Cite as: Woosnam, K., Aleshinloye, K., Ribeiro, M., Stylidis, D., Jiang, J. & Erul, E. (2018). Social determinants of place attachment at a World Heritage Site. *Tourism Management*, In Press.

Social determinants of place attachment at a World Heritage Site

Woosnam, K., Aleshinloye, K., Ribeiro, M., Stylidis, D., Jiang, J. & Erul, E.

Abstract: While the work on place attachment is extensive, it neglects to focus on residents' and tourists' perspectives of the construct concurrently. Additionally, the role that social factors play in forging attachment to place is lacking within the tourism literature. This work focuses on whether residents' (n = 469) and tourists' (n = 461) degree of place attachment at the Osun Oshogbo Cultural Festival (Nigeria) were significantly different. Examining the psychometric properties of the place attachment scale in an international context was a second aim. The final purpose of this work was to assess whether social factors (i.e., frequency of interaction and emotional closeness) between residents and tourists could explain the resulting CFA place attachment factors. MANOVA results revealed tourists demonstrated a significantly higher degree of attachment. Each social determinant predicted the attachment factors for both samples, with the two independent variables explaining higher degrees of variance among residents.

1. INTRODUCTION

The impact that places have on our lives is quite powerful—from memories of our past, to the present experiences we undertake, to the stories we will forge into the future. Attachment individuals feel about such places though is not unique to those who reside within a particular locale (Anton & Lawrence, 2016; von Wirth, Gret-Regamey, Moser, & Stauffacher, 2016); tourists are drawn to irreplaceable locations just as well, based on the meanings they ascribe to a place (Loureiro, 2014; Prayag & Ryan, 2012; Tsai, 2012). Oftentimes, what binds individuals to a place are the shared customs, beliefs, religious practices, and intangible cultural heritage that are manifested in a geographical space (World Tourism Organization, 2012). These practices make a space a "place" as Tuan (1977) contends. Implicit within this idea is the role that social factors play in contributing to individuals' degree of attachment to places.

Place attachment can be thought of as the formulation of positive emotional bonds between individuals and their socio-physical environment (Hidalgo & Hernandez, 2001; Stedman, 2002). Derived from early research (Proshansky, Fabian, & Kaminoff, 1983; Relph, 1976; Stokols & Shumaker, 1981; Tuan, 1977) conducted primarily within human geography and social psychology, Williams and Vaske (2003) formulated a widely-accepted two-dimensional (i.e., place identity and place dependence) scale that measures the place attachment construct. This two-dimensional approach allows for distinguishing between affective (i.e., place identity) and instrumental (i.e., place dependence) bonds individuals have with the environment. Place identity comprising a person's self-definition, is a result of a system of particular values, attitudes, and beliefs about the physical world (Proshansky, et al., 1983). Place dependence, in a basic sense, is considered an attachment to a place for functional reasons (Stokols & Shumaker, 1981); that few other places meet individuals' demands for a particular activity. In her review of the place attachment literature over the last 40 years, Lewicka (2011) indicates that the scale Williams and Vaske (2003) developed is "by far the most popular across different countries" (p. 220).

While the work concerning place attachment has been well established within the tourism literature (see Kaján, 2014; Nunkoo & Gursoy, 2012; Ram, Bjork, Weidenfeld, 2016; Wang & Chen, 2015 for recent reviews), its development and application within a festival context (where arguably, few better contexts exist providing opportunities for residents and tourists to interact and potentially forge place attachment) is rather scant (Brown, Smith, & Assaker, 2016; Lee, Kyle, & Scott, 2012; McClinchey & Carmichael, 2010), typically focused on visitors' (i.e., tourists') development of the construct. Furthermore, collective considerations of both residents' and tourists' development of an attachment to a unique festival place is also limited as Derrett (2003) indicates. It goes without saying then that work highlighting the potential importance of social determinants of place attachments among both residents and tourists is missing within the travel and tourism and festival literature. This is somewhat surprising given Lewicka (2011) claims social predictors have demonstrated (albeit they have rarely been considered) a positive relationship with place attachment. As such, the purpose of the current work is threefold. The initial aim is to consider how residents' and tourists' perceptions of place attachment at a

cultural heritage festival (housed at a World Heritage Site in Nigeria) may potentially differ. Assessing the factor structure of the Place Attachment Scale (Williams & Vaske, 2003) through confirmatory factor analysis is a second purpose of the work. Ultimately, the main focus of this paper is to examine how social determinants (i.e., degree of interaction and emotional closeness between residents and tourists) can serve to explain each group's attachment to the place.

2. LITERATURE REVIEW

2.1 Social interaction and relationships between residents and tourists

Positive social interaction between residents and tourists has been drawing the attention of tourism scholars for several years (see Akis, Peristiannis, & Warner, 1996; Bimonte & Punzo, 2016; Chen, 2016; Loi & Pearce, 2015; Pizam, Uriely, & Reichel, 2000; Prentice, Witt, & Wydenbach, 1994; Teye, Sonmez, & Sirakaya, 2002; Wall & Mathieson, 2006; Woosnam & Norman, 2010; Woosnam, Norman, & Ying, 2009; Yu & Lee, 2014). Prentice et al. (1994) found that positive social interactions with residents (e.g., talking with residents or participating in social activities with residents) strengthened the bond between individuals. In a similar vein, positive interactions may provide greater understanding of others from different cultural backgrounds, leading to greater mutual understanding (Allport, 1954).

