand knowledge (DBK) and destination brand loyalty (DBL) on destination brand equity (DBE). It evaluates the partial mediating role of destination brand trust (DBT) and the moderating role of tourist nationality. Responses to a questionnaire from 420 Chinese and Japanese tourists, who visited Seoul, were used to conduct moderated mediation analysis. The results indicated a positive effect of DBK on DBL, suggesting that in the structure of DBE, the three dimensions of DBK—destination brand awareness, destination brand image, and destination brand quality—explain DBL. DBT improves DBL, measured through destination choice and revisit intention. Quality control strategies, including information transmission and construction of management systems for the Chinese tourist market, and brand image improvement strategies, including tourism program diversity and the development of positive messages for the Japanese tourist market, may be required in future destination brand marketing.

Keyword: destination brand equity, destination brand knowledge, destination brand trust, tourist nationality, moderated mediation analysis

Many global destinations witness crime and safety issues, political conflicts, and contagious diseases that prevent tourists from experiencing such destinations to the fullest, and these factors hinder tourists' trip destination selections (Hsu & Cai, 2009). For instance, engaging in activities in an unfamiliar location may cause emotional anxiety among tourists. Therefore, social safety and reliability of the destination are also essential when choosing a destination (Jensen & Svendsen, 2016). Thus, establishing trust in a tourist destination is an increasingly important that must be considered (Chen & Phou, 2013; Dedeoğlu et al., 2019).

Studies examining the structure of destination brand equity (DBE) have not provided a clear conclusion on the role and effect of destination brand trust (DBT). While many studies on DBE based on Keller's (1993) customer-based brand equity (CBBE) theory have considered DBT as one of the elements of destination brand knowledge (DBK), its mediation role in destination brand loyalty (DBL) requires further verification. Unknown risks are likely to have negative impacts on the destination choice process, destination image and attachment, affecting destination-branding strategies in the present and long term. DBT refers to a tourist's expectations about tourism activities, and DBK is the perceived ability of a destination to fulfil or exceed tourists' expectations (Hsu & Cai, 2009). DBT can become an important indicator of destination marketing performance in the future, acting as one of the main indicators of tourists' intention to revisit a location, alongside tourist satisfaction (Su et al., 2017).

According to Um and Crompton's (1990) travel destination choice process, external input information (e.g., significance, symbolism, and social stimuli) had a stronger impact on destination choice than internal inputs (e.g., personal characteristics, motives, values, and attitude). However, currently, there are minimal differences between external and internal methods of gathering information. Therefore, tourists' internal inputs are likely to be involved in the process of destination selection (Mill & Morrison, 1998). For example, in terms of travel motivation, if the purpose of the trip is sightseeing, values such as having fun, excitement, and new tourism activities (like outdoor activities) may be considered in the destination choice (Jang & Cai, 2002). However, in the case of business trips, evaluation factors including the destination's attractiveness and functionality serve as important selection criteria (Hankinson, 2005). In other words, the differences

between the groups due to the tourists' internal inputs will contribute to the development of differential market-specific counterproposals during the destination marketing strategy planning process.

Considering these aspects, this study focuses on one of the most representative personal characteristics of tourists: their nationality. Because the purpose of verifying the structure of DBE is to acquire information that would promote the development of medium to long term destination branding strategies, it will be effective to analyse the differences in tourists' characteristics from a broad perspective. So far, very few studies have sought to empirically verify how the causal relationship of DBE changes due to tourist nationality. Therefore, identifying the conditional indirect effect of DBT and tourist nationality on DBK and DBL will assist in confirming both the theoretical and practical significance of this study.

1. Literature Review

1.1 Destination Brand Equity

Aaker (1996) stated, "The challenge for many brands is to develop credible and sensitive measures of brand strength that supplement financial measures with brand asset measures." However, Keller (1993) proposed, "Brand equity considers the differentiation effect that the customers' knowledge of the brand has on the customers' response to a product or service."

Based on these perspectives and in the context of this study, DBE is defined as the differential effect of brand knowledge of the destination (brand recognition, brand image and brand quality) obtained from local tourism activities which influence brand trust and loyalty.

Recent studies on DBE reported that destinations with uncertain risks are seen as problematic in the tourists' decision-making process (Hus & Cai, 2009); thus, they are very likely to be excluded from their choices. Furthermore, previous studies have verified the significance and role of DBT (e.g., Chen & Phou, 2013; Sürücü et al., 2019).

1.2 Destination Brand Awareness (DBA)

Brand awareness indicates consumers' capacity to accurately differentiate between specific brands or accurately visualize a specific brand (Keller, 1993). Brand awareness also refers to brand salience (recognition, recall, top of mind, brand dominance, brand opinion) on the perceptions of consumers. (Washburn & Plank, 2002).

