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DESTINATION IMAGE: A CO-CITATION ANALYSIS

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ABSTRACT

Destination image concept is chosen because of the large impact of destination image on the academic research in tourism area. The purpose of this study to explore the academic foundations of destination image in tourism research. A co-citation analysis is applied to analyze most important articles that cited in the other studies. Total of 35destination image research articles cited by the leading Social Science Citation Index (SSCI) journals. The findings contribute to identify critical documents in tourism research, especially destination image theory. Moreover, this study provides insight into development of destination image research network in tourism industry.

INTRODUCTION

In recent years, with the change of the industrial structure, the contribution of the tourism industry has become larger than US $7.2 trillion to world GDP, representing 9.8% of global GDP (Report of World Travel & Tourism Council, 2015).To develop the tourism industry, the management and marketing of destination image is increasingly and becoming competitive globally. Therefore, countries with the developed tourism are focusing on creating the image of their country through tourism destination image. Destination image is defined as an individual's spirit representation of knowledge and feelings towards a tourism destination (Crompton, 1979; Fakeye & Crompton, 1991). According to MacKay & Fesenmaier (2000), destination image theory is considered a basic theme in tourism research. Especially, Tasci & Gartner (2007) asserted that destination image has been found as one of essencial components for tourism destination marketing and can express the perceive of tourists. The significance of research on destination image is often emphasized as a critical requirement for tourism development.

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However, most recent studies are still done within the context of specific study for a tourism destination. Moreover, the contribution of extant research to destination image and the generalizability of findings has limited (Gertner, 2011). An extend review of literature dedicated that there have been no previous scientific studies concerning synthesis of destination image studies. Consequently, this study to explore develop of destination image theory in tourism research, a co-citation analysis is applied to analyze most important articles that cited in the other studies. The identity of the important articles and authors is expected to explore general assessments of destination image research. Base on the result, this study provides sources of reference for researchers in tourism marketing and management field.

MATERIALS AND METHODS

Destination Image in tourism research: Svetlana & Juline (2010) asserts that destination image has been one of the main field of tourism research for recent years. Destination image research began by Gunn (1970). In his research, a destination image model was formed. Moreover, this study developed measurement scale that used to access destination image

factor. Since then, with development of tourism area research, destination image has become one of the most important keyword in the hospitality and tourism literature. In the research of Pike (2002), a review of 142 studies published in the nearly 30 years (from 1973 to 2000) that address issues of destination image and related effect. Therefore, this study provided a general perspective of previous studies within this topic. On the whole, there are different between three main researchers about the definition of destination image. According to Crompton (1979), destination image defined as the image as the composition of, ideas, beliefs and impressions that tourist perception about a destination. Moreover, Lawson and Baud Bovy (1977) use the behavioral components to describe concept of destination image such as perceptual and cognitive. Finally, a third perspective considered as an mental impression or overall visual, experience or place (Rezende-Parker, Morrison & Ismail, 2003).

Co-citation analysis: According to White (1990) and McCain (1990), a co-citation analysis is a appearance of bibliometric network analysis that can describe the structure of academic research fields. Co-citation analysis was recognized such as a important method to apply in bibliometric research (White and Griffith, 1981). Co-citation analysis provides the frequency that two documents are cited together by a citing sample article and thereby identify the relationship of them (Bellardo, 1980; Small, 1973).

Co-citation method: This study was formed by using co-citation analysis, a bibliometric method. Especially.
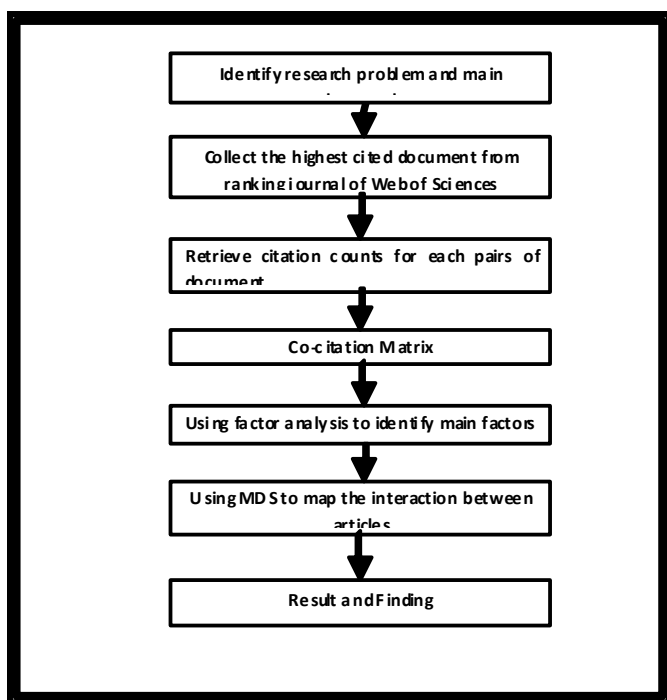