Previous studies have also found that negative attitudes, misconceptions, hostile behavior, stereotypes of others and prejudices can be reduced through positive social interactions between residents and tourists (Amir, 1969; Steiner & Reisenger, 2004). For instance, Wearing and Wearing (2001) claimed that positive social interactions may reduce the classification of the self and others. Similarly, Pizam et al. (2000) found that positive interactions between residents and tourists can change the latter's perspectives from negative to positive. More intimate degrees of interaction between residents and tourists serve to reduce barriers between tourists and residents which can foster greater understanding between individuals, cross-cultural learning, mitigation of negative tourism impacts of tourism, and increased sustainable tourism (Goeldner & Ritchie, 2004; Gunn & Var, 2002; Pearce, 1989; Wall & Mathieson, 2006). Lack of social interaction can also have negative economic implications for local communities.

Ultimately, researchers have admitted that positive social interaction is crucial for the success of sustainable tourism (Benckendorff & Lund-Durlacher, 2013; Bimonte & Punzo, 2016; Chen, 2016; Loi & Pearce, 2015; Wall & Mathieson, 2006; Yu & Lee, 2014).

In order to increase the interaction between residents and tourists, previous researchers state that examining the degrees of emotions is necessary (McIntosh, 1988, Wearing & Wearing, 2001). Similarly, Pizam et al. (2000) found interactions between residents and tourists to be positively correlated with feelings they have toward one another. Hence, Woosnam et al. (2009) were among the first to examine residents' feelings towards tourists through their interactions in the context of tourism. Following this, Woosnam and Norman (2010) first exposed the direct positive relationship between interaction and emotional solidarity (as measured through the *Emotional Solidarity Scale*). Numerous tourism studies have followed indicating interaction serves as a significant predictor of residents' emotional solidarity or emotional closeness with tourists (Kirillova, Lehto, & Cai, 2015; Prentice, Witt, & Wydenbach, 1994; Reisinger & Turner, 2003; Woosnam, 2011a; 2011b; 2012; Woosnam & Aleshinloye, 2013; Yu & Lee, 2014).

The degree of interaction and the relationship between residents and tourists have each been measured numerous ways. For instance, "how many days per week residents interact with tourists" (Teye et al., 2002), and "how often residents talked with tourists during summer" (Akis et al., 1996) are two ways in which interaction has been measured. In addition to these, Woosnam and Norman (2010) measured the degree of interaction through five items focusing on frequency of interaction during different times of the year. To date, one of the primary means to measure the relationship between residents and tourists is through the *Emotional Solidarity Scale* (Woosnam & Norman, 2010). A modified version of the Inclusion-of-Other-Self (IOS) Scale (a 7-point visually-displayed scale focusing on extent of emotional closeness between residents and tourists) based on the work of Woosnam (2013) is another way to assess the relationship. However, the social interaction and relationships between residents and tourists rarely ever considers the role of place (i.e., place attachment). Some studies claim that these

individuals (i.e., residents and tourists) can develop and improve the emotional bonds with places by building positive interactions (see Proshansky, 1978; Williams, Patterson, Roggenbuck, & Watson, 1992).

2.2 Place attachment in tourism

Place attachment commonly refers to the affective bond developed between people and places (Hidalgo & Hernandez, 2001), resulting from peoples' cumulative experiences with both physical and social aspects of an environment (Low & Altman, 1992; Tuan, 1977). In the tourism literature, place attachment has been explored in a variety of contexts including residents' attitudes towards tourism development (Choi & Murray, 2010; Draper, Woosnam & Norman, 2009; Nunkoo & Gursoy, 2012; Ramkissoon, Weiler & Smith, 2012), perceptions and image of place (Stylidis, 2017), emotional solidarity between residents and tourists (Woosnam, Aleshinloye, Strzelecka, & Erul, 2016), tourist experiences, attitudes and behaviors (Prayag & Ryan, 2012; Tsai, 2012) and authenticity of major tourist attractions (Ram, Bjorg & Weidenfeld, 2016). Several approaches have been adopted in the measurement of place attachment, ranging from single-item constructs related to residents' length of residency at a given place (Snaith and Haley, 1999), to more complex multi-dimensional approaches, comprising two (Kyle, Graefe, Manning & Bacon, 2004), three (Tsai, 2012) or even four dimensions (Ramkissoon et al., 2012).

The two dimensions of place attachment, which are included in each of the aforementioned studies, are *place identity* and *place dependence*. In her review of 40 years of research on place attachment, Lewicka (2011) comments that this two-dimensional operationalization is by far the most-widely used within the literature. Place identity refers to the identification of a person with a place, leading to affective bonds and feelings towards it (Kyle et al., 2004; Proshansky et al., 1983; Ramkissoon, Smith & Weiler, 2013), while place dependence is defined as the functional attachment to a place, and how well a place functions in supporting a person's goals/needs (Stokols & Shumacker, 1981; Yuksel, Yuksel & Bilim, 2010). Two other dimensions of place attachment, that is to say, affective attachment (Ramkissoon et al., 2012; Tsai, 2012; Yuksel et al., 2010) and social bonding (Ramkissoon et al., 2012), have received limited attention thus far and the debate whether they assist in best explaining place

attachment is still ongoing. Drawing on the vast majority of previous studies conducted both within and beyond the tourism context, place attachment is conceptualized here comprising a place identity component and a place dependence component.

Researchers have also explored potential antecedents of place attachment including tourist involvement (i.e., attraction, self-expression, centrality to lifestyle) and destination image (Alexandris, Kouthouris & Meligdis, 2006; Gross & Brown, 2008; Kyle et al., 2004; Prayag & Ryan, 2012; Tsai, 2012). Despite recent developments in the topic, it becomes evident from the aforementioned review of the tourism and festival literature that gaps still exist in relation to the potential importance of social determinants—such as the degree of interaction and emotional closeness between residents and tourists (see Woosnam, 2013)—to place attachment. To fill in this gap, the current study aims to a) explore whether residents' and tourists' perceptions of place attachment at a cultural heritage festival (housed within a World Heritage Site) potentially differ, b) confirm the two-dimensional structure (i.e., *place identity* and *place dependence*) of place attachment within an international context, and c) use social determinants to explain each group's levels and nature of attachment to the place.