In the structure of DBE, DBA is identified in many studies as the primary variable that affects other variables such as brand image and brand quality (Pike et al., 2010). However, for tourists that have not previously visited a destination, there is no significant causal relationship between DBA and DBL (Im et al., 2012). Additionally, when word-of-mouth and destination service performance effects increase, DBA has a positive effect on DBL (Yang et al., 2015). In this study, the relationship between DBA and DBL was set as a positive causal relationship, and the following hypothesis was developed:

H1-1. Destination brand awareness is positively related to destination brand loyalty.

1.3 Destination Brand Image (DBI)

Through the image formation process, Gartner (1994) presented cognitive (internally accepted picture of destination attributes), affective (motives for visiting the destination), and conative (actions and behavior after cognitive and affective evaluations) as three main elements influencing destination image. Of these, cognitive image refers to the evaluation of the overall (tourism destination) image as a location, in terms of its natural and physical environment.

Conversely, effective and conative images, which evaluate the tourists' psychology and emotions in terms of motivation and behavior, are linked to brand theories. Based on Gartner's (1994) image formation process and Keller's (1993) brand association formation, Cai (2002) explained the concept of brand image in destination branding. In addition, based on Keller's (1993)

definition of brand image, Cai (2002) defined DBI as "perceptions about the place as reflected by the associations held in a tourist's memory." When the destination's overall image (e.g., atmosphere and natural environment) or the affective and conative images (e.g., identification with the tourist's image and emotions) are positive, they have a beneficial effect on DBL (e.g., Pike & Bianchi, 2016; Tasci, 2018). Therefore, in this study, the relationship between DBI and DBL was set as a positive causal relationship, and the following hypothesis was developed:

H1-2. Destination brand image is positively related to destination brand loyalty.

1.4 Destination Brand Quality (DBQ)

The perceived quality, obtained from the purchase of products, services, and experiences, strengthens brand equity in terms of price premium, price elasticity, and brand usage (Aaker, 1996). DBQ is divided into two main factors: perceived quality, which focuses on intangible qualities such as consistent tour service and high-quality tourism experience (e.g., Boo et al., 2009; Buil et al., 2008), and tourism environment quality, which focuses on the tangible and complex qualities of tourist facility, hardware, and infrastructures, such as accommodation and restaurants (e.g., Dedeoğlu et al., 2019; Hsu et al., 2012).

Moreover, complex elements of DBQ (perceived quality or/and tourism environment quality), such as human services, physical facilities, and tourism experiences, have a positive effect on DBL (Yang et al., 2015). Therefore, in this study, the relationship between DBQ and DBL was set as a positive causal relationship, and the following hypothesis was developed:

H1-3. Destination brand quality is positively related to destination brand loyalty.

1.5 Mediating Role of Destination Brand Trust (DBT)

Brand trust is a customer's general expectation of or trust in a product or service (Anderson & Narus, 1990; Moorman et al., 1992), and is a core element that contributes to the improvement of brand loyalty along with satisfaction and brand evaluation (Veloutsou, 2015). In addition to brand loyalty, when a consumer has a positive experience with a specific brand, brand trust is established (Huaman-Ramirez & Merunka, 2019).

Brand trust is closely related to the destination's service and hospitality (Lee & Back, 2008) because tourism activities include service experiences at various places that tourists visit. Specifically, consumers' trust in the service providers has a complete mediation effect on the relationship between service quality, revisit intention and word-of-mouth (Su et al., 2017).

Destination trust is positively affected by destination image and destination personality which has a stronger direct effect on destination loyalty than destination satisfaction (Chen & Phou, 2013). Additionally, if the evaluation of the destination's reputation is positive, there is a beneficial effect on destination trust (Artigas et al., 2017). Therefore, the following hypotheses regarding DBT were developed:

H2-1. Destination brand awareness is positively related to destination brand trust.

H2-2. Destination brand image is positively related to destination brand trust.

H2-3. Destination brand quality is positively related to destination brand trust.

H2-4. Destination brand trust is positively related to destination brand loyalty.

H3-1. Destination brand trust mediates the relationship between destination brand awareness and destination brand loyalty.

H3-2. Destination brand trust mediates the relationship between destination brand image and destination brand loyalty.

H3-3. Destination brand trust mediates the relationship between destination brand quality and destination brand loyalty.

1.6 The Moderating Effect of Tourist Nationality

Since tourists' values are representative of their nationality (or cultural area), nationality may influence various decision-making processes, including tourism behaviors, elements of tourism they prioritize, and forms of tourism they choose (Pizam & Reichel, 1996).

A tourist's nationality encompasses differences in social values, which may affect the selection of a destination and tourism activities (Wong & Lau, 2001). To improve the theoretical model for DBE and acquire further information on destination marketing segmentation, it is necessary to verify the function of tourist nationality.

Studies conducted by Bianchi et al. (2014) and Um et al. (2006) proposed that tourists' nationality may serve as a moderating variable in DBE. For the purpose of the current study, tourist nationalities were categorized into Japanese and Chinese. Due to modernization, these two groups display completely different aspects of social values, including political systems, economic standards, and socio-cultural environment and status. Therefore, the overall evaluation of DBE (structure of causal relationship) was assumed to show statistical significance. Accordingly, the following hypotheses were developed:

H4-1: Tourist nationality moderates the indirect relationship between destination brand awareness and destination brand loyalty.

