

Investigating the Impacts of Place Atmosphere on Place Attachment and Loyalty: The Mediation Effects of Place Image

Yu-Ling Chang

Ming Chuan University, Taiwan

E-Mail: changyuling3841@gmail.com

Chih-Yung Wang

Ming Chuan University, Taiwan

E-Mail: cyw@mail.mcu.edu.tw

Yu-Hsuan Peng

Ming Chuan University, Taiwan

E-Mail: lnng62@gmail.com

ABSTRACT

This study examines the effects of place atmosphere on place attachment and loyalty, considering the mediating role of place image. This study employs a structured questionnaire methodology, dividing the instrument into five sections: place atmosphere, place attachment, cognitive image, affective image, and loyalty, as the basis for questionnaire design. The measurement of each unit within the questionnaire adopts a Likert five-point scale, with 258 valid questionnaires collected from coffee shop customers. The analysis encompassed descriptive statistics, reliability and validity assessments, goodness-of-fit, and hypothesis testing. The empirical findings revealed the following: (1) Place atmosphere positively influences place attachment. (2) Place attachment positively affects place image. (3) Place image had a positive impact on loyalty. (4) Place image acted as a full mediator in the relationship. Furthermore, the study findings reveal that place attachment does not directly impact loyalty, and place image acts as a complete mediator. This differs from the commonly perceived outcomes; hence, managers should emphasize the establishment's image creation.

Keywords: Place atmosphere, Place attachment, Place image, Loyalty

INTRODUCTION

In an increasingly competitive industry with an abundance of choices, consumers may be swayed by the ambiance or atmosphere of a business, creating distinct differences among stores (de Farias et al., 2014). A harmonious store atmosphere can elicit consumer preferences and further enhance satisfaction and revisit intentions (Garaus, 2017), as it produces stimuli leading to approach or avoidance responses (Robert & John, 1982), making the design of the environmental atmosphere essential for businesses.

The environmental atmosphere directly impacts the identification and dependency factors of place attachment (Strzelecka et al., 2017; Yoshida et al., 2021), and through the psychological attachment between the audience and the place, it can significantly improve the audience's loyalty (Yoshida et al., 2021). When individuals are delighted with their experience of a place, they develop an attachment and are more likely to visit again, fostering a sense of closeness (Alexandris et al., 2006; George & George, 2004; J. Zhang et al., 2019).

Place image and place attachment share a conceptual foundation as both are attitudinal structures with cognitive and affective components (Byon & Zhang, 2010; Kaplanidou et al., 2012; Prayag & Ryan, 2012; Ramkissoon et al., 2013), influencing consumer loyalty, and are vital determinants of place loyalty (J. Zhang et al., 2019). While the effect of the environment on tourism (Vada et al., 2019) and retail (Calvo-Porrall & Lévy-Mangin, 2021; Garaus, 2017) has been well-studied, there is a gap in research on coffee shops and restaurants where consumers experience atmosphere over time.

According to experiential marketing theory, consumer experience can stimulate appeal and motivation through sensory, emotional, cognitive, and behavioral factors (H. Lee et al., 2010; Schmitt, 1999). If consumers repeatedly have positive experiences, they develop strong identification and dependency (Oliver, 1999). Thus, the atmosphere may influence place attachment and image, typically including cognitive and affective images. However, the extent to which each image affects loyalty varies (Stylidis et al., 2020). Place attachment and image affect each other, with place image being a prerequisite for place attachment (Chen et al., 2013) and experientially developed place attachment being an essential factor in emotional perception, which can change place image (Silva et al., 2013).

In summary, this research undertakes a questionnaire within the intensely competitive coffee shop sector from the viewpoint of consumers, exploring the association between place atmosphere, attachment, image, and loyalty. The main issues addressed are the impact of place atmosphere on place attachment, the mediating role of place image between attachment and loyalty, and the effect of place attachment and image on loyalty.

LITERATURE REVIEW

Place Atmosphere

The store atmosphere is the interplay of intangible and tangible elements, encompassing all feelings and thoughts from past knowledge, expectations, and experiences (Hoffman & Turley, 2002). It consists of various sensory factors that influence subsequent customer behavior (Calvo-Porrall & Lévy-Mangin, 2021).

J. Baker et al. (1994) conceptualize the store atmosphere as a composite construct comprising ambient elements such as temperature and music, design elements about the store's layout, and social elements encompassing the behaviors of staff and customers.