3. METHODS

This study was undertaken at the Osun Oshogbo Sacred Grove within Nigeria. While the Grove has hosted local residents and visitors for the last five centuries (Omojola, 2011), it was only recently (2005) dedicated by UNESCO as World Heritage Site. One of the most popular times to be at the Grove is during the two-week Osun Oshogbo Festival which occurs in August each year. Few better opportunities are afforded to residents and tourists to congregate within the sacred forest and Oshogbo to celebrate the Yoruba traditions and offer prayers and petitions to the Osun Goddess of Fertility (Probst, 2011). It is a widely-held belief among the Yoruba that Osun dwells within the Sacred Grove and the Oshogbo River; that those visiting are blessed with increased fertility.

Oshogbo residents living adjacent to the Sacred Grove and tourists to Oshogbo who were visiting the WHS were intercepted on-site during the 2014 festival and asked to participate in the survey.

Individuals completed a self-administered survey instrument on-site during the course of the two-week festival. For residents, a multi-cluster sampling scheme was followed whereby random wards were selected and then a random home was initially selected to visit. From there, every 5th home was visited. The research team asked that only one individual (at least 18 years of age) from the home complete the instrument, who had the most recent birthday. Of the 628 residents contacted, 147 declined participating (a 76.6% acceptance rate). Of the 481 questionnaires that were distributed, 470 were completed (a completion rate of 97.7%); yielding an effective response rate of 74.8%.

Tourists were intercepted at the Festival as well as other key tourist locations throughout Oshogbo and were asked to participate. As individuals were intercepted, they were asked whether they were visitors to Oshogbo. If they responded in the affirmative, they were then asked if: 1) they were visiting for the festival and 2) whether they would be willing to participate in the survey. Only one participant per each group contacted was asked to complete the instrument. Six hundred fifty-five tourists were intercepted and asked to participate. Of those, 175 declined the invitation (a 73.2% acceptance rate). Of the 480 accepted questionnaires, 461 were completed (a completion rate of 96.0%); yielding an effective response rate of 70.4%.

Three primary measures were utilized within this study for each resident and tourist sample. The first of which was the Place Attachment Scale (Williams & Vaske, 2003) that included 12 items. Results over time (see Lewicka, 2011) have demonstrated two distinctive factors: *Place Identity* and *Place Dependence*. Two other measures pertaining to the social relationship between residents and tourists at the Grove were used. Those were the single-item of the frequency of interaction (asked on a 1-7 scale, where 1=not at all; 7=all of the time) (Woosnam & Norman, 2010) and the newly-modified Inclusion-of-Other-Self (IOS) Scale (a 7-point visually-displayed scale focusing on the degree of emotional closeness between residents and tourists) based on the work of Woosnam (2013). See Figure 1 below that provides an example of the scale from the residents' perspective. MANOVA was conducted to examine mean differences between residents' and tourists' place attachment. To confirm the factor structure of the Place Attachment Scale, CFA was employed through EQS v6.3. Finally, multiple linear regression analysis was

used to determine whether interaction and the IOS Scale significantly explained both residents' and tourists' place attachment at the Osun Oshogbo Sacred Grove.

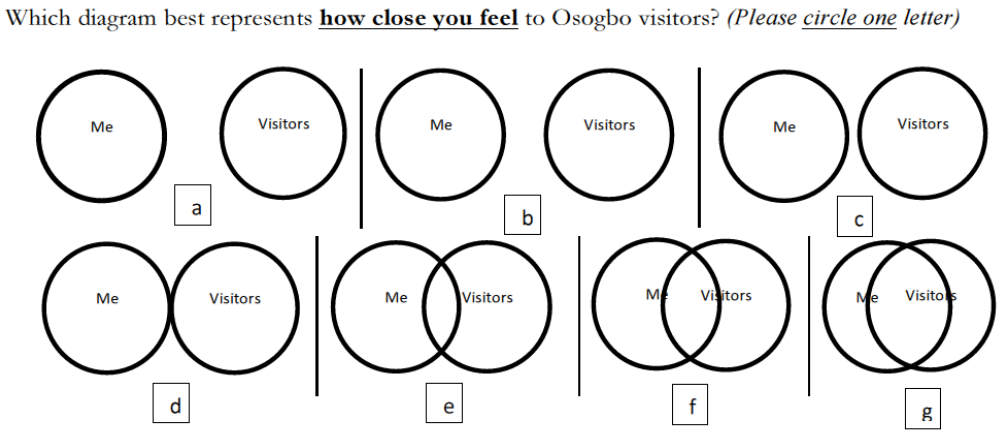

Figure 1. Newly-modified Inclusion-of-Other-in-Self (IOS) Scale from Residents' Perspective

4. RESULTS

Women comprised nearly half of each sample (residents = 50.9%; tourists = 46.2%). Tourists were slightly older ($M_{tourists}$ = 32.9 years; $M_{residents}$ = 30.6 years) and more educated (50.7% tourists versus 48.3% residents with at least a four-year degree). Most of the surveyed residents (61.7%) and tourists (62.5%) had been to the festivals at least once before, and the former ($M_{residents}$ = 2.72) indicated interacting slightly less with tourists than did the latter ($M_{tourists}$ = 3.29) with residents (as measured on a 7-point scale of 1 = never, to 7 = all of the time). In the way of emotional closeness (as measured through the newly-modified IOS Scale), residents (M = 3.01) indicated a significantly lower degree of closeness with tourists than did tourists (M = 4.56) with residents (considering a 7-point scale of 1 = no overlap and distant and 7 = greatest overlap from Figure 1).