H4-2: Tourist nationality moderates the indirect relationship between destination brand image and destination brand loyalty.

H4-3: Tourist nationality moderates the indirect relationship between destination brand quality and destination brand loyalty.

1.7 Proposed Theoretical Model

Thirteen hypotheses were developed and used to construct an integrative model (Figure 1). The model proposes that DBK (DBA, DBI, and DBQ) is likely to have significant impacts on DBT, which, in turn, acts as an antecedent of DBL. The proposed model also suggests that DBT is likely to play a significant role as an antecedent and mediator in DBL. Furthermore, the model suggests that tourists' nationality is likely to influence the conditional indirect effect between DBK and DBL via DBT.
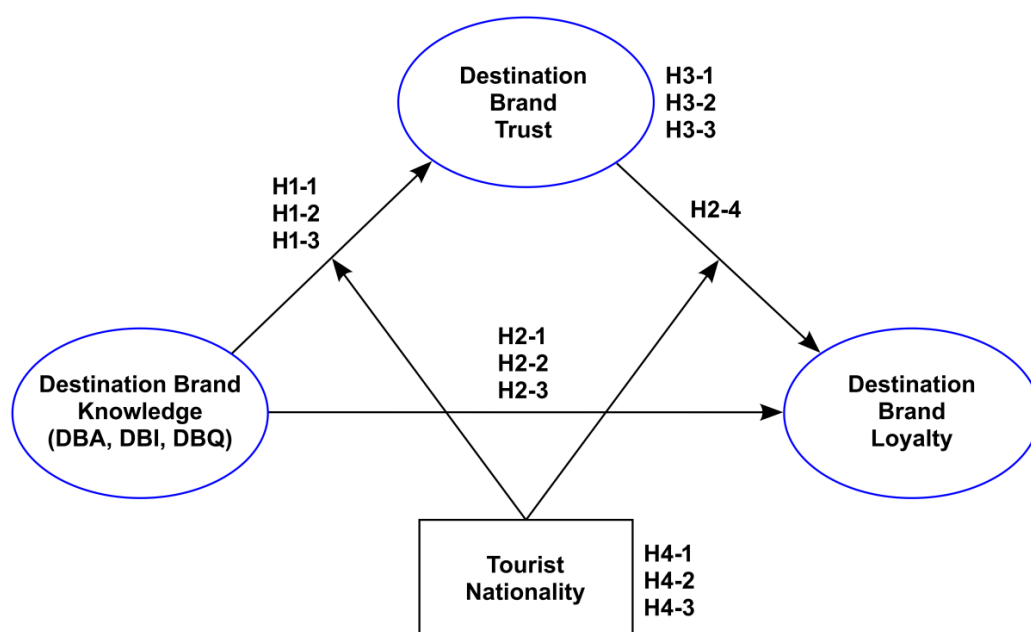

Figure 1. Proposed Theoretical Moderated Mediation Model and Hypotheses

2. Methodology

2.1 Sample Characteristics

The general characteristics of the survey subjects are as follows (Table 1):

The sample included 127 men (30.2%) and 293 women (69.8%). 33 individuals (7.9%) were below the age of 20, 219 individuals (52.1%) were in their 20s, 105 individuals (25.0%) were in their 30s, and 63 individuals (15.1%) were above 40. Regarding visit experiences, 159 individuals (37.9%) were first-time tourists and 261 individuals (62.1%) had visited multiple times. Types of travel included 159 individuals (37.9%) who were free independent travelers (FIT) and 261 individuals (62.1%) who were on a package tour. Additionally, there were 205 (48.8%) Japanese tourists and 215 (51.2%) Chinese tourists.

Table 1. Sample Characteristics (n=420)

Characteristics	Categories	Number	Percentage (%)
Gender	Male	127	30.2
	Female	293	69.8
	Total	420	100.0
Age	Below 20	33	7.9
	21-29	219	52.1
	30-39	105	25.0
	40 & above	63	15.1
	Total	420	100.0
Visit experience	First time	159	37.9
	Multiple times	261	62.1
	Total	420	100.0
Travel type	FIT	159	37.9
	Package tour	261	62.1
	Total	420	100.0
Nationality	Japan	205	48.8
	China	215	51.2
	Total	420	100.0

2.2 Sample and Data Collection

According to data from South Korea's International Visitor Survey (2018), about 14 million foreign tourists visited South Korea in 2018. 4.64 million were Chinese (33.1%, excluding visitors from Taiwan and Hong Kong) and 2.86 million (20.4%) were Japanese. About 79.4% of all tourists visited South Korea's capital, Seoul, a tourism destination with a wide range of shopping districts such as Myeong-dong, Dongdaemun Market, and Gyeongbokgung Palace, historical places and entertainment experiences, with services and facilities that meet international standards. Therefore, for the purpose of this study, Seoul was chosen as the survey location and Japanese and Chinese tourists who travelled to Seoul were selected as the population.