Turley and Milliman (2000) identified five factors characterizing the store environment: the external environment, general interior, store layout, design, merchandising spots, and human variables. Lam (2001) noted that the store environment includes internal and external aspects, merchandise layout, and elements like music or lighting. Roggeveen et al. (2020) integrate place atmosphere with sensory stimulation experiences, dividing it into design, internal ambiance, social factors, and trialability. Calvo-Porrall and Lévy-Mangin (2021) divided the atmosphere in the context of store environment studies into the external environment, internal environment, merchandise layout, in-store personnel, and crowding. Synthesizing the studies above, this research will employ 'external environment,' 'internal atmosphere,' and 'social factors' as the three elements for measurement dimensions.

Place Attachment

Williams et al. (1992) define place attachment as the emotional bonds formed through accumulative material and social experiences at a place. Hidalgo and Hernandez (2001) define place attachment as the emotional bond between people and specific places they reside in or visit. Loureiro (2019) defines it as the emotional connection between an individual and a place.

Ramkissoon et al. (2013) conceptualize place attachment into four dimensions: dependence, identity, influence, and social bonding. Loureiro (2019) categorized place attachment into three elements: social bonding, place identity, and place dependence. Some researchers have categorized place attachment into place dependence and place identity (Kyle et al., 2003; T. H. Lee & Shen, 2013). This research will focus on 'place dependence' and 'place identity' as measurement dimensions.

Place Image

Baloglu and Brinberg (1997) contend that image is a highly subjective concept based on individuals' feelings or thoughts about a place. Chen (2018) defines image as the beliefs, ideas, and impressions people hold about a particular place or destination. Bigne et al. (2001) point out that since consumers' vacation choices are often based on the destination's image rather than an understanding of reality, the image is a commonly used

framework in studying tourist consumer behavior and marketing research. Jiang et al. (2017) indicate that destination image is the aggregate of an individual's beliefs, ideas, and impressions about a specific environment.

Russell and Snodgrass (1987) believe that place-image develops during the travel experience. Garaus (2017) introduced a conceptual framework in the tourism domain, positing that image includes three interrelated components: cognitive, affective, and conative. In addition to cognitive and affective images, place images include an overall image that combines cognitive and affective dimensions (Huang et al., 2015; Kim et al., 2019). This study will use 'affective image' and 'cognitive image' as the measurement dimensions.

Loyalty

Oliver (1999) describes loyalty as a consumer's intention to repurchase in the future. Baker and Crompton (2000) define loyalty as a "commitment to a particular destination." Petrick (2004) sees loyalty as the repeated patronage of a company's products or services over time. According to Hernández-Lobato et al. (2006), loyalty is a positive attitude toward a good or service that results in beneficial repeat behavior and recommendations to others. Prayag and Ryan (2012) regard the extent of place loyalty as a vital indicator of a destination's success. Huang et al. (2015) operationalize loyalty as an individual's intent to revisit a destination or event.

At the operational level, the intention to revisit and recommendations to others are the most common methods of measuring visitor loyalty (Alcañiz et al., 2009; Hung & Petrick, 2012). Prayag and Ryan (2012)) assert that one measures loyalty by the intention to revisit or by the positive appraisals one shares with others. H. Zhang et al. (2014) categorized loyalty into three types: attitudinal loyalty, behavioral loyalty, and composite loyalty, which combines the first two. Ispas et al. (2021) discuss tourist loyalty as categorized into mountains, rural, urban, and coastal destinations. This study will adopt 'attitudinal loyalty' and 'behavioral loyalty' as the measurement dimensions.

RESEARCH METHODOLOGY

Research Hypotheses

Relationship between Place Atmosphere and Place Attachment

Baker et al. (1994) categorized the atmosphere of a store's environment into ambient factors (such as temperature, scent, sound, and lighting), design factors (including color, materials, fixtures, and layout), and social factors, which pertain to the behavior of employees and other consumers. Further studies have substantiated that the environmental atmosphere positively influences place attachment. For instance, research by Yoshida et al. (2021) on stadiums revealed a significant positive correlation between the

environmental atmosphere and place attachment. Similarly, Raymond et al. (2010) found that the atmosphere enhances spectators' emotional attachment to a place. Social interaction studies by Pretty et al. (2003) indicated that social connections with others are the most consistent and significant source of emotional attachment to a place. Brocato et al. (2015) note that the quality of service at a place positively influences identification with and dependence on that place. Additionally, Loureiro (2019) demonstrated in their museum study that atmospheric elements (such as design and lighting) could enhance place identity through authenticity. Based on these findings, the following hypothesis is proposed:

H1: Place atmosphere significantly positively influences place attachment.