Fig. 1. Summarizes the steps of this study

Selection of research source: Especially, to collect the papers that concern "Destination Image" in tourism research, the SSCI database was selected to identify important research that contribute for the purposes of this study. The Social Sciences Citation Index (SSCI) was organized by The American Institute for Scientific Information, and covers scientific journal as well as essentialdatabase for researchers and scholars. Furthermore, the SSCI impact factor is important

criteria to assess the international impacts of scientific journals and identify the most cited articles frequently.

Data Collection: The used data in this paper were gathered fromthe citation data from the Web of Science. According to Acedo et, al (2006) and Culnan (1986), to collect reliable data and significant effect to research result, the chosen articles should be cited from the other researchs more than 30 times. For especially, table 2.1 presents the articles that highest cited timesfrom 1996 to 2012. A total of 35 documents recorded at least 30 citations since their articles were published.

Table 1. Summary of the document resource

No	Authors (Year)	Journal	Total Citations
1	Baloglu, S (1999)	Annals of tourism research	416
2	Beerli, A (2004)	Annals of tourism research	290
3	Gallarza, MG (2002)	Annals of tourism research	283
4	ChenChingFu (2007)	Tourism Mangement	241
5	Pike, S (2002)	Tourism Mangement	212
6	Kim, H (2003)	Annals of tourism research	150
7	MacKay, KJ (1997)	Annals of tourism research	139
8	Beerli, A (2) (2004)	Tourism Mangement	134
9	Choi, S (2007)	Tourism Mangement	112
10	Lee, CK (2005)	Annals of tourism research	109
11	Baloglu, S (2) (2001)	Tourism Mangement	104
12	Hosany, S (2006)	Journal of Bussiness Research	98
13	BarrosoCastro (2007)	Tourism Mangement	92
14	Hailin, Q (2011)	Tourism Mangement	78
15	Trauer, B (2005)	Tourism Mangement	74
16	PrayagGirish (2012)	Journal of Travel Research	73
17	ChiaChristina (2008)	Tourism Mangement	69
18	Chalip, L (2003)	Journal of Sport Mangement	69
19	Oppermann, M (1996)	Tourism Mangement	62
20	Stepchenkova, S (2008)	Tourism Mangement	55
21	Prebensen (2007)	Tourism Mangement	53
22	NadeauJohn (2008)	Annals of tourism research	51
23	Selby, M (1996)	Tourism Mangement	51
24	LeeTsungHung (2009)	Leisure Sciences	50
25	Martin, H (2008)	Tourism Mangement	50
26	Choi, W (1999)	Tourism Mangement	44
27	Frias, D (2008)	Tourism Mangement	43
28	Stepchenkova, S (2) (2006)	Tourism Mangement	42
29	Hsu, C (2004)	Tourism Mangement	39
30	Assaker, G (2011)	Tourism Mangement	37
31	Prayag, G (2009)	Journal of Travel & Tourism Marketing	37
32	Govers, R (2007)	Annals of tourism research	37
33	Chon, K (1992)	Annals of tourism research	36
34	Frost, W (2006)	Tourism Mangement	35
35	BigneAlcaniz (2009)	Tourism Mangement	34

Factor Analysis: According to McCain (1990), the documents in a specialized research area developed and referenced ideas base on previous documents in same research area. In other words, they citedresearchs in the same field that share their research findings or research frameworks. On the other hand, Morris and Van der Veer Martens (2008) defined that "A self-organized network of researchers who tend to study the same research topics, attend the same conferences, read and cite each other's research papers and publish in the same research journals". Therefore, the studies belong to same factor after using factor analysis are based on similar research theories

orresearch area (Nerur *et al*., 2008). Factor analysis used in authors co-citation is a method applied to reduce the number of data generated by factor loadings from articles topic. To be consistent with criterion of co-citation analysis, only studies with factor loadings greater than ±0.5 were comprised in a same factor (Mehmet *et al*., 2015).

Multidimensional Scaling (MDS): Multidimensional scaling (MDS) in authors co-citation is a data reduction method that use tooutline a map describing similarities or dissimilarities between author groups (Wilkinson, 2002).For especially, multidimensional scaling was apply to generate the relationship between the authors by defining the dimensions that present the differences or similarities between the variables. This analysis was realized by using the ALSCAL algorithm of the Statistical Package for the Social Sciencessoftware (SPSS 18).