The survey questionnaire was translated into Japanese and Chinese. The Chinese translation was reviewed by a professor from China at Okinawa International University. A pilot test was conducted prior to the survey with 30 Japanese and 30 Chinese tourists who had travelled to Seoul to assess issues related to the structure, contents, reliability, and validity of the measurement items.

Using convenience non-probability sampling, surveys were carried out and included supplementary individual interviews between mid-July and mid-August of 2019. Surveys were conducted while the tourists were taking a break from their sightseeing activities, checking out from the hotels (250 samples), or waiting for their flights at the Incheon International Airport (250 samples). Ten college students majoring in tourism who were trained in advance and seven hotel managers in Seoul were involved in the data collection process. Although the target was to survey 500 tourists (250 Japanese and 250 Chinese tourists), 475 were included in the final sample

(Response rate 95%). After omitting the data of 55 incompatible responses from the sample, the responses of 420 tourists (205 Japanese tourists and 215 Chinese tourists) were selected for analysis.

2.3 Measures

All surveys were developed in Japanese and Chinese and conducted with tourists visiting Seoul, South Korea.

Measures for DBA in this study questionnaire were composed of four items, based on previous studies (e.g., Konecnik & Gartner, 2007; Pike et al., 2010). DBI was comprised of six items, based on previous studies (e.g., Konecnik & Gartner, 2007; Qu et al., 2011). Assessment of DBQ was measured using four items, based on previous studies (e.g., Bianchi et al, 2014; Qu et al., 2011). DBT included four items, based on previous studies (e.g., Hsu et al., 2012). DBL was composed of five items, based on previous studies (e.g., Hsu et al., 2012; Konecnik & Gartner, 2007). All measures utilized a Likert scale ranging from "totally disagree (1 point)" to "strongly agree (7 points)."

2.4 Data analysis

IMB SPSS27.0 was used to confirm the analysis results of this study. Specifically, models 4 and 14 of PROCESS-macro were used to verify H3-1–3-3 and H4-1–4-3 of the proposed theoretical model. Model 4 verified the mediation effect of DBT between DBK and DBL, and model 14 verified how the mediation effect of DBT changed based the tourist's nationality.

During data analysis, the bootstrap resamples for moderated mediation were performed with 10,000 resamples and a bias-corrected 95% confidence interval at each level of the moderator.

3. Results

The proposed model was estimated using SPSS program version 27. The results indicated that the proposed model fits were reasonable and acceptable (Tables 2 & 3). First, for scale validity, convergent validity (standardized loadings) and discriminant validity (inter-factor correlations) were applied. Confirmatory factor analysis using the maximum likelihood method was conducted with a varimax rotation, and an eigenvalue greater than or equal to 1. All item standardized loadings of the proposed model were above the benchmark value of 0.50, as recommended by Hair et al (2006). The inter-factor correlation analysis among the variables ranged from 0.725 to 0.874 ($p <$ 0.01), therefore, the results verified the evidence of discriminant validity. Second, for scale reliability, internal consistency measures (Cronbach's alpha α, composite reliability, and average variance extract) were utilized. Cronbach's alphas were between 0.812 and 0.899, which is above the cut-off point of 0.60. Additionally, composite reliability values were between 0.877 to 0.910, which are above the cut-off point of 0.60. The average variance extract values ranged from 0.599 to 0.718, which are above the cut-off level of 0.50 (Hair et al., 2006).

Table 2. Psychometric Properties of the Measures (n=420)

Scale items	Loading	Mean	S.D.
Destination Brand Awareness (DBA)			
DBA1. Seoul has a good name and reputation	0.824	4.905	1.268
DBA2. The characteristics of Seoul come to my mind quickly	0.841	4.783	1.303
DBA3. Seoul is very famous	0.845	4.952	1.425
DBA4. When I am thinking about the tour, Seoul comes to my mind immediately	0.746	4.401	1.317
Destination Brand Image (DBI)			
DBI1. Seoul has good shopping facilities	0.741	5.271	1.364
DBI2. Seoul has good nightlife and entertainment	0.814	5.060	1.300
DBI3. Seoul has a relaxing atmosphere	0.734	4.767	1.262

DBI4. Seoul has interesting historical attractions	0.763	4.809	1.230
DBI5. Seoul has an exciting atmosphere	0.826	4.869	1.243
DBI6. Seoul has good opportunities for recreation activities	0.762	4.890	1.214

Destination Brand Quality (DBQ)

DBQ1. Seoul has high quality of accommodation and restaurants	0.805	5.021	1.223
DBQ2. Seoul has appealing local food (cuisine)	0.856	4.998	1.225
DBQ3. Seoul has high-quality infrastructure	0.760	4.779	1.336
DBQ4. Seoul has high level of cleanliness	0.781	5.064	1.250

Destination Brand Trust (DBT)