Relationship between Place Attachment and Place Image

Stylidis et al. (2020) bifurcated the image into cognitive and affective images. Previous research by Stylidis (2018) on tourism development suggested that individuals closer to a place tend to develop more favorable impressions of it. Rollero and De Piccoli (2010) found in their research on Italy's image that strong emotional ties to a place enhance cognitive evaluations of it. For repeat visitors, a solid attachment to a place leads to a more positive perception of its physical qualities, meaning that place attachment can positively influence the image of a place. This synthesis of research leads to the following hypothesis:

H2: Place attachment has a significant positive effect on place image.

Relationship between Place Attachment and Loyalty

In examining the relationship between place attachment and loyalty, research by Park et al. (2006) suggests that the goal of creating place attachment is to develop enduring relationships with customers. Subsequent studies by Park et al. (2010) indicate that individuals with a solid emotional attachment are likelier to maintain their relationship with the brand, implying that a higher degree of emotional attachment increases loyalty. T. H. Lee and Shen (2013) state that the greater the attachment of leisure enthusiasts to a specific location, the stronger their intention to revisit it. Brocato et al. (2015) point out that place attachment has a positive and significant relationship with customers, providing positive word-of-mouth and noticeably reducing their intention to switch, thereby increasing loyalty. From these findings, the following hypothesis is proposed:

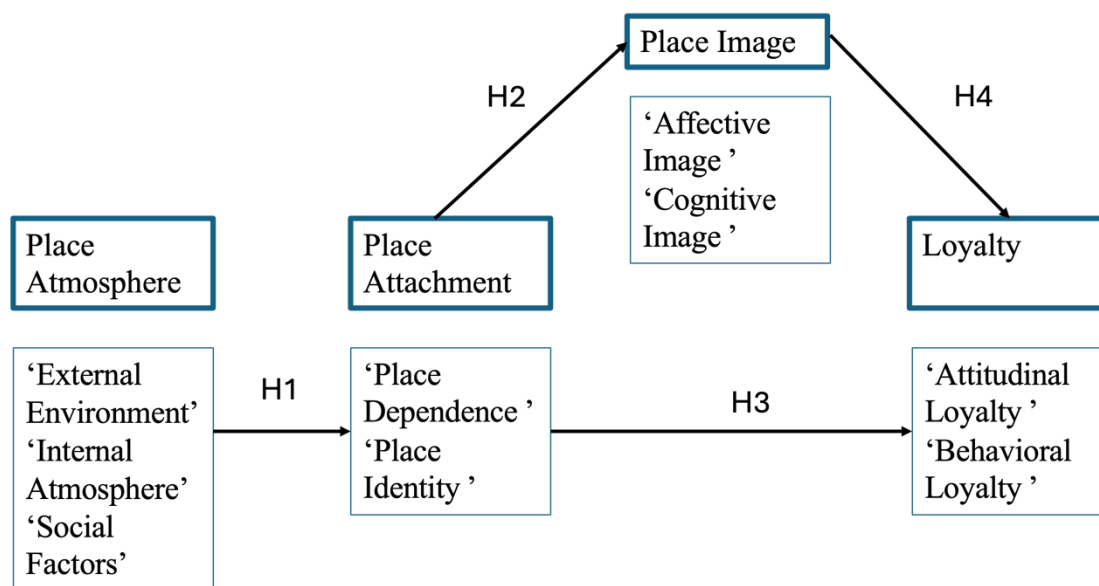
H3: Place attachment has a significant positive effect on loyalty.

Relationship between Place Image and Loyalty

In their investigation into place attachment and loyalty, Stylidis et al. (2020) differentiated loyalty into behavioral and attitudinal aspects, which encompass emotional word-of-mouth among tourists (Patwardhan et al., 2020) and the desire to revisit a sports venue (Chen et al., 2013). These elements and additional research confirm a positive association between image and loyalty. For instance, Bigne et al. (2001) found a significant positive correlation between overall image and the intention to recommend in a study on tourists on two Spanish islands. Choi et al. (2011) demonstrated that the image of a destination significantly affects revisit intentions in South Korea. H. Zhang et al. (2014) integrated findings from 66 studies, concluding that affective and cognitive components positively and significantly influence loyalty. From this body of evidence, the hypothesis is as follows:

H4: Place image has a significant positive impact on loyalty.

Figure1 Research Framework Figure



Construct Definition, Measurement, and Questionnaire Design

This study employs a structured questionnaire methodology, dividing the instrument into five sections: place atmosphere, place attachment, cognitive image, affective image, and loyalty, as the basis for questionnaire design. The measurement of each unit within the questionnaire adopts a Likert five-point scale.