DISCUSSION

Result of Co-citation analysis: In present study, the top 35 highest cited documents were selected and built a co-citation matrix. By using amount of co-citations collected, for each document pair, a 35x35 unit co-citation matrix was established which base on the 35 most cited documents. In the study of McCain (1990), to avoid missing data of the diagonal, the three documents has highest number of co-citations combined and divided into two. The final result of co-citation matrix was run as input data for the factor analysis and multidimensional scaling.

Result of of factor analysis

Authors	Component				
	1	2	3	4	5
Nadeau John	.871				
Stepchenkova S	.859				
Frias D	.858				
Stepchenkova S2	.855				
Govers R	.840				
Choi S	.802				
Prebensen	.642				
Lee CK	.599				
Trauer B	.570				
Chen Ching Fu		.943			
Chia Christina		.905			
Barroso Castro		.885			
PrayagG		.869			
Bigne Alcaniz		.857			
PrayagGirish		.838			
LeeTsungHung		.825			
Assaker G		.726			
Martin H		.694			
Selby M			-.967		
MacKayKJ			-.828		
Baloglu S2			-.792		
Kim H			-.684		
Oppermann M			-.640		
Choi W			-.594		
Gallarza MG			-.573		
Pike S			-.564		
Chon K				-.754	
Chalip L				-.736	
Frost W				-.664	
Hsu C				.615	
BeerliA2					-.604
HosanyS					-.602
Variance explained	12.960	7.949	2.718	2.429	1.041

Total variance explained: 84.678%
Papers with loadings ≥ ±0.5 are shown

Table 2 shows the result of factor analysis. Five factors have accumulative explanation higher than 60% (84.678%).

Therefore, we can conclude that the data follow with the criteria. Following, purified items, this study explains that the measurement of the research variables is reliable and suitable for present research. Factor 1 includes five items that represent authors group who focus on perceptual and cognitive of destination image. Especially, this factor illustrated the effect of information on tourist's experiences about a destination image thought social network or media network. According to Beerli & Martín (2004), most of previous tourism studies confirmed the formation of destination image are based on attitude theory. In other words, destination image was developed from attitudes of travelers through affect (the experience of travelers about a tourism destination), cognition (the knowledge of travelers about a tourism destination) and behavior (the intention to visit a tourism destination) (Pike & Ryan, 2004). These relationships have also been verified in the tourism literature. After nearly three decades of research on its measure and meaning, these relationships have also been verified in the tourism literature (Balogu, 2001). Consequently, these dimensions can be applied for depth understanding of the destination image in current research. Factor 2 represents destination image model articles with both the relationship between destination image with marketing tourism and the effects of destination image on tourist perceptions as well as development of destination image conceptual model. Stepchenkova & Mills (2010) asserted that destination image model has been constructed from 1970s by John Hunt, Edward Mayo and Clare Gunn. However, the relationship between the dimensions of destination image is still supplement application value to be suitable with in different time. Factor 3 includes six items that focus on destination image review papers as formation and development process of destination image research. In tourism research development, destination image has become one of the most topic in the tourism literature (Pike, 2002). Nowadays, researchers are provided ample reference material resources of destination image literature.

Factor 4 contain most of papers that investigate the role of destination image in sport event media. In the recent years, the number of sport events are increased quickly, tourism investors developed these sport events marketing strategies as tourism destination for sharing market benifit (Grix, 2012). Some of previous studies explore the role of a sport event in modifying a tourism destination image of a local (Richards & Wilson, 2004). Besides, some of studies comparing pre–images and post-images that based on traveler experiences (Ekin, & Utku, 2009). Factor 5 was named heritage tourism and destination image. Nowadays, with heritage tourism development over the world, there has been increasing interest in how historic destinations or cultural destinations that create attractive images of a destination in traveler perception (Frost, 2006).

Result of Multidimensional Scaling (MDS): Fig. 2 debrided the map of conceptual structure of Destination Image Theory as two-dimensional scales. The relationship of 21 articles in the map asserted that these articles were cited more than 30 times in the same studies. There are five article groups for destination image academic foundation network. The articles belong to the same group have same research area. Therefore, there is interconnection or considerable commonality between them (Nerur *et al*., 2008). Factor 1 and factor 2 have highest and biggest factor loading value group. Thus, in the destination image research area, most of articles focus on perceptual and

cognitive of traveler about destination image as well as destination image model development.

Figure 2. Conceptual structure of Destination Image Theory. Stress value is 0.0324. Proportion of variance (RSQ) is 0.91752.

