

Managing place attachment to influence empowerment at wine cultural region¹

Tsai-Fa (TF) Yen²

*Professor, School of Economics and Research Center for Spatial Economics,
Sichuan University of Science and Engineering, Zigong, 643000, Sichuan, China*

Abstract: Wine has been found for a long time and become one of the famous national treasures in China. It's been popular just like silk, tea, ceramics and martial arts. However, the industry has faced the competition of supply side after the excessive numbers of new wine enterprises were found and the alcohol restriction policy was made. The objective of this study is 1) to clarify the relationships between place attachment and its outcome, empowerment resident perceived, at a wine cultural region; 2) verifying the moderating role of gender on place attachment- empowerment relationships resident perceived at a wine cultural region; and 3) to draw some implications for academia and practice. Questionnaire survey was employed for collecting the data and a total number of 400 questionnaires were delivered. Finally, 372 usable samples were obtained, resulting in a response rate of 93%. Finding showed that place attachment has positive and significant effects on empowerment while gender difference does not moderate its relation. Some more implications and recommendations, such as the better living life and activities can be met at the wine culture setting for residents; and thus satisfied their needs, are listed.

Keywords: place attachment, empowerment, wine culture

1. Introduction

Wine has been found for a long time and become one of the famous national treasures in China. It's been popular just like silk, tea, ceramics and martial arts. In 2017, the output values estimated of wine industry has reached 690 billion yuan (RMB) and a total of 19 firms were listed in stock market (Yen, 2018). However, with the excessive number of new wine enterprises found and the alcohol restriction policy was carried out by the government in 2013, the competition of supply side in the wine industry has become increasingly fierce. How to response this serious problem under the fierce competition has become the most important topic for the industry.

Reflecting on this issue, the policy about wine industrial integration was made by the national council in 2015 and relevant rules and laws were carried out by the province. For example, "Opinions on Structural

¹ This work was a major project and supported by RCITI (Research center for industrial transformation and innovation, Sichuan province) [grant No. CYZ2017-2], RCST (Research center for smart tourism, Sichuan province) [grant No. ZHZ17-04], RIPS (Research institute of philosophy and social science) [grant No. ZHZ14-06], and Project of talent introduction for SUSE (Sichuan University of Science and Engineering) [grant No. 2017RCSK18].

² Corresponding: 1722997311@qq.com

Reform of Supply Side of Guizhou Wine Industry Near Industrial Transformation and Upgrading" was issued by the government of Guizhou province. It's emphasized that the wine firms should strengthen the brands, optimized the products, improved the quality, well organized the network marketing and promoted the industrial integration for the wine industry. Tourism industry has become one of the popular industries for wine firms. Consequently, rural tourism, red tourism and ecotourism were conducted to the wine industry and this situation was followed by other provinces.

Following the policy supports of the government, members of wine industry have launched resource inventory and industrial integration. For example, leading wine-making enterprises such as Maotai, Wuliangye and LuzhouLaojiao Group have diversified their operations, set up wine culture museums (i.e. Wuliangye and LuzhouLaojiao Group), set up national tourist attractions (i.e. LuzhouLaojiao, AAAA-level scenic spot), developed industrial tourism, organized wine culture festivals, and combined with nearby tourist attractions. Horizontal and vertical integration of industries are met. It has also begun to develop other industries in combination with local special resources, such as Wuliangye and local bamboo ecology to develop bamboo-related industries, forming a situation of integration of different industries (cross-industry integration) and diversification.

However, how many tourists pay for the integration of the industry, which takes the wine tourism as the main axis, and how much performance can be improved, have become an extremely important issue for the understanding of the members of the industry in the countryside. For local residents, how many residents can be attracted by the integration of wine enterprises into tourism industry, and how the relationships between wine enterprises and residents, are the research topic that wine enterprises want to clarify. Consequently this attachment for residents is extremely important and will be explored by this study.