Statistical differences in place attachment items were found among residents and tourists on all 12 items, Wilks's $\Lambda = 0.72$, $F(12,917) = 29.25$, $p < 0.001$. The multivariate η^2 based on Wilks's Λ was moderate, 0.28, indicating that 28% of multivariate variance of the 12 items is associated with either being a resident or tourist. As a follow-up to the MANOVA, ANOVAs were undertaken on each item. In an effort to control for Type 1 errors, and following Green and Salkind (2013) suggestions, each ANOVA (using the Bonferroni method) was tested at the 0.004 alpha level based on 12 dependent variables.

Overall, tourists reported a higher degree of place attachment than did residents on all 12 of the items. Each mean difference was highly significant ($p < 0.001$). Table 1 provides output for the MANOVA and its ANOVA results for each of the place attachment items across the two samples.

Table 1. *Differences*[a] *in Residents' and Tourists' Place Attachment Items*[b] *at the Osun Oshogbo Cultural Festival*

Place Attachment Item	Residents Mean	Tourists Mean	*F*	*p*
***Place Identity* (*PI*)**				
The Osun Oshogbo Cultural Festival (OOCF) is a part of me.	3.32	5.32	240.51	0.00
I identify strongly with the OOCF.	3.51	5.43	232.01	0.00
The OOCF is special to me.	3.44	5.51	271.96	0.00
I am attached to the OOCF.	3.24	5.33	263.61	0.00
Visiting the OOCF says a lot about me.	3.30	5.41	269.32	0.00
The OOCF means a lot to me.	3.33	5.57	307.56	0.00
***Place Dependence* (*PD*)**				
No festival compares to the OOCF.	3.56	5.59	248.67	0.00
Doing what I do at the OOCF is more important to me than doing it at any other place.	3.37	5.50	275.60	0.00
I would not substitute any other festival for doing the types of things I do at the OOCF.	3.34	5.44	276.42	0.00
The things I do at the OOCF I would enjoy doing just as much at a similar site.	3.60	5.24	150.42	0.00
The OOCF is the best place for what I like to do.	3.39	5.61	308.32	0.00
I get more satisfaction out of visiting the OOCF than any other festival.	3.44	5.55	262.10	0.00

[a] MANOVA model Wilks's $\Lambda = 0.72$, $F(12,917) = 29.25$, $p < 0.001$, $\eta^2 = 0.28$

[b] Items were rated on a 7-point scale, where 1 = *strongly disagree* and 7 = *strongly agree*.

Table 2. *CFA for Place Attachment among Osun Oshogbo Residents*[a] *and Tourists*[b]

	Residents		Tourists	
Factor and corresponding item	Standardized factor loading (*t* value[d])	MWA[e]	Standardized factor loading (*t* value[f])	MWA[g]
***Place Identity* (*PI*)**[c]		***0.97***		***0.96***
The OOCF means a lot to me.	0.93(47.62)		0.89(18.90)	
I am attached to the OOCF.	0.93(40.33)		0.91(25.51)	
The OOCF is special to me.	0.92(42.17)		0.91(20.13)	
I identify strongly with the OOCF.	0.91(41.57)		0.90(20.28)	
Visiting the OOCF says a lot about me.	0.91(40.16)		0.89(23.55)	
The Osun Oshogbo Cultural Festival (OOCF) is a part of me.	0.90(38.46)		0.90(22.20)	
***Place Dependence* (*PD*)**		***0.97***		***0.95***
The OOCF is the best place for what I like to do.	0.94(46.06)		0.90(20.93)	
I would not substitute any other festival for doing the types of things I do at the OOCF.	0.93(40.53)		0.91(21.68)	
Doing what I do at the OOCF is more important to me than doing it at any other place.	0.93(45.16)		0.91(21.52)	
I get more satisfaction out of visiting the OOCF than any other festival.	0.92(44.14)		0.90(20.93)	
No festival compares to the OOCF.	0.88(37.81)		0.92(20.01)	
The things I do at the OOCF I would enjoy doing just as much at a similar site.	0.86(34.37)		0.68(14.89)	

[a] Satorra-Bentler χ^2 (53, N = 470) = 123.09, $p < 0.001$, CFI = 0.99, RMSEA = 0.05
[b] Satorra-Bentler χ^2 (53, N = 461) = 143.30, $p < 0.001$, CFI = 0.97, RMSEA = 0.06
[c] Items were rated on a 7-point scale, where 1 = *strongly disagree* and 7 = *strongly agree*.
[d] All *t* tests were significant at $p < 0.001$.
[e] Maximal weighted alphas provided in EQS v6.3
[f] All *t* tests were significant at $p < 0.001$.
[g] Maximal weighted alphas provided in EQS v6.3

To confirm the factor structure of the Place Attachment Scale, a CFA was undertaken using EQS v6.3. Each resident and tourist measurement model demonstrated sound reliabilities as shown through the maximal weighted alphas (MWAs) exceeding 0.95. Convergent validities for each factors were also revealed through highly significant ($p < 0.001$) *t* values for each factor loading. Factor loadings were all high (i.e., exceeding 0.86) with one exception that was less than 0.70. However, this one loading exceeded the 0.50 threshold that Hair, et al. (2010) consider is acceptable. CFA results revealed identical measurement models for each sample with the two-factor structure (place identity and place dependence) as put forth by Williams and Vaske (2003). For residents, the Satorra-Bentler χ^2 (53, $N = 470$) = 123.09, $p < 0.001$, CFI = 0.99, RMSEA = 0.05. For tourists, Satorra-Bentler χ^2 (53, $N = 461$) = 143.30, $p < 0.001$, CFI = 0.97, RMSEA = 0.06.

Following the CFA for each sample, composite means were calculated for each place attachment factor. At that point, two separate multiple linear regression analyses were undertaken to determine whether interaction and degree of emotional closeness would significantly predict residents' and tourists' place attachment (Table 3). In so doing, multicollinearity was assessed and both tolerance and VIF were within acceptable ranges. For both samples, each of the social determinants were highly significant ($p < 0.001$), with emotional closeness serving to be a better predictor. Both interaction and emotional closeness for the resident sample explained a greater degree of variance in each of the place attachment models (i.e., place identity, $R^2 = 0.35$; place dependence, $R^2 = 0.37$) over the tourist sample (i.e., place identity, $R^2 = 0.24$; place dependence, $R^2 = 0.16$).