Derived Stimulus Configuration
Euclidean distance model
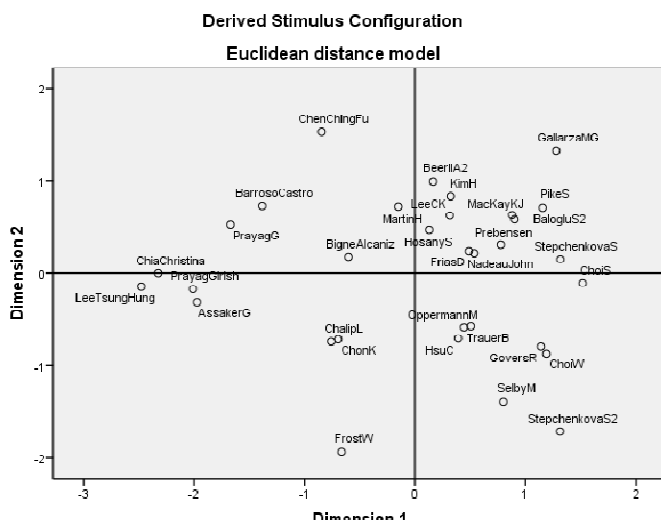
Conclusions

Destination image is a popular study in the tourism literature nowadays (Gallarza, Saura, & Calderón García, 2002). In the Tourism Marketing area, Tasci and Gartner (2007) assert important role of destination image in introducing image of a destination to tourists and influencing the final behavioral intention as well as destination choice (Chen and Tsai, 2007). The main purpose of this study was to explore and map academic foundation of destination image related to tourism industry. Most of documents are published in leading tourism journals ranked by Web of Science. Therefore, the findings of this research contribute to manage and identify development trends, theoretical as well as impractical perspective of destination image literature. For especially, a co-citation analyses was conducted by include 35 papers published on 7 leading journals in tourism research from 1996 to 2012. Especially, our review provided significantly findings for academic research in tourism field. First, most of articles are cited from tourism academic journals with highly h-index such as Tourism Management (20 articles) and Annals of Tourism Research (9 articles). The h-index is measured by citation impact of the publications of a scholar (Jorge, 2005). Therefore, this study explored and concluded the relationships between highly cited articles and works in leading scholarly journals.

Second, based on collected articles, a growing number of studies has been published which focus on perceptual and cognitive of destination image. These results are similar to previous studies. In the review of destination image analysis, Pike (2002) examined that over half of the papers in research data measured the perceptions of a destination tourism. Furthermore, many previous research has asserted that destination image is a multidimensional concept that combine both cognitive and affective components (Baloglu & Brinberg, 1997; Gartner, 1993). In other words, a number of hospitality and tourism researchers have examined the motivation why people choose a tourism destination as well as travel purchase behavior of travelers and emphasized the image of tourism destination and the traveler's perception of an attitude toward a

tourist destination (Chon, 1990). Besides, the main reviewed documents confirmed the extend research dimensions of destination image conceptual framework. The development of destination image model to support to researchers in understanding of the image role in applying to tourism destination and choose appropriate methodologies for examining the destination image construct. From a practical perspective, destination image model provides useful and tangible network that are able to help tourism planners and destination managers (Martina, 2002). Finally, this study contributes directions for future tourism research that based on our review of the destination image theory. In summary, the findings of this study support for researchers in in-depth understanding of development of destination image model in tourism field and making directions to select research orientation.

Limitation and Future Research

First, the reviewed documents in this study were selected from leading tourism journals. Therefore, the representative data can reasonably for research purpose that is relevant to destination image in tourism. However, there is only 35 highest cited documents that collected from 7 journals. Thus, the result of co citation analysis have missed some documents published on the other journals. Second, the research method of our current study was limited to a document co-citation analysis. In the future research, the author co-citation analysisand journal co-citation analysis should be conducted to provide general insight into research network of destination image in tourism field.

REFERENCES

Assaker, G., Vinzi, V. E., & O'Connor, P. 2011. Examining the effect of novelty seeking, satisfaction, and destination image on tourists' return pattern: A two factor, non-linear latent growth model. *Tourism Management*, 32(4), 890-901.

Baloglu, S. and Mangaloglu, M. 2001. Tourism destination images of Turkey, Egypt, Greece, and Italy as perceived by US-based tour operators and travel agents. Tourism management, 22(1), 1-9.

Baloglu, S. and McCleary, K. W. 1999. A model of destination image formation. *Annals of tourism research,* 26(4), 868-897.