Firstly, the research builds upon Baker et al. (1994) categorize the store environment into three variables for measurement dimensions: external environment, internal atmosphere, and social factors. The questionnaire design integrates scales from Baker et

al. (1994) and Calvo-Porrall and Lévy-Mangin (2021). Secondly, place attachment is measured based on the constructs of personal identification and dependency on the place, referencing Yoshida et al. (2021) and Loureiro (2019). Thirdly, the study divides the destination image into cognitive and affective images, informed by scales from Jiang et al. (2017), Chen (2018), and Styliadis et al. (2020). Finally, loyalty is bifurcated into attitudinal and behavioral loyalty, measured through scales from H. Zhang et al. (2014) and Brocato et al. (2015). The investigation focuses on coffee shops without specifying any brand.

EMPIRICAL RESULTS

Data Collection

Online surveys served as the primary data collection method for this study, which underwent data cleaning and descriptive statistical analysis. A total of 258 valid questionnaires were collected. Among the collected samples, females outnumbered males significantly, with most respondents aged between 21 and 30, accounting for 55.8%. Most participants held a college or associate degree (54.3%), and sentiment-oriented individuals constituted the majority (59.3%). Regarding occupation, students accounted for the highest proportion at 45.3%, while those with an average family background comprised 50.4% of the sample.

Regarding consumer behavior variables, most consumers visited the coffee shop with friends (53.1%) or alone (21.7%), with 62.4% spending between 150 and 500 NT dollars per visit. The consumption interval ranged from one month to half a year, and more than half (56.6%) stayed in the shop for over an hour during each visit. Notably, 45.7% of customers gave the shop's environment the most importance, then the products (19.8%), location (15.5%), service (10.5%), and memories (5%). Only 3.5% of consumers prioritized price. The mean scores of the survey measurement items range from 3.32 to 4.16, with standard deviations between 0.690 and 0.947. The item analysis results show that all items in the survey possess good discriminative power. ($p < 0.001$).

Reliability and Validity Testing

Confirmatory factor analysis revealed that the factor loading values of the sample measurement indicators were all greater than 0.61 (0.611~0.853). The average variance extracted (AVE) values of the measurement constructs were all above 0.5 (0.543~0.627). The composite reliability values (0.912~0.929) were also higher than the level suggested by Tabachnick et al. (2013) (> 0.6), which means that all measurement constructs have good convergent validity and composite reliability.

Furthermore, the AVE values of any two constructs were more significant than the squared correlation coefficient values between these two constructs, except for the pairs of place image loyalty and place attachment loyalty. This observation aligns with the

criteria of Fornell and Larcker (1981) and demonstrates good discriminant validity among all pairs of constructs. Detailed information is in Table 1.

Table 1 *Convergent Validity and Discriminant Validity*

AVE	(A)	(B)	(C)	(D)	composite reliability
place atmosphere (A)	0.543	0.389	0.481	0.368	0.922
place attachment (B)	0.624	0.567	0.605	0.630	0.929
place image (C)	0.694	0.778	0.627	0.634	0.922
loyalty (D)	0.607	0.794	0.796	0.599	0.912

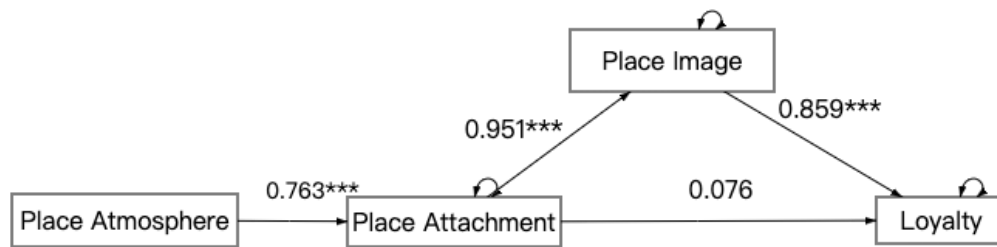
Notes. The diagonal values represent the AVE. The lower left triangle contains the correlations between constructs, and the upper right triangle contains the squared correlations.