Moreover, given that the residents with higher attachment to the wine tourism will carry out the higher performance, but there is still a lack of practical evidence. And what benefits does the higher attachment to the wine tourism carry out will be the next research question. Furthermore, the relative importance of gender is a recent topic: little effort is traditionally made of the differences between the attitudes of males and females especially related to rural tourism (Yen, 2017). Give that there is a positive impact from place attachment with a wine region to its outcome, do the gender effects change the rules? This is the third research question of this study.

In general, the objective of this study is 1) to clarify the relationships between place attachment and its outcome, empowerment resident perceived, at a wine cultural region; 2) verifying the moderating role of gender on place attachment-empowerment relationships resident perceived at a wine cultural region; and 3) to draw some implications for academia and practice.

2. Method

This study was aimed at verifying the relationships among variables. A quantitative approach was adapted for collecting and analyzing data.

2.1 Research framework and hypotheses

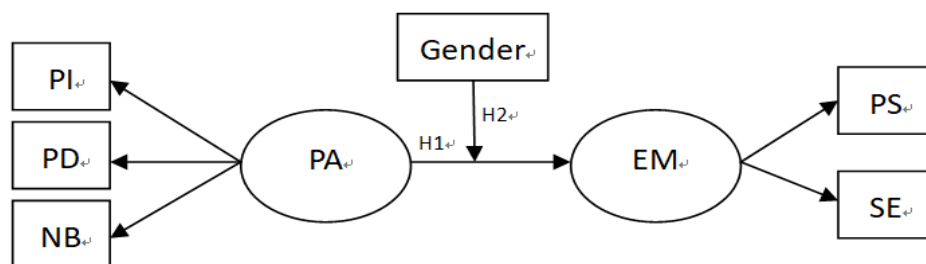
Based on the objectives, research framework was carried out (Fig 1). Place attachment is known as the emotional bonds (Strzelecka, Boley, & Woosnam, 2017) which can be developed between residents and their socio-physical environment. Thus many studies have demonstrated that it's an essential factor in planning for tourism development and can be viewed a good predictor when predicting the resident attitudes toward tourism (Yen, 2017; Wang & Chen, 2015; Strzelecka et al., 2017).

Within the relationships of variables in Fig1, place attachment was positively associated to empowerment based on previous studies (Strzelecka et al., 2017; Yen, 2017; Yen, 2019). This means that the higher place attachment resident perceived, the better perception of empowerment will reveal. Thus, this study proposed that the place attachment resident perceived might have the higher probabilities to impact his/her perception of empowerment to wine cultural region in smart tourism.

H1: the place attachment resident perceived might impact his/her perception of empowerment to wine cultural region in smart tourism.

Furthermore, previous studies have demonstrated that gender difference is an important variable in decision making (Yen, 2017; Yen, 2019). However, the studies on gender differences in the context of smart tourism, as well as its influence on formation of empowerment to wine cultural region, have rarely been carried out. Therefore, examination of the role of gender on place attachment- empowerment contributes to the existing smart tourism literature. Studies have illustrated that men and women are differently socialized, thus they have dissimilar roles in the society (Archer, 1996; Eagly, 1987). Gender is can be quickly judged by tourists' appearance in most situations but it's not been evidenced by residents' aspect. This implies men and women might have different perceptions of place attachment- empowerment relationship. Thus the following was proposed:

H2: Gender significantly moderates the place attachment- empowerment relationship.



Note: PA: place attachment; EM: empowerment; PI: place identity; PD: place dependence; NB: nature bonding; PS: psychological empowerment; SE: social empowerment

Fig.1. Research framework

2.2 Operationization of variables

- **Place attachment (PA)** has been described as the extent to which an individual values or identifies with a particular environmental setting (Kyle et al., 2003). In this study, it refers as the extent to which a resident identifies with the wine culture setting.

• **Place identity (PI)** is presented as the idea that dimensions of self are shaped by the symbolic meaning a particular place has for an individual (Proshansky, 1978). In this study, it refers as the idea/degree of the special meaning shaped by resident of the wine culture site.