Beerli, A. and Martin, J. D. 2004. Factors influencing destination image. *Annals of tourism research,* 31(3), 657-681.

Beerli, A. and Martín, J. D. 2004. Tourists' characteristics and the perceived image of tourist destinations: a quantitative analysis—a case study of Lanzarote, Spain. Tourism management, 25(5), 623-636.

Castro, C. B., Armario, E. M. and Ruiz, D. M. 2007. The influence of market heterogeneity on the relationship between a destination's image and tourists' future behaviour. Tourism Management, 28(1), 175-187.

Chen, C. F., & Tsai, D. 2007. How destination image and evaluative factors affect behavioral intentions?. *Tourism management,* 28(4), 1115-1122.

Chi, C. G. Q. and Qu, H. 2008. Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. Tourism management, 29(4), 624-636.

Choi, S., Lehto, X. Y., & Morrison, A. M. 2007. Destination image representation on the web: Content analysis of Macau travel related websites. *Tourism Management,* 28(1), 118-129.

Choi, W. M., Chan, A. and Wu, J. 1999. A qualitative and quantitative assessment of Hong Kong's image as a tourist destination. *Tourism management*, 20(3), 361-365.

Chon, K. S. 1992. Self-image/destination image congruity. Annals of Tourism Research, 19(2), 360-363.

Frias, D. M., Rodriguez, M. A., & Castañeda, J. A. 2008. Internet vs. travel agencies on pre-visit destination image formation: An information processing view. Tourism Management, 29(1), 163-179.

Gallarza, M. G., Saura, I. G., & García, H. C. 2002. Destination image: Towards a conceptual framework. *Annals of tourism research,* 29(1), 56-78.

Govers, R., Go, F. M. and Kumar, K. 2007. Virtual destination image a new measurement approach. Annals of Tourism Research, 34(4), 977-997.

Hosany, S., Ekinci, Y. and Uysal, M. 2006. Destination image and destination personality: An application of branding theories to tourism places. *Journal of business research,* 59(5), 638-642.

Hsu, C. H., Wolfe, K., & Kang, S. K. 2004. Image assessment for a destination with limited comparative advantages. *Tourism Management*, 25(1), 121-126.

Kim, H., & Richardson, S. L. 2003. Motion picture impacts on destination images. *Annals of tourism research*, 30(1), 216-237.

Lee, C. K., Lee, Y. K., & Lee, B. 2005. Korea's destination image formed by the 2002 World Cup. Annals of tourism research, 32(4), 839-858.

MacKay, K. J., & Fesenmaier, D. R. 1997. Pictorial element of destination in image formation. *Annals of Tourism research,* 24(3), 537-565.

Nadeau, J., Heslop, L., O'Reilly, N., & Luk, P. 2008. Destination in a country image context. *Annals of tourism Research,* 35(1), 84-106.

Oppermann, M. 1996. Convention destination images: analysis of association meeting planners' perceptions. *Tourism management,* 17(3), 175-182.

Pike, S. 2002. Destination image analysis—a review of 142 papers from 1973 to 2000. Tourism management, 23(5), 541-549.

Prayag, G., & Ryan, C. 2012. Antecedents of tourists' loyalty to Mauritius The role and influence of destination image, place attachment, personal involvement, and satisfaction. *Journal of Travel Research*, 51(3), 342-356.

Prebensen, N. K. 2007. Exploring tourists' images of a distant destination.Tourism management, 28(3), 747-756.

Qu, H., Kim, L. H., & Im, H. H. 2011. A model of destination branding: Integrating the concepts of the branding and destination image. Tourism Management, 32(3), 465-476.

San Martín, H., & Del Bosque, I. A. R. 2008. Exploring the cognitive–affective nature of destination image and the role of psychological factors in its formation. Tourism Management, 29(2), 263-277.

Selby, M., & Morgan, N. J. 1996. Reconstruing place image: A case study of its role in destination market research. Tourism Management, 17(4), 287-294.

Stepchenkova, S., & Morrison, A. M. 2006. The destination image of Russia: From the online induced perspective. Tourism Management, 27(5), 943-956.

Stepchenkova, S., & Morrison, A. M. 2008. Russia' s destination image among American pleasure travelers: Revisiting Echtner and Ritchie. Tourism Management, 29(3), 548-560.

Trauer, B., & Ryan, C. 2005. Destination image, romance and place experience—an application of intimacy theory in tourism. Tourism Management, 26(4), 481-491.

Xing, X., & Chalip, L. 2006. Effects of hosting a sport event on destination brand: A test of co-branding and match-up models. Sport Management Review,9(1), 49-78.

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