DBT1. My tour experience in Seoul will be consistent next time I revisit	0.834	4.888	1.247
DBT2. Seoul will not disappoint me next time	0.856	4.888	1.394
DBT3. Seoul will meet my expectations next time	0.855	4.866	1.234
DBT4. I feel safe and secure when staying in Seoul	0.843	4.859	1.221

Destination Brand Loyalty (DBL)

DBL1. I intend to visit Seoul in the future	0.843	4.945	1.251
DBL2. Thinking about Seoul makes me feel pleasant	0.823	4.666	1.333
DBL3. Seoul would be my preferred choice for a vacation	0.823	4.929	1.257
DBL4. I would advise other people to visit Seoul	0.872	5.024	1.329
DBL5. I feel good and positive when I think about staying in Seoul	0.861	4.902	1.184

Table 3. Inter-Factor Correlation and Validity Assessment (n=420)

	DBA	DBI	DBQ	DBT	DBL	AVE	CR	Cronbach's α
DBA	-					0.665	0.888	0.830
DBI	0.769**	-				0.599	0.900	0.865
DBQ	0.743**	0.761**	-			0.642	0.877	0.812
DBT	0.725**	0.759**	0.863**	-		0.718	0.910	0.868
DBL	0.756**	0.786**	0.823**	0.874**	-	0.713	0.925	0.899

Note: CR, composite reliability; AVE, average variance extracted

** Significant at the $p < 0.01$ level

Having established the psychometric properties of the proposed model, multiple regression analysis using SPSS version 27 software was conducted to test the proposed hypotheses H1-1–H1-3 and H2-1–2-3. For H2-4, a simple regression analysis was performed. The regression model showed significant goodness of fit (H1-1–H1-3: $R^2 = 0.761$, df = 3, F = 419.178, $p < 0.01$; H2-1–H2-3: $R^2 = 0.790$, df = 3, F = 490.969, $p < 0.01$; H2-4: $R^2 = 0.749$, df = 1, F = 1218.160, $p < 0.01$).

Seven hypotheses were supported by the regression analysis. Regarding the relationship between the DBK and DBL, all factors had a direct influence on DBL. Therefore, H1-1 ($\beta = 0.249$, t = 5.822, $p < 0.01$), H1-2 ($\beta = 0.272$, t = 5.784, $p < 0.01$) and H1-3 ($\beta = 0.432$, t = 10.349, $p < 0.01$) were supported. H2-1–2-3 proposed that DBK would positively influence DBT and H2-4 proposed that DBT positively influences DBL. H2-1($\beta = 0.116$, t = 2.907, $p < 0.01$), H2-2 ($\beta = 0.216$, t = 4.924, $p < 0.01$) and H2-3 ($\beta = 0.613$, t = 15.641, $p < 0.01$) were supported. Additionally, the findings supported H2-4, confirming that DBT is positively related to DBL ($\beta = 0.876$, t = 34.902, $p < 0.01$).

While examining the indirect effects of DBK on DBL via DBT, the bootstrapping method using a 95% CI and 10,000 resamples was applied. This bootstrapping method is considered superior to the Sobel test due to its robust nature in testing mediation effects (Hayes, 2015). Additionally, indirect effects are significant when the obtained confidence interval does not straddle

zero (Hayes, 2013, 2015). To assess the indirect effects with bootstrapping, the PROCESS-macro model 4 was utilized and interpreted for each model.

The indirect effects were verified, and the results are presented in Table 4. The indirect effects of DBA on DBL (β = 0.494, Boot. SE = 0.042, Boot. 95% CI = 0.413 to 0.575), DBI on DBL (β = 0.497, Boot. SE = 0.042, Boot. 95% CI = 0.415 to 0.580), and DBQ on DBL (β = 0.560, Boot. SE = 0.058, Boot. 95% CI = 0.448 to 0.673), via DBT were all significant, since the 95% confidence interval did not straddle zero, providing support for H3-1–H3-3. These results indicate that destination brand has a direct positive effect on DBL and mediates the relationship between DBK and DBL.

Table 4. Structural Model Parameter Estimates and Mediating Effect (n=420)

Hypothesized Path		β	SE	t	Result
H1-1	DBA → DBL	0.249	0.043	5.822**	Supported
H1-2	DBI → DBL	0.272	0.047	5.784**	Supported
H1-3	DBQ → DBL	0.432	0.042	10.349**	Supported
H2-1	DBA → DBT	0.116	0.040	2.907**	Supported
H2-2	DBI → DBT	0.216	0.044	4.924**	Supported
H2-3	DBQ → DBT	0.613	0.039	15.641**	Supported
H2-4	DBT → DBL	0.876	0.025	34.902**	Supported
Mediation effects		Effect	Boot. SE	Boot. 95% CI	Result
H3-1	DBA → DBT → DBL	0.494	0.042	0.413, 0.575	Supported
H3-2	DBI → DBT → DBL	0.497	0.042	0.415, 0.580	Supported
H3-3	DBQ → DBT → DBL	0.560	0.058	0.448, 0.673	Supported

Note: Boot, bootstrap; SE, standard error; CI, confidence interval (95% CI for conditional direct and indirect effect using bootstrap)
** Significant at the p < 0.01 level

The next stage focused on the effect of tourist nationality as a moderator in the mediational pathway between DBK and DBL via DBT (Tables 5 to 7). The proposed model was initially estimated, where tourist nationality moderated both the direct and indirect relationship between DBK and DBL. However, the results of the pilot test revealed that tourist nationality did not moderate the direct relationship between DBK and DBL. Consequently, the non-significant interactions were removed, and the data were reanalyzed using a model where tourist nationality moderated only the indirect relationship.