• **Place dependence (PD)** has been described as a relationship to a setting with opportunities for meeting specific needs (Stokols & Shumaker, 1981). In this study, it refers as a relationship to a wine culture setting with opportunities for meeting specific needs of a resident. These specific needs include living life and activities.

• **Nature bonding (NB)** has been defined as, “an implicit or explicit connection to some part of the non-human natural environment, based on history, emotional response or cognitive representation (e.g., knowledge generation)” (Raymond et al., 2010, p. 426). In this study, it refers to the implicit or explicit connection a resident perceived to some part of the natural environment with the wine culture setting.

• **Empowerment (EM)** has been described as the linkage of individual changes, interpersonal changes and social structural changes in a tourism context (Kieffer, 1984; Simmons & Parsons, 1983). In this study, it refers to psychological and social changes of a resident at the wine culture setting.

• **Psychological empowerment (PE)** has been described as the residents’ self-esteem and pride promoted by tourism initiatives (Ramos & Prideaux, 2013). In this study, it refers to a resident’s self-esteem and pride promoted by tourism initiatives at the wine culture setting.

• **Social empowerment (SE)** has been described as an increasing community cohesion after tourism-related activities strengthen local relationships (Scheyvens, 1999). In this study, it refers to the increasing community cohesion after tourism-related activities strengthen local relationships at the wine culture setting.

2.3 Measure tools

Questionnaire survey was employed for collecting the data. To ensure validity, this study is constructed on the basis of scales adopted, in large part, from previous studies, using existing scales for measuring place identity (Strzelecka et al., 2017; Yen, 2017; Yen, 2019). Six items, “I identify strongly with the wine culture region at Yibin”, “I feel the wine culture region at Yibin is a part of me”, “The wine culture region at Yibin is very special to me”, “The wine culture region at Yibin means a lot to me”, “I am very attached to the wine culture region at Yibin”, and “I have a lot of fond memories of the wine culture region at Yibin” were adopted. For measuring place dependence, five items were adopted based on previous studies (Strzelecka et al., 2017; Yen, 2017) and they are “Living life in Yibin is better than living anywhere else in the world”, “Living in Yibin satisfies my needs better than any other place could”, “I would not substitute any other area for the activities I do in the Yibin region”, “No other place can compare to the Yibin region”, and “The Yibin region is the best place for the activities I like to do”. For measuring nature bonding four items were adopted based on previous studies (Strzelecka et al., 2017) and they are “I am very attached to the natural environment in the Yibin region”, “When I spend time in the natural environment in the Yibin region, I feel at peace with myself”, “I learn a lot about myself when spending time in the natural environment in the Yibin region”, and “When I spend time in the natural environment in the Yibin region, I feel a deep sense of oneness with the natural environment”. For measuring psychological empowerment, four items were adopted based on previous studies (Strzelecka et al.,

2017) and they are “Makes me proud to be a Yibinresident”, “Makes me want to tell others about what we have to offer in Yibin”, “Reminds me that I have a unique culture to share with visitors”, and “Makes me want to work to keep Yibin special”. For measuring social empowerment, four items were adopted based on previous studies (Strzelecka et al., 2017) and they are “Makes me feel more connected to my community”, “Fosters a sense of ‘community spirit’ within me”, and “Provides ways for me to get involved in my community”.

Likert scales (1-5) with anchors ranging from “strongly disagree” to “strongly agree” are used for all questions. All of these scales have been shown to be reliable and valid, and based upon prior research. A questionnaire was prepared for collecting rating and other information. Items measuring the various constructs were distributed about in the questionnaire to reduce halo effects.

2.4 Questionnaire survey

The empirical study was carried out at wine culture region at Yibin, an important and famous wine destination in southern Sichuan province, China. Residents over the age of 18 years and who were visiting the attractions within the wine culture region at Yibin were considered to be the target population. Applying the quota sampling technique, a total number of 400 questionnaires were delivered and 372 usable samples were obtained, resulting in a response rate of 93%.