Linear Causal Model Testing

The study conducted a linear causal model test. The correlation coefficients for each measured construct ranged from 0.368 to 0.796, indicating moderate to high correlations. With a maximum skewness coefficient of $0.11 < 3$ and a maximum kurtosis coefficient of $2.33 < 8$, the normality test and extreme value assessment show that the data has good symmetry and does not exhibit excessive concentration or dispersion. The Variance Inflation Factor (VIF) is less than 10, indicating no multicollinearity issues among the measured constructs. The sample data approximates a normal distribution, making it suitable for linear causal model analysis. The empirical results indicated a good model fit after adjustments ($MI > 4$), with $CMIN/DF = 1.280$ ($p = 0.179$), $GFI = 0.978 > 0.9$, $CFI = 0.997 > 0.9$, $RMSEA = 0.033 < 0.05$, and $SRMR = 0.024$. The regression coefficients showed that place atmosphere has a significant positive effect on place attachment ($\beta = 1.174$, $t = 12.075$), place attachment on place image ($\beta = 0.452$, $t = 14.698$), and place image on loyalty ($\beta = 1.476$, $t = 2.569$), supporting hypotheses H1, H2, and H4. However, place attachment's effect on loyalty was insignificant ($\beta = 0.062$, $t = 0.234$), not supporting hypothesis H3. Further details are in Table 2, with model validation results illustrated in Figure 2.

Table 1 *Hypothesis Test*

hypothesis	path	Path coefficient	t-value	Test result
H1	place atmosphere → place attachment	0.763	12.075***	Support
H2	place attachment → place image	0.951	14.698***	Support
H3	place attachment → loyalty	0.076	0.234	Not Support
H4	place image → loyalty	0.859	2.569***	Support

Figure 2 *Linear Causal Model Testing*

Full Mediation Effect of Place Image

In the mediation analysis within the study, Hypothesis H3 did not receive empirical support, suggesting that place attachment does not exert a considerable direct positive influence on loyalty. However, Hypothesis H4 was supported, suggesting that place image fully mediates the relationship between place attachment and loyalty. Furthermore, the study employs a competitive model to verify the full mediation effect of place images. It introduces a direct effect of place atmosphere on loyalty to the original research model. Empirical results maintain the validity of Hypotheses H1, H2, and H4. The new data regarding the direct effect of place atmosphere on loyalty shows a model fit of $CMIN/DF=1.450(p=0.092)$, $GFI=0.976>0.9$, $CFI=0.995>0.9$, $RMSEA=0.042<0.05$ and $SRMR=0.0256$. However, this effect is insignificant ($\beta=-0.003$, $t=-0.032$, $p=0.975$), indicating that place image acts as a full mediator.

Partial Mediation Effect of Place Attachment

This study employs a competitive model to verify the partial mediation effect by adding a direct impact of place atmosphere on place image to the original model. The empirical findings indicate a good fit for the model ($CMIN/DF=1.059$, $p=0.388$, $GFI=0.983>0.9$, $CFI=0.999>0.9$, $RMSEA=0.015<0.05$ and $SRMR=0.0185$) and significant positive direct effects of place atmosphere on place image ($\beta=0.052$, $t=2.922$, $p=0.003$), thus confirming a partial mediation role of place attachment.

CONCLUSION

The hypothesis testing results indicate that the ambiance of coffee shops has a positive and significant impact on place attachment (H1 supported). Among these, the interior environment (factor loading = 0.83) and social factors (factor loading = 0.87) have a more significant influence on consumers compared to the external environment (factor loading = 0.66), with the impact of the external environment being non-significant. Therefore, businesses should emphasize the store's interior design, service, and online information when planning their establishments.

Furthermore, place attachment significantly and positively affects place image (H2 supported). Notably, the study findings reveal that place attachment does not directly impact loyalty (H3 not supported), and place image acts as a complete mediator (H4 supported). This differs from the commonly perceived outcomes; hence, managers should emphasize the establishment's image creation.