Table 3. *Multiple Regression Output for Sample*

Place Attachment[a,b] Models with Social Determinants	B	Beta(β)	*t*	tol[c]	VIF[d]
Residents					
Place Identity ($F = 126.30$, $p < 0.001$, $R^2 = 0.35$)					
Interaction[e]	.31	.29	7.26***	.85	1.18
Emotional Closeness (Inclusion-of-Other-in-Self Scale)[f]	.45	.41	10.17***	.85	1.18
Place Dependence ($F = 135.19$, $p < 0.001$, $R^2 = 0.37$)					
Interaction	.33	.32	7.87***	.85	1.18
Emotional Closeness (Inclusion-of-Other-in-Self Scale)	.45	.41	10.23***	.85	1.18
Tourists					
Place Identity ($F = 72.76$, $p < 0.001$, $R^2 = 0.24$)					
Interaction	.19	.21	4.77***	.89	1.13
Emotional Closeness (Inclusion-of-Other-in-Self Scale)	.37	.38	8.85***	.89	1.13
Place Dependence ($F = 44.58$, $p < 0.001$, $R^2 = 0.16$)					
Interaction	.13	.14	3.17***	.89	1.13
Emotional Closeness (Inclusion-of-Other-in-Self Scale)	.31	.33	7.33***	.89	1.13

[a] Each item was asked on a 7-point scale where 1 = *strongly disagree* and 7 = *strongly agree*.
[b] Each item was positively worded
[c] Tolerance is a measure that assesses the degree of multi-collinearity in the model. It is defined as 1 minus the squared multiple correlation of the variable with all other independent variables in the regression equation.
[d] VIF or variance inflation factor is another measure that assesses the degree of multi-collinearity in the model. VIF is defined as 1/tolerance; and is always greater than 1.
[e] Each item was asked on 7-point scale where 1 = *never* and 7 = *all of the time*
[f] Each item was presented as a series of venn diagrams on a 7-point scale (see Figure 1 above for response categories)
* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

5. DISCUSSION

Understanding place attachment is essential in planning for sustainable tourism development because of how tourism not only affects the appearance of local places but also the meanings of places and the connections that residents and tourists have with each other and the place. Tourism can either threaten or enhance special meanings ascribed by locals to these places (Manzo & Perkings, 2006). Given this, levels of attachment are likely to vary among residents celebrating and perpetuating their culture at festivals and those visitors who become more knowledgeable and engage in greater cross-cultural exchanges with locals at such special events.

This work was undertaken with the intent to examine whether perceptions of place attachment were different among residents and tourists. In so doing, the Osun Oshogbo Sacred Grove and the annual

festival served as the backdrop. In every instance (i.e., for all 12 place attachment items), tourists' level of attachment with the WHS and the accompanying festival was significantly higher ($p < 0.001$) than that of residents'. Looking closer at the items, it is apparent that the difference was not unique to either factor.

A secondary focus of this paper was to assess the factor structure of Williams and Vaske's (2003) Place Attachment Scale. Based on the measurement model established through CFA, results indicated the model fit the data nearly perfectly without having to include any error parameters or remove any of the items. Such results lend further support for the continued use of the measure in international contexts and provides further credence to Lewicka's (2011) notion that the measure is the most widely used to assess attachment in numerous settings. As such however, only measures of reliability were assessed in examining psychometric properties of the scale.

The final aim of the paper was to examine the role that degree of interaction and perceived emotional closeness between residents and tourists (as social determinants of the relationship) can serve in explaining each group's attachment to the place. Despite residents indicating a lower degree of interaction and emotional closeness with tourists, each of the antecedent variables explained a considerably higher degree of variance in place attachment. What this means is that for tourists, aspects of the relationship with residents do not contribute as much to the development of their attachment to the Osun Oshogbo Sacred Grove and the festival. This might be explained by the fact that such tourists are intentionally seeking the WHS and the festival for the functional purposes of receiving the blessing of increased fertility. Assessing motivations for attending the festival (Crompton & McKay, 1997) may shed greater light on this. With such findings, planners should consider addressing how to market the festival in such a way to focus on the social aspects for residents and the functional intentions for tourists.

For both models, emotional closeness (as measured through the newly-modified Inclusion-of-the-Other-in Self Scale) served to be a better predictor (as evidenced through the regression coefficients and accompanying *t*-values). This may speak to the fact that the way in which interaction was measured only assessed frequency of encounters and not more intimate degrees of the relationship, thereby

demonstrating emotional closeness to be a more appropriate measure in assessing the relationship. Subsequent work should consider utilizing measures of interaction that speak to the perceptions of how individuals interact (i.e., different forms of interaction) instead of frequency of interaction. Given only two measures served as predictors of place attachment, the effect sizes are slightly surprising and leave room for much future work to potentially add moderators of the relationship to the model. Such moderators would potentially contribute to explaining an increased degree of variance in place attachment as Nunkoo and Gursoy (2012) have demonstrated in comparable research focusing on residents' support for tourism.