Of 372 questionnaires obtained, about 44.9% were male and 55.1% were from female respondents. At about 26.1% of respondents (n=97) were 18-29 years of age, 18.8% of respondents (n=70) were 30-39 years of age, 17.5% of respondents (n=65) were 40-49 years of age, 29.6% of respondents (n=110) were 50-59 years of age or above, and 8.1% questionnaires out of the total were missing values.

3. Results

3.1. Common method variance (CMV) assessment

The potential occurrence of common method variance (CMV) was tested by employing a Harman's one-factor test. An exploratory factor analysis containing all reflective indicators for place attachment was conducted. Consistent with the measurement model, the results of the principal components factor analysis reveal that there are three factors that account for 64% of the total variance. CMV does not appear to be a problem, since the first factor did not account for the majority of the variance (only 27.7%). Moreover, a CFA approach to Harman's one-factor test for place attachment was used to assess whether a single latent factor accounts for all manifest variables (Podsakoff et al., 2003). The one-factor model for place attachment yielded a χ^2 of 798 (df= 75) compared with a χ^2 of 200 (df= 72) for the three-factor measurement model in which manifest variables were assigned to load onto their theoretical constructs. The fit is considerably worse for the unidimensional model than for the measurement model ($\Delta\chi^2=598$, $\Delta df= 72$, $p<.01$) suggesting that CMV is not a serious threat in the study. Finally, the major focus of this study is on interaction effects; however, CMV usually works against differential validity (Evans, 1985).

3.2 Measurement quality testing

First of all, CFA with a maximum likelihood estimate approach was run to evaluate the measurement model. The results of the CFA for place attachment revealed an acceptable fit to the data ($\chi^2 = 200$, $df=72$, $p=.000$, $\chi^2 / df = 2.78$, $GFI=.93$, $AGFI= .90$, $CFI= .95$, $RMSEA= .069$). As displayed in Table 1, measures for place identity, place dependence, and nature bonding constructs were internally consistent in that composite reliabilities for study variables were .91, .82, and .77. These values exceeded the recommend threshold of .60 suggested by Bagozzi & Yi (1988). In addition, AVE values were .63, .50, and .52 for place identity, place dependence, and nature bonding constructs which was greater than the suggested cut-off of .50 (Hair et al., 1998). This finding indicated that the convergent validity is evident (Hair et al., 1998). The AVE values were also greater than the squared correlations of related variables (Table 3). Thus, discriminant validity was also evident (Fornell & Larcker, 1981).

Table 1 CFA for place attachment

Factor and items [↕]	M [↕]	SD [↕]	λ [↕]	CR [↕]	AVE [↕]
Place Identity (PI) (Cronbach's Alpha: .91)[↕]				.91[↕]	.63[↕]
I identify strongly with the wine cultural site at Yibin region [↕]	3.68	1.07	.731 [↕]		
I feel the wine cultural site at Yibin region is a part of me [↕]	3.05	1.19	.816 [↕]		
The wine cultural site at Yibin region is very special to me [↕]	3.27	1.11	.841 [↕]		
The wine cultural site at Yibin region means a lot to me [↕]	3.18	1.10	.804 [↕]		
I am very attached to the wine cultural site at Yibin region [↕]	2.95	1.23	.762 [↕]		
I have a lot of fond memories of the wine cultural site at Yibin region [↕]	2.89	1.15	.793 [↕]		
Place Dependence (PD) (Cronbach's Alpha: .83)[↕]				.82[↕]	.50[↕]
Living life in Yibin is better than living anywhere else in the world [↕]	3.47	1.01	.755 [↕]		
Living in Yibin satisfies my needs better than any other place could [↕]	3.28	1.08	.818 [↕]		
I would not substitute any other area for the activities I do in the Yibin region [↕]	3.04	1.10	.759 [↕]		
No other place can compare to the Yibin region [↕]	3.80	0.92	.574 [↕]		
The Yibin region is the best place for the activities I like to do [↕]	3.68	0.94	.549 [↕]		
Nature Bonding (NB) (Cronbach's Alpha: .77)[↕]				.77[↕]	.52[↕]
I am very attached to the natural environment in the Yibin region [↕]	3.98	1.12			
When I spend time in the natural environment in the Yibin region, I feel at peace with myself [↕]	3.94	0.89	.708 [↕]		
I learn a lot about myself when spending time in the natural environment in the Yibin region [↕]	3.60	0.92	.701 [↕]		
When I spend time in the natural environment in the Yibin region, I feel a deep sense of openness with the natural environment [↕]	3.66	0.98	.754 [↕]		