REFERENCE

- Alcañiz, E. B., García, I. S., & Blas, S. S. (2009). The functional-psychological continuum in the cognitive image of a destination: A confirmatory analysis. *Tourism Management, 30*(5), 715-723. <http://doi.org/10.1016/j.tourman.2008.10.020>
- Alexandris, K., Kouthouris, C., & Meligdis, A. (2006). Increasing customers' loyalty in a skiing resort: The contribution of place attachment and service quality. *International Journal of Contemporary Hospitality Management, 18*(5), 414-425. <http://doi.org/10.1108/09596110610673547>
- Baker, D. A., & Crompton, J. L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research, 27*(3), 785-804. [http://doi.org/10.1016/S0160-7383\(99\)00108-5](http://doi.org/10.1016/S0160-7383(99)00108-5)
- Baker, J., Grewal, D., & Parasuraman, A. (1994). The influence of store environment on quality inferences and store image. *Journal of the Academy of Marketing Science, 22*(4), 328-339. <http://doi.org/10.1177/0092070394224002>
- Baloglu, S., & Brinberg, D. (1997). Affective images of tourism destinations. *Journal of Travel Research, 35*(4), 11-15. <http://doi.org/10.1177/004728759703500402>
- Bigne, J. E., Sanchez, M. I., & Sanchez, J. (2001). Tourism image, evaluation variables and after purchase behaviour: Inter-relationship. *Tourism Management, 22*(6), 607-616. [http://doi.org/10.1016/S0261-5177\(01\)00035-8](http://doi.org/10.1016/S0261-5177(01)00035-8)
- Brocato, E. D., Baker, J., & Voorhees, C. M. (2015). Creating consumer attachment to retail service firms through sense of place. *Journal of the Academy of Marketing Science, 43*, 200-220. <http://doi.org/10.1007/s11747-014-0381-x>
- Byon, K. K., & Zhang, J. J. (2010). Development of a scale measuring destination image. *Marketing Intelligence & Planning, 28*(4), 508-532. <http://doi.org/10.1108/02634501011053595>
- Calvo-Porrá, C., & Lévy-Mangin, J.-P. (2021). Examining the influence of store environment in hedonic and utilitarian shopping. *Administrative Sciences, 11*(1), 6. <http://doi.org/10.3390/admsci11010006>
- Chen, C.-Y. (2018). Influence of celebrity involvement on place attachment: Role of destination image in film tourism. *Asia Pacific Journal of Tourism Research, 23*(1), 1-14. <http://doi.org/10.1080/10941665.2017.1394888>

- Chen, C.-Y., Lin, Y.-H., & Chiu, H.-T. (2013). Development and psychometric evaluation of sport stadium atmosphere scale in spectator sport events. *European Sport Management Quarterly*, 13(2), 200-215.
<http://doi.org/10.1080/16184742.2012.759602>
- Choi, J. G., Tkachenko, T., & Sil, S. (2011). On the destination image of Korea by Russian tourists. *Tourism Management*, 32(1), 193-194.
<http://doi.org/10.1016/j.tourman.2009.12.002>
- de Farias, S. A., Aguiar, E. C., & Melo, F. V. S. (2014). Store atmospherics and experiential marketing: A conceptual framework and research propositions for an extraordinary customer experience. *International Business Research*, 7(2), 87.
<http://doi.org/10.5539/ibr.v7n2p87>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. In: Sage Publications Sage CA: Los Angeles, CA.
- Garaus, M. (2017). Atmospheric harmony in the retail environment: Its influence on store satisfaction and re-patronage intention. *Journal of Consumer Behaviour*, 16(3), 265-278. <http://doi.org/10.1002/cb.1626>
- George, B. P., & George, B. P. (2004). Past visits and the intention to revisit a destination: Place attachment as the mediator and novelty seeking as the moderator. *Journal of Tourism Studies*, 15(2), 51-66.
<http://doi.org/10.1016/j.tourman.2006.04.024>
- Hernández-Lobato, L., Solis-Radilla, M. M., Moliner-Tena, M. A., & Sánchez-García, J. (2006). Tourism destination image, satisfaction and loyalty: A study in Ixtapa-Zihuatanejo, Mexico. *Tourism geographies*, 8(4), 343-358.
<http://doi.org/10.1080/14616680600922039>
- Hidalgo, M. C., & Hernandez, B. (2001). Place attachment: Conceptual and empirical questions. *Journal of Environmental Psychology*, 21(3), 273-281.
<http://doi.org/10.1006/jevp.2001.0221>
- Hoffman, K. D., & Turley, L. W. (2002). Atmospherics, service encounters and consumer decision making: An integrative perspective. *Journal of Marketing Theory and Practice*, 10(3), 33-47.
<http://doi.org/10.1080/10696679.2002.11501918>
- Huang, H., Lunhua Mao, L., Wang, J., & Zhang, J. J. (2015). Assessing the relationships between image congruence, tourist satisfaction and intention to revisit in marathon tourism: the Shanghai International Marathon. *International Journal of Sports Marketing and Sponsorship*, 16(4), 46-66.
<http://doi.org/10.1108/IJSMS-16-04-2015-B005>
- Hung, K., & Petrick, J. F. (2012). Testing the effects of congruity, travel constraints,