To test the conditional indirect effects of DBK on DBL via DBT, this study estimated parameters for three regression models using the PROCESS-macro model 58 and the index of moderated mediation to interpret the results (Hayes, 2013, 2015). In addition, the bootstrapping method with a 95% confidence interval and 10,000 resamples were implemented while examining the conditional indirect effects of DBK on DBL via DBT.

Results for H4-1–H4-3 are presented in Tables 5 to 7. First, moderated mediation analysis was carried out concerning DBA in H4-1 (Table 5). The overall model was statistically significant (R^2 = 0.800, F= 399.780, p < 0.01). However, the interaction between DBT and tourist nationality (Coeff = -0.063, SE = 0.046, p > 0.05, 95% CI = -0.154 to 0.027) was not significant, as the confidence interval contained zero. The conditional indirect effect was calculated based on different tourist nationality groups, using 10,000 bootstrap resamples. Results revealed that the conditional indirect effect between DBA and DBL via DBT was stronger for Japanese tourists (β = 0.522, Boot. SE = 0.055, Boot 95% CI = 0.414 to 0.633) than Chinese tourists (β = 0.419, Boot. SE = 0.053, Boot 95% CI = 0.313 to 0.523). However, the confidence interval for the index of moderated mediation concerning the conditional indirect effect via DBT included zero (Boot. SE = 0.069, Boot

95% CI = -0.243 to 0.029). In other words, it cannot be said with 95% confidence that the indirect effect is influenced by tourist nationality, ultimately leading to the rejection of H4-1.

Table 5. Moderated Mediation Analysis of DBA on DBL by Tourist Nationality (n=420)

	Model 1 (DBT)			Model 2 (DBL)		
	Coeff	SE	95% CI	Coeff	SE	95% CI
Constant	-0.007	0.107	-0.218, 0.204	0.292	0.072	0.150, 0.434
DBA (X)	0.859	0.104	0.654, 1.065	0.318	0.033	0.252, 0.384
DBT (M)				0.741	0.075	0.595, 0.888
Nationality (V)	0.004	0.068	-0.129, 0.137	-0.190	0.045	-0.280, -0.101
M x V (Inter_1)	-0.089	0.068	-0.223, 0.044	-0.063	0.046	-0.154, 0.027
Model Summary	$R^2 = 0.545$, $F = 159.928$			$R^2 = 0.800$, $F = 399.780$		
	($df = 3,400$), $p < 0.01$			($df = 4,399$), $p < 0.01$		
Conditional indirect effect (DBA→DBT→DBL)						
Nationality	Effect		Boot. SE		Boot. 95% CI	
Japanese	0.522		0.055		0.414, 0.633	
Chinese	0.419		0.053		0.313, 0.523	
Index of moderated mediation						
	Index		Boot. SE		Boot. 95% CI	
Nationality	-0.104		0.069		-0.243, 0.029	

Note: Coeff, Co-efficient; SE, standard error; Boot, bootstrap; CI, confidence interval (95% CI for conditional direct and indirect effect using bootstrap)

Second, moderated mediation analysis was implemented to examine DBI in H4-2 (Table 6). The overall model was statistically significant, along with one significant interaction between DBT and tourist nationality ($R^2 = 0.795$, F = 390.502, p < 0.01, Coeff = -0.101, SE = 0.046, p < 0.05, 95% CI = -0.192 to -0.010). The conditional indirect effect was calculated based on tourist nationality groups, using 10,000 bootstrap resamples. Results revealed that the indirect effect between DBI and DBL via DBT was significant for both Japanese and Chinese tourists. Moreover, results showed that this indirect effect was stronger for Japanese ($\beta = 0.571$, Boot. SE = 0.056, Boot 95% CI = 0.459 to 0.685) than Chinese tourists ($\beta = 0.400$, Boot. SE = 0.046, Boot 95% CI = 0.306 to 0.487). The index of moderated mediation was negative with 95% confidence (-0.300 to -0.048). As this confidence interval did not include zero, it can be concluded that the indirect effects of DBI on DBL (via DBT) are moderated by tourist nationality. Therefore, H4-2 is supported.