5.1 Implications

Findings from this research show the applicability of place attachment dimensions for destinations in the context of events as shown by several scholars (e.g., Brown et al., 2016; Kirkup & Sutherland, 2015; Ouyang, Gursoy, & Sharma, 2017; Wickham & Kerstetter, 2000). From a theoretical perspective, emotional closeness and interaction are useful variables to explain both residents and visitors' degree of place attachment at a WHS. Furthermore, this study contributes to knowledge about how emotional closeness (as measured through the newly-modified Inclusion-of-the-Other-in Self Scale) and interaction with others contribute to both residents' and tourists' degree of place attachment in a specific context. However, the results also show that this relationship is stronger for tourists than residents. Such a finding is in line with the work by Ramkissoon (2015) and Woosnam, et al. (2016) that demonstrated the strength of tourists forming an emotional closeness with places based on the social interactions occurring in the destination. In essence, the more visitors interact and develop emotional closeness with one other and residents onsite, the more they are attached the places. As Ribeiro, Woosnam, Pinto, and Silva (2017) found, a strong degree of interaction and emotional closeness forged between residents and tourists can contribute to an enhanced degree of visitors' satisfaction and loyalty to a particular place.

Findings from this present study also have great implications for event planners/managers in marketing the Osun festival and the sustainability of the Sacred Grove. Residents having a lower level of attachment to the festival and the Grove in comparison with tourists is not farfetched because Oshogbo is a religiously sensitive town dominated by followers of Christianity and Islam. Few others living in the city practice traditional Yoruba teachings that are associated with the festival and the Grove. A healthy percentage of residents view the Osun Oshogbo Festival and its accompanying events as a means by which to practice idol worshipping and also perceive visitors in the same vein. That being said, many residents view the festival as a cultural event that serves to preserve natural attractions for future generations. The onus now lies with the event organizers, planners and stakeholders including the governments to better educate the populace on the importance of cultural and natural resources preservation and sustainability which the festival and the Osun Sacred Grove symbolizes. Of course, great care should be given to stress the importance of authenticity (e.g., performances, artifacts, food, etc.) when considering tourists' experiences as Ram, et al. (2016) and Ramkissoon (2015) have mentioned in the context of place attachment. The government can reinforce this assertion by including the teaching into the primary and secondary schools' curriculum throughout the Osun state and Nigeria overall. The 2005 UNESCO declaration of Osun Oshogbo Grove as a WHS has further boosted its importance and acceptability among residents but additional large-scale education programs should be developed and sustained to continually and positively change residents' perspectives.

No destination can survive without the patronage of tourists whether domestic or international. Residents should be encouraged to make tourists feel welcome by demonstrating and displaying positive attitudes that will improve the latter's experience. Regular symposia and trainings should be organized for residents having frequent face-to-face interactions with tourists such as taxi drivers, food vendors, goods and artifacts salespersons, storeowners and others. This can be done through the Ministry of Culture and Tourism in association with the different trade associations present throughout the community.

5.2 Limitations and future research

This is work is not without its limitations. To begin with, internal validity of the place attachment scale may be called into question. For instance, some items refer to the Osun Oshogbo Sacred Grove, whereas others speak to the festival. Despite it being nearly impossible to conceive of the festival without considering the Sacred Grove, the question remains as to whether it is the WHS or the festival to which people are drawn. Future work that examines place attachment in the context of festivals may consider adding items that speak to both the festival and the place to determine if latent measures arise from factor analysis. In a similar vein concerning psychometrics, other forms of validity such as construct validity (e.g., convergent and discriminant validity) were not assessed. In examining the mean scores for all 12 items within the place attachment, one must consider the potential for the items to be highly correlated. While we would expect this to be the case to some degree as items comprise the place attachment construct overall, are particular items making a unique contribution to each specific factor or should the scale be considered unidimensional?

Furthermore, the newly-modified IOS Scale should be subjected to greater psychometric testing as this is the first time it has been used in the existing format. To begin, various forms of reliability and validity should be assessed. For instance, predictive validity can be assessed in examining the correlation between the IOS Scale and various measures of the *Emotional Solidarity Scale* (Woosnam & Norman, 2010). Such progression of psychometric testing has been widely accepted for roughly the last four decades of social science research (e.g., Churchill, 1979).

Lastly, this research is limited in that only two measures of social interaction and relationships between residents and tourists were adopted to predict place attachment. Subsequent work should include additional predictors to improve the variance explained in place attachment, given the importance of place attachment of both residents and tourists in marketing festivals and hosting communities. The *Emotional Solidarity Scale* (Woosnam & Norman, 2010) is another readily available measure of social interaction and relationships between residents and tourists that has the potential to predict place attachment. For the unique setting of festivals, it is also meaningful to consider the effect of destination (i.e., hosting

community) image (e.g., Alexandris et al., 2006; Prayag & Ryan, 2012) and festival images (e.g., Huang, Li, & Cai, 2010; Wong, Wu, & Cheng, 2015) on residents' and tourists' place attachment. Perhaps the most pressing work along this line is to find the proper theory to guide the predication of place attachment. Once the theory building is achieved, the roles of social determinants and place-related predictors (whether they would be predictors, mediators, or moderators) in the model can be determined.

6. REFERENCES

Akis, S., Peristianis, N., & Warner, J. (1996). Residents' attitudes to tourism development: The case of Cyprus. *Tourism Management, 17*, 481-494.

Alexandris, K., Kouthouris, C., & Meligdis, A. (2006). Increasing customers' loyalty in a skiing resort. *International Journal of Contemporary Hospitality Management*, *18*(5), 414–425.

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison Wesley.

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*(5), 319–342.

Anton, C.E., & Lawrence, C. (2016). The relationship between place attachment, the theory of planned behavior and residents' response to place change. *Journal of Environmental Psychology*, *47*, 145-154.

Benckendorff, P., & Lund‐Durlacher, D. (Eds) (2013). *International cases in sustainable travel & tourism*. Oxford: Goodfellow Publishers.

Bimonte, S., & Punzo, L. F. (2016). Tourist development and host-guest interaction: An economic exchange theory. *Annals of Tourism Research, 58*, 128-139.

Brown, G., Smith, A., & Assaker, G. (2016). Revisiting the host city: An empirical examination of sport involvement, place attachment, event satisfaction and spectator intentions at the London Olympics. *Tourism Management, 55*, 160-172.