- and self-efficacy on travel intentions: An alternative decision-making model. *Tourism Management*, 33(4), 855-867.
<http://doi.org/10.1016/j.tourman.2011.09.007>
- Ispas, A., Untaru, E.-N., Candrea, A.-N., & Han, H. (2021). Impact of place identity and place dependence on satisfaction and loyalty toward Black Sea coastal destinations: The role of visitation frequency. *Coastal Management*, 49(3), 250-274. <http://doi.org/10.1080/08920753.2021.1899914>
- Jiang, Y., Ramkissoon, H., Mavondo, F. T., & Feng, S. (2017). Authenticity: The link between destination image and place attachment. *Journal of Hospitality Marketing & Management*, 26(2), 105-124.
<http://doi.org/10.1080/19368623.2016.1185988>
- Kaplanidou, K., Jordan, J. S., Funk, D., & Ridinger, L. L. (2012). Recurring sport events and destination image perceptions: Impact on active sport tourist behavioral intentions and place attachment. *Journal of Sport Management*, 26(3), 237-248. <http://doi.org/10.1123/jism.26.3.237>
- Kim, S., Styliadis, D., & Oh, M. (2019). Is perception of destination image stable or does it fluctuate? A measurement of three points in time. *International Journal of Tourism Research*, 21(4), 447-461. <http://doi.org/10.1002/jtr.2273>
- Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2003). An examination of the relationship between leisure activity involvement and place attachment among hikers along the Appalachian Trail. *Journal of Leisure Research*, 35(3), 249-273. <http://doi.org/10.1080/00222216.2003.11949993>
- Lam, S. Y. (2001). The effects of store environment on shopping behaviors: A critical review. *ACR North American Advances*.
- Lee, H., Chen, Y., Chen, P., Gu, P., Hsu, Y., Wang, S., Liu, W., Tsai, C., Sheu, S., & Chiang, P. (2010). Evidence and solution of over-RESET problem for HfO_x based resistive memory with sub-ns switching speed and high endurance. *2010 International Electron Devices Meeting*, San Francisco, CA, USA, 2010, pp. 19.7.1-19.7.4, <http://doi.org/10.1109/IEDM.2010.5703395>.
- Lee, T. H., & Shen, Y. L. (2013). The influence of leisure involvement and place attachment on destination loyalty: Evidence from recreationists walking their dogs in urban parks. *Journal of Environmental Psychology*, 33, 76-85.
<http://doi.org/10.1016/j.jenvp.2012.11.002>
- Loureiro, S. M. C. (2019). Exploring the role of atmospheric cues and authentic pride on perceived authenticity assessment of museum visitors. *International Journal of Tourism Research*, 21(4), 413-426. <http://doi.org/10.1002/jtr.2265>
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(4_suppl1), 33-44. <http://doi.org/10.2307/1252099>

- Park, C. W., MacInnis, D. J., Priester, J., Eisingerich, A. B., & Iacobucci, D. (2010). Brand attachment and brand attitude strength: Conceptual and empirical differentiation of two critical brand equity drivers. *Journal of Marketing*, 74(6), 1-17. <http://doi.org/10.1509/jmkg.74.6.1>
- Park, C. W., MacInnis, D. J., & Priester, J. R. (2006). Beyond attitudes: Attachment and consumer behavior. *Seoul National Journal*, 12(2), 3-36. <http://doi.org/10.1086/644610>
- Patwardhan, V., Ribeiro, M. A., Payini, V., Woosnam, K. M., Mallya, J., & Gopalakrishnan, P. (2020). Visitors' place attachment and destination loyalty: Examining the roles of emotional solidarity and perceived safety. *Journal of travel research*, 59(1), 3-21. <http://doi.org/10.1177/0047287518824157>
- Petrick, J. F. (2004). First timers' and repeaters' perceived value. *Journal of Travel Research*, 43(1), 29-38. <http://doi.org/10.1177/0047287504265509>
- 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. <http://doi.org/10.1177/0047287511410321>
- Pretty, G. H., Chipuer, H. M., & Bramston, P. (2003). Sense of place amongst adolescents and adults in two rural Australian towns: The discriminating features of place attachment, sense of community and place dependence in relation to place identity. *Journal of Environmental Psychology*, 23(3), 273-287. [http://doi.org/10.1016/S0272-4944\(02\)00079-8](http://doi.org/10.1016/S0272-4944(02)00079-8)
- Ramkissoon, H., Smith, L. D. G., & Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: A structural equation modelling approach. *Tourism Management*, 36, 552-566. <http://doi.org/10.1016/j.tourman.2012.09.003>
- Raymond, C. M., Brown, G., & Weber, D. (2010). The measurement of place attachment: Personal, community, and environmental connections. *Journal of Environmental Psychology*, 30(4), 422-434. <https://doi.org/10.1016/j.jenvp.2010.08.002>
- Robert, D., & John, R. (1982). Store atmosphere: an environmental psychology approach. *Journal of Retailing*, 58(1), 34-57. [https://doi.org/10.1016/S0022-4359\(03\)00006-X](https://doi.org/10.1016/S0022-4359(03)00006-X)
- Roggeveen, A. L., Grewal, D., & Schweiger, E. B. (2020). The DAST framework for retail atmospherics: The impact of in-and out-of-store retail journey touchpoints on the customer experience. *Journal of Retailing*, 96(1), 128-137. <https://doi.org/10.1016/j.jretai.2019.11.002>
- Rollero, C., & De Piccoli, N. (2010). Place attachment, identification and environment