Table 6. Moderated Mediation Analysis of DBI on DBL by Tourist Nationality (n=420)

	Model 1 (DBT)			Model 2 (DBL)		
	Coeff	SE	95% CI	Coeff	SE	95% CI
Constant	-0.193	0.096	-0.382, -0.004	0.191	0.073	0.048, 0.335
DBI (X)	1.003	0.096	0.815, 1.191	0.326	0.037	0.254, 0.399
DBT (M)				0.770	0.075	0.623, 0.917
Nationality (V)	0.133	0.060	0.014, 0.251	-0.124	0.046	-0.214, -0.033
M x V (Inter_1)	-0.149	0.060	-0.267, -0.031	-0.101	0.046	-0.192, -0.010
Model Summary	$R^2 = 0.632$, $F = 230.226$			$R^2 = 0.795$, $F = 390.502$		
	($df = 3,403$), $p < 0.01$			($df = 4,402$), $p < 0.01$		
Conditional indirect effect (DBI→DBT→DBL)						
	Nationality		Effect		Boot. SE	
	Japanese		0.571		0.056	
	Chinese		0.400		0.046	
Index of moderated mediation						
	Index		Boot. SE		Boot. 95% CI	

	Nationality	-0.171	0.064

Note: Coeff, Co efficient; SE, standard error; Boot, bootstrap; CI, confidence interval (95% CI for conditional direct and indirect effect using bootstrap)

Finally, moderated mediation analysis was conducted examining DBQ in H4-3 (Table 7). The overall model was statistically significant, along with one significant interaction between DBT and tourist nationality (($R^2 = 0.781$, F = 358.314, p < 0.01, Coeff = -0.097, SE = 0.048, p < 0.05, 95% CI = -0.191 to -0.003). As before, the conditional indirect effect was calculated based on tourist nationality groups, using 10,000 bootstrap resamples. Results revealed that the indirect effect between DBQ and DBL via DBT was significant, and this indirect effect was stronger for Japanese ($\beta = 0.594$, Boot. SE = 0.066, 95% CI = 0.473 to 0.730) than Chinese tourists ($\beta = 0.473$, Boot. SE = 0.058, 95% CI = 0.363 to 0.588). The index of moderated mediation was negative with 95% confidence (-0.239 to -0.013). As this confidence interval did not include zero, the results suggest indirect effects of DBQ on DBL (via DBT) are moderated by tourist nationality which supports H4-3.

Table 7. Moderated Mediation Analysis of DBQ on DBL by Tourist Nationality (n=420)

	Model 1 (DBT)			Model 2 (DBL)		
	Coeff	SE	95% CI	Coeff	SE	95% CI
Constant	0.033	0.078	-0.122, 0.187	0.286	0.075	0.138, 0.434
DBQ (X)	0.961	0.078	0.888, 1.114	0.311	0.048	0.217, 0.406
DBT (M)				0.756	0.082	0.596, 0.916
Nationality (V)	-0.022	0.049	-0.119, 0.075	-0.187	0.047	-0.280, -0.094
M x V (Inter_1)	-0.059	0.050	-0.157, 0.039	-0.097	0.048	-0.191, -0.003
Model Summary	$R^2 = 0.757$, $F = 417.793$			$R^2 = 0.781$, $F = 358.314$		
	($df = 3,403$), $p < 0.01$			($df = 4,402$), $p < 0.01$		

Conditional indirect effect (DBQ→DBT→DBL)

	Nationality	Effect	Boot. SE
	Japanese	0.594	0.066
	Chinese	0.473	0.058

Index of moderated mediation

	Index	Boot. SE	Boot. 95% CI
	Nationality	-0.121	0.058

Note: Coeff, Co-efficient; SE, standard error; Boot, bootstrap; CI, confidence interval (95% CI for conditional direct and indirect effect using bootstrap)

4. Conclusion

4.1 Discussion and Implications

This study verified the causal relationship between DBK and DBT/DBL in the structure of DBE. It also clarified and confirmed the role of DBT as a parameter.

The verified outcomes of H1-1–H1-4 showed that DBK has a positive effect on DBL. These findings support the results of previous studies (e.g., Bianchi & Pike, 2011; Hsu et al., 2012; Pike et al., 2010; Tasci, 2018) by reconfirming that, in the structure of DBE, the three dimensions of DBK—DBA, DBI, and DBQ—are determinants that explain DBL.

A positive causal relationship was identified in hypotheses H2-1–H2-3. Some of these results empirically support Hsu and Cai's (2009) argument. These findings also indicated that DBQ, which was not included in Hsu and Cai's (2009) "Conceptual Model of Destination Branding," had the largest impact on DBT. Based on these results, it was concluded that the trust developed among the surveyed Japanese and Chinese tourists regarding their perceptions of Seoul was largely due to environmental factors such as tourist facilities. The results of H2-4 also indicated that DBT had a

high positive effect on DBL. Moreover, research on consumer behavior indicates that, in some cases, trust has a higher influence on customer brand loyalty—the consumer's favorite brands—than satisfaction (e.g., Menidjel et al., 2017; Veloutsou, 2015). From a similar perspective, the results of H2-4 indicated that DBT is a meaningful determinant in the improvement of DBL, measured in terms of destination choice and revisit intention.