Chen, L. J. (2016). Intercultural interactions among different roles: A case study of an international volunteer tourism project in Shaanxi, China. *Current Issues in Tourism*, *19*(5), 458 – 476.

Choi, H. C., & Murray, I. (2010). Resident attitudes toward sustainable community tourism. *Journal of Sustainable Tourism*, *18*(4), 575-594.

Churchill Jr, G.A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, *16*, 64-73.

Crompton, J.L., & McKay, S.L. (1997). Motives of visitors attending festival events. *Annals of tourism research*, *24*(2), 425-439.

Draper, J., Woosnam, K., & Norman, W. (2009). Tourism use history: Exploring a new framework for understanding residents' attitudes toward tourism. *Journal of Travel Research*, *50*(1), 64-77.

Goeldner, C.R., & Ritchie, J.R.B. (2004). *Tourism: Principles, practices, philosophies* (9th ed.). Hoboken, NJ: John Wiley & Sons.

Green, S.B., & Salkind, N.J. (2013). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (7th Ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Gross, M., & Brown, G. (2008). An empirical structural model of tourists and places: Progressing involvement and place attachment into tourism. *Tourism Management*, *29*(6), 1141-1151.

Gunn, C.A., & Var, T. (2002). *Tourism Planning (4th ed.).* New York: Routledge.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2010). *Multivariate data analysis* (7th Ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Hidalgo, M.C., & Hernandez, B. (2001). Place attachment: Conceptual and empirical questions. *Journal of Environmental Psychology*, *21*(3), 273-281.

Huang, J. Z., Li, M., & Cai, L. A. (2010). A model of community-based festival image. *International Journal of hospitality management*, *29*(2), 254-260.

Kaján E. (2014). Community perceptions to place attachment and tourism development in Finnish Lapland, *Tourism Geographies*, *16*(3), 490-511.

Kirillova, K., Lehto, X., & Cai, L. (2015). Volunteer tourism and intercultural sensitivity: The role of interaction with host communities. *Journal of Travel & Tourism Marketing*, *32*(4), 382-400.

Kirkup, N., & Sutherland, M. (2015). Exploring the relationships between motivation, attachment and loyalty within sport event tourism. *Current Issues in Tourism*, *20*(1), 7-14.

Kyle, G., Graefe, A., Manning, R., & Bacon, J. (2004). Effects of place attachment on users' perceptions of social and environmental conditions in a natural setting. *Journal of Environmental Psychology*, *24*(2), 213-225.

Lee, J., Kyle, G., & Scott, D. (2012). The mediating effect of place attachment on the relationship between festival satisfaction and loyalty to the festival hosting destination. *Journal of Travel Research*, *51*(6), 754-767.

Lewicka, M. (2011). Place attachment: How far have we come in the last 40 years?. *Journal of Environmental Psychology*, *31*(3), 207-230.

Loi, K. I., & Pearce, P. L. (2015). Exploring perceived tensions arising from tourist behaviors in a Chinese context. *Journal of Travel & Tourism Marketing*, *32*(1-2), 65 – 79.

Loureiro, S. M. C. (2014). The role of the rural tourism experience economy in place attachment and behavioral intentions. *International Journal of Hospitality Management*, *40*, 1-9.

Low, S., & Altman, I. (1992). Place attachment: A conceptual Inquiry. In: I. Althman, & S. Low (Eds.), *Place attachment*. New York: Plenum.

McClinchey, K.A., & Carmichael, B.A. (2010). The role and meaning of place in cultural festival visitor experiences. In M. Morgan, P. Lugosi, and J.R.B. Ritchie (Eds.), *The tourism and leisure experience. Consumer and managerial perspectives* (pp. 59-80). Bristol, UK: Channel View Publications.

Manzo, L.C., & Perkins, D.D. (2006). Finding common ground: The importance of place attachment to community participation and planning. *Journal of Planning Literature*, *20*, 335-350.

Nunkoo, R., & Gursoy, D. (2012). Residents' support for tourism. An Identity Perspective. *Annals of Tourism Research*, *39*(1), 243–268

Omojola, B. (2011). Osun Osogbo: Power, song and performance in a Yoruba festival. *Ethnomusicology Forum*, *20*(1), 79-106.

Ouyang, Z., Gursoy, D., & Sharma, B. (2017). Role of trust, emotions and event attachment on residents' attitudes toward tourism. *Tourism Management, 63*, 426-438.

Pearce, D. (1989). *Tourist development* (2nd ed.). Harlow: Longman.

Pizam, A., Uriely, N., & Reichel, A. (2000). The intensity of tourist-host social relationship and its effects on satisfaction and change of attitudes: The case of working tourists in Israel. *Tourism Management, 21*, 395-406.

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*, *5*(3), 342-356.

Prentice, R. C., Witt, S. F., & Wydenbach, E. G. (1994). The endearment behavior of tourists through their interaction with the host community. *Tourism Management*, *15*, 117-125.

Probst, P. (2011). *Osogbo and the art of heritage*. Bloomington, IN: Indiana University Press.

Proshansky, H. M. (1978). The city and self-identity. *Environment & Behavior*, *10*, 147-169.

Proshansky, H.M., Fabian, A.K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, *3*(1), 57–83.

Ram, Y., Björk, P., & Weidenfeld, A. (2016). Authenticity and place attachment of major visitor attractions. *Tourism Management*, *52*, 110-122.

Ramkinssoon, H., Weiler, B., & Smith, G. (2012). Place attachment and pro-environmental behavior in national parks: the development of a conceptual framework. *Journal of Sustainable Tourism*, *20*(2), 257-276.