- perception: An empirical study. *Journal of Environmental Psychology*, 30(2), 198-205. <https://doi.org/10.1016/j.jenvp.2009.12.003>
- Russell, J. A., & Snodgrass, J. (1987). Emotion and the environment. *Handbook of environmental psychology*, 1(1), 245-281.
<https://doi.org/10.1146/annurev.ps.33.020182.003251>
- Schmitt, R. (1999). *Coligações eleitorais e sistema partidário no Brasil*
- Silva, C., Kastenholz, E., & Abrantes, J. L. (2013). Place-attachment, destination image and impacts of tourism in mountain destinations. *Anatolia*, 24(1), 17-29.
<https://doi.org/10.1080/13032917.2012.762312>
- Strzelecka, M., Boley, B. B., & Woosnam, K. M. (2017). Place attachment and empowerment: Do residents need to be attached to be empowered? *Annals of Tourism Research*, 66, 61-73. <https://doi.org/10.1016/j.annals.2017.06.002>
- Stylidis, D. (2018). Place attachment, perception of place and residents' support for tourism development. *Tourism Planning & Development*, 15(2), 188-210.
<https://doi.org/10.1080/21568316.2017.1318775>
- Stylidis, D., Woosnam, K. M., Ivkov, M., & Kim, S. S. (2020). Destination loyalty explained through place attachment, destination familiarity and destination image. *International Journal of Tourism Research*, 22(5), 604-616.
<https://doi.org/10.1002/jtr.2359>
- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2013). *Using multivariate statistics* (Vol. 6). Pearson Boston, MA.
- Turley, L. W., & Milliman, R. E. (2000). Atmospheric effects on shopping behavior: a review of the experimental evidence. *Journal of Business Research*, 49(2), 193-211. [https://doi.org/10.1016/0006-8993\(89\)90931-1](https://doi.org/10.1016/0006-8993(89)90931-1)
- Vada, S., Prentice, C., & Hsiao, A. (2019). The influence of tourism experience and well-being on place attachment. *Journal of Retailing and Consumer Services*, 47, 322-330. <https://doi.org/10.1016/j.jretconser.2018.12.007>
- Williams, D. R., Patterson, M. E., Roggenbuck, J. W., & Watson, A. E. (1992). Beyond the commodity metaphor: Examining emotional and symbolic attachment to place. *Leisure Sciences*, 14(1), 29-46.
<https://doi.org/10.1080/01490409209513155>
- Yoshida, M., Gordon, B. S., Nakazawa, M., & Yoshioka, N. (2021). An Integrated Model for Stadium Atmosphere and Stadium Attachment: An Empirical Test in Two Baseball Stadium Contexts. *Sport Marketing Quarterly*, 30(2).
- Zhang, H., Fu, X., Cai, L. A., & Lu, L. (2014). Destination image and tourist loyalty: A meta-analysis. *Tourism Management*, 40, 213-223.
<https://doi.org/10.1016/j.tourman.2013.06.006>
- Zhang, J., Byon, K. K., Williams, A. S., & Huang, H. (2019). Effects of the event and

its destination image on sport tourists' attachment and loyalty to a destination: the cases of the Chinese and US Formula One Grand Prix. *Asia Pacific Journal of Tourism Research*, 24(12), 1169-1185.

<https://doi.org/10.1080/10941665.2019.1667837>

Dr. Yu-Ling Chang (Corresponding author) is currently an Assistant Professor in the Department of Administration of MingChun University. He earned his PhD in Administration (DBA) from the National ChengChi University, the research work is focused on marketing issues and brand strategy, in which articles have been published in various journals.

Dr. Chih-Yung Wang is currently an Associate Professor in the Department of Administration of MingChun University. He earned his PhD in Administration (DBA) from the National Sun Yate-sen University, the research work is focused on financial and economical issues, in which articles have been published in various journals.

Yu-Hsuan Peng graduated from MingChun University with a Master's degree in Business Administration (MBA).