The results of H3-1–H3-3, which verified the mediation effect of DBT, indicated that DBT had a statistically significant indirect effect on all paths between the three dimensions of DBK and DBL. In a similar context, research on product purchase and usage experience suggests that, for mobile phone users, brand trust has a higher mediation effect on the relationship between risk aversion (the tendency to buy familiar brands) and purchase loyalty than brand affect (Matzler et al., 2008). Additionally, regarding the relationship between brand experience and behavioral and attitudinal loyalty toward mobile phones, brand trust had a significant mediation effect on behavioral experience factors (Huang, 2017). Thus, when concrete behavior and user experiences affect brand loyalty, the significance of brand trust increases. Furthermore, according to the results of H3-1–H3-3, DBT also demonstrates the highest indirect effect between DBQ and DBL. Considering the structure of DBE which includes product purchase and usage experience, tourists objectively evaluate usage experiences (e.g., the use of tourist services and facilities). Therefore, DBE was found to affect tourists' DBL, and DBT has a high mediation effect which partially support research results proposed by Su et al. (2017).

Finally, in the results of the moderated mediation analysis that verified the conditional indirect effect of tourist's nationality, DBI (H4-2) and DBQ (H4-3) were statistically significant, but DBA (H4-1) was not significant. In all three verification results, the indirect effect of DBT on DBK and DBL was higher among Japanese tourists. Japanese and Chinese tourists showed an effect of 0.571 and 0.400, respectively, in the relationship between DBI and DBL, which displayed the largest difference in indirect effect between the two groups. This indicates that, when DBL is given a positive rating by the DBI, the indirect effect of DBT increases more significantly among Japanese than Chinese tourists. These results suggest that it is possible to expect a higher improvement in DBT and loyalty among Japanese tourists through DBI elements, such as a relaxing atmosphere and good entertainment, than among Chinese tourists. Similarly, the verification results of DBQ also suggest that, by improving the quality of tourism environment and facilities, it is possible to develop a more effective DBT and loyalty among Japanese than Chinese tourists.

The results of the study confirmed two theories. First, as a theoretical implication, the mediation effect of DBT in the structure of DBE was empirically verified. While the mediation effect and role of DBT was emphasized in Hsu and Cai's (2009) 'Conceptual Model of Destination Branding,' limited studies have proved practical implications. However, the outcomes of this study verified that DBT can act both as an element of the structure of DBE and as a parameter that can interpret the causal relationship in its theoretical structure in various ways. Hence, the evaluation factors of a brand contribute to the theoretical advances for the complex structure of DBE.

Second, very few studies have attempted to make a comparative analysis of the structure of DBE considering tourists' nationality. For this reason, a comparative analysis of the effect or role of tourist nationality as a moderator variable with other studies was limited. Some researchers indeed believe that, since tourist nationality contains differences in social values, it affects destination choices and tourist behavior (Wong & Lau, 2001). However, tourist nationality may not be a moderator variable capable of explaining the highly dense information required in destination brand evaluation, such as the tourists' detailed psychological and emotional changes. Nevertheless, from the perspective of an overall evaluation of destinations from potential tourists, considering tourist nationality may be effective in developing medium-to-long-term destination marketing strategies. The results of this study confirmed that in destination marketing strategies, it is important to strengthen the appeal of the DBI for the long term. This includes the possibility of producing

better destination brand management results in Japanese tourist markets. Therefore, the results of this study are relevant in continuously assessing how tourists of multiple core tourism markets evaluate the destinations from the brand perspective. In other words, when considering strategic marketing directions for each target market in international tourism marketing practice, this study can contribute to the establishment of a fundamental strategy for each market.

4.2 Limitations and Future Studies

This study was intended to partially complement and develop the structure of DBE from theoretical models of previous studies, however, a few limitations and future tasks have been identified.

First, after verifying the results of the conditional indirect effect, only DBA was statistically insignificant. Because the surveyed location, Seoul, is a close destination for Japanese and Chinese tourists, the differences in evaluation results, such as reputation and characteristics, may not have been large enough to have differentiated indirect effects on DBT. The next limitation is that the measurement items of DBT of this study were limited since the evaluation of trust in destinations was based on items used to measure the trust in product and service brands. Therefore, considering that the elements used to evaluate destination trust are more complex and diverse than those used for products and services, it is necessary to develop a new scale of measurement. Lastly, to ensure that the structure of DBE has not only theoretical progress but also practical applications, it is necessary to verify various moderator variables. In addition, radically changing information and communication technology also affects the tourism market. To be continuously up to date, it is preferable to analyze various characteristics of the tourism market as moderator variables and interpret what those analyses suggest, instead of identifying and verifying theoretical concepts. Therefore, tasks for future research include developing a new scale for DBT and analyzing various destinations through surveys to seek its theoretical advancement while searching for effective moderator variables.

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