546 Ramkissoon, H. (2015). Authenticity, satisfaction, and place attachment: A conceptual framework for
547 cultural tourism in African island economies. *Development Southern Africa*, *32*(3), 292-302.
548 Ramkissoon, H., Smith, L.D.G., & Weiler, B. (2013). Testing the dimensionality of place attachment and
549 its relationships with place satisfaction and pro-environmental behaviours: A structural equation
550 modelling approach. *Tourism Management*, *36*, 552-566.
551 Reisinger, Y., & Turner, L. (2003). Cross-cultural behavior in tourism: Concepts and analysis. Woburn,
552 MA: Butterworth-Heinemann.
553 Relph, E. (1976). *Place and Placelessness*. London: Pion.
554 Ribeiro, M. A., Woosnam, K. M., Pinto, P., & Silva, J. A. (2017, in press). Tourists' destination loyalty
555 through emotional solidarity with residents: An integrative moderated mediation model. *Journal*
556 *of Travel Research*. doi:10.1177/0047287517699089
557 Snaith, T., & Haley, A. (1999). Residents opinions of tourism development in the historic city of York,
558 England. *Tourism Management*, *20*(5), 595-603.
559 Stedman, R. (2002). Toward a social psychology of place: Predicting behavior from place-based
560 cognitions, attitude, and identity. *Environment and Behavior*, *34*(5), 561-581.
561 Steiner, C. J., & Reisinger, Y. (2004). Enriching the tourist and host intercultural experience by
562 reconceptualising communication. *Journal of Tourism and Cultural Change*, *2*(2), 118–137.
563 Stokols, D., & Shumaker, S.A. (1981). *People and places: A transactional view of settings*. In J. Harvey
564 (Ed.), Cognition, Social behavior, and the Environment (pp. 441–488). Hillsdale, NJ: Erlbaum.
565 Stylidis, D. (2017, in press). Place attachment, perception of place and residents' support for tourism
566 development. *Tourism Planning & Development*. doi:10.1080/21568316.2017.1318775
567 Teye, V., Sonmez, S., & Sirakaya, E. (2002). Residents' attitudes toward tourism development. *Annals of*
568 *Tourism Research*, *29*, 668-688.
569 Tsai, S.P. (2012). Place attachment and tourism marketing: investigating international tourists in
570 Singapore. *International Journal of Tourism Research*, *14*(2), 139-152.

Tuan, Y. F. (1977). *Space and place: The perspective of experience*. Minneapolis, MN: University of Minnesota Press.

von Wirth, T., Gret-Regamey, A., Moser, C., Stauffacher, M. (2016). Exploring the influence of perceived urban change on residents' place attachment. *Journal of Environmental Psychology, 46*, 67-82.

Wall, G., & Mathieson, A. (2006). *Tourism: Change, impacts, and opportunities*. Harlow: Pearson Education.

Wang, S., & Chen, J.S. (2015). The influence of place identity on perceived tourism impacts. *Annals of Tourism Research, 52*, 16–28.

Wearing, S., & Wearing, B. (2001). Conceptualizing the selves of tourism. *Leisure Studies, 20*, 143-159.

Wickham, T. D., & Kerstetter, D. L. (2000). The relationship between place attachment and crowding in an event setting. *Event Management, 6*(3), 167-174.

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*, 29-46.

Williams, D.R., & Vaske, J.J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science, 49*(6), 830-840.

Wong, J., Wu, H. C., & Cheng, C. C. (2015). An empirical analysis of synthesizing the effects of festival quality, emotion, festival image and festival satisfaction on festival loyalty: A case study of Macau Food Festival. *International Journal of Tourism Research, 17*(6), 521-536.

Woosnam, K.M. (2011a). Comparing residents' and tourists' emotional solidarity with one another: An extension of Durkheim's model. *Journal of Travel Research, 50*(6), 615–626.

Woosnam, K.M. (2011b). Testing a model of Durkheim's theory of emotional solidarity among residents of a tourism community. *Journal of Travel Research, 50*(5), 546–558.

Woosnam, K.M. (2012). Using emotional solidarity to explain residents' attitudes about tourism development. *Journal of Travel Research, 51*(3), 315–327.

596 Woosnam, K.M. (2013). Modifying the IOS Scale among Tourists. *Annals of Tourism Research*, *42*, 431-
597 434.
598 Woosnam, K.M., Aleshinloye, K.D., Strzelecka, M., & Erul, E. (2016, in press). The role of place
599 attachment in developing emotional solidarity with residents. *Journal of Hospitality and Tourism*
600 *Research*, doi: 10.1177/1096348016671396
601 Woosnam, K.M., & Aleshinloye, K.D. (2013). Can tourists experience emotional solidarity with
602 residents? Testing Durkheim's model from a new perspective. *Journal of Travel Research*, *52*(4),
603 494–505.
604 Woosnam, K.M., & Norman, W.C. (2010). Measuring residents' emotional solidarity with tourists: Scale
605 development of Durkheim's theoretical constructs. *Journal of Travel Research*, *49*(3), 365-380.
606 Woosnam, K.M., Norman, W.C., & Ying, T. (2009). Exploring the theoretical framework of emotional
607 solidarity between residents and tourists. *Journal of Travel Research*, *48*(2), 245 – 258.
608 World Tourism Organization. (2012). *Tourism and intangible cultural heritage*. Madrid, Spain: UNWTO.
609 Wu, H. C., & Ai, C. H. (2016). A study of festival switching intentions, festival satisfaction, festival
610 image, festival affective impacts, and festival quality. *Tourism and Hospitality Research*, *16*(4),
611 359-384.
612 Yu, J., & Lee, T J. (2014). Impact of tourists' intercultural interactions. *Journal of Travel Research*, *53*(2),
613 225 – 238.
614 Yuksel, A., Yuksel, F., & Bilim, Y. (2010). Destination attachment: Effects on customer satisfaction and
615 cognitive, affective and conative loyalty. *Tourism Management*, *31*(2), 274-284.
616
617