$\chi^2 = 200$, $df=72$, $p=.000$, $\chi^2 / df = 2.78$, $GFI=.93$, $AGFI= .90$, $CFI= .95$, $RMSEA= .069$

Moreover, the results of the CFA for empowerment revealed an acceptable fit to the data ($\chi^2 = 45$, $df=13$, $p=.000$, $\chi^2 / df = 3.46$, $GFI=.96$, $AGFI= .92$, $CFI= .97$, $RMSEA= .082$). As displayed in Table 2, measures for psychological empowerment and social empowerment constructs were internally consistent in that composite reliabilities for study variables were .78, and .86. These values exceeded the recommend threshold of .60 suggested by Bagozzi & Yi (1988). In addition, AVE values were .48 and .67 for psychological empowerment and social empowerment constructs which was close to/greater than the suggested cut-off of .50 (Hair et al., 1998). This finding indicated that the convergent validity is evident (Hair et al., 1998). The AVE values were

also greater than the squared correlations of related variables (Table 3). Thus, discriminant validity was also evident (Fornell&Larcker, 1981).

Table 2 CFA for Empowerment

Factor and items	M	SD	λ	CR	AVE
Psychological Empowerment (PS) (Cronbach's Alpha: .78)				.78	.48
Makes me proud to be a Yibin Resident	4.09	0.99	.629		
Makes me want to tell others about what we have to offer in Yibin	3.63	1.00	.715		
Reminds me that I have a unique culture to share with visitors	3.80	0.94	.748		
Makes me want to work to keep Yibin special	3.55	0.95	.659		
Social Empowerment (SE) (Cronbach's Alpha: .86)				.86	.67
Makes me feel more connected to my community	3.37	1.02	.834		
Fosters a sense of 'community spirit' within me	3.26	1.08	.833		
Provides ways for me to get involved in my community	3.31	1.03	.788		

$\chi^2 = 45$, $df = 13$, $p = .000$, $\chi^2 / df = 3.46$, $GFI = .96$, $AGFI = .92$, $CFI = .97$, $RMSEA = .082$

Table 3 Discriminant validity analysis from factors

Items	M	SD	1	2	3	4	5
1 PI	19.02	5.70	.63				
2 PD	17.27	3.91	.465**	.49			
3 NB	11.20	2.30	.323**	.412**	.52		
4 PS	15.07	3.01	.499**	.597**	.361**	.48	
5 SE	9.93	2.76	.486**	.529**	.457**	.610**	.67

a The bold diagonal elements are the measures of average variance explained (AVE) for each factor.

b Below diagonal elements are the correlations between factors.

c All correlations were significant at $p < 0.01$.

3.3 Hypotheses testing

First of all, the effects of place attachment on empowerment were run. The results revealed a good level of fit for the structural model: $\chi^2 = 11.6$, $df = 4$, $p = .021$, $\chi^2 / df = 2.9$, $GFI = .988$, $AGFI = .955$, $CFI = .987$, $RMSEA = .072$. Based on these fit measures, it can be concluded that the model is acceptable. The standardized

parameter estimates and fit indices are reported in Fig. 2. Next, the individual parameters/paths in the structural path model were evaluated. Specifically, the hypotheses were tested by evaluating the relationships between the exogenous and endogenous variables. Fig. 2 reports that the place attachment was significantly and positively related to empowerment ($\beta = .98$), supporting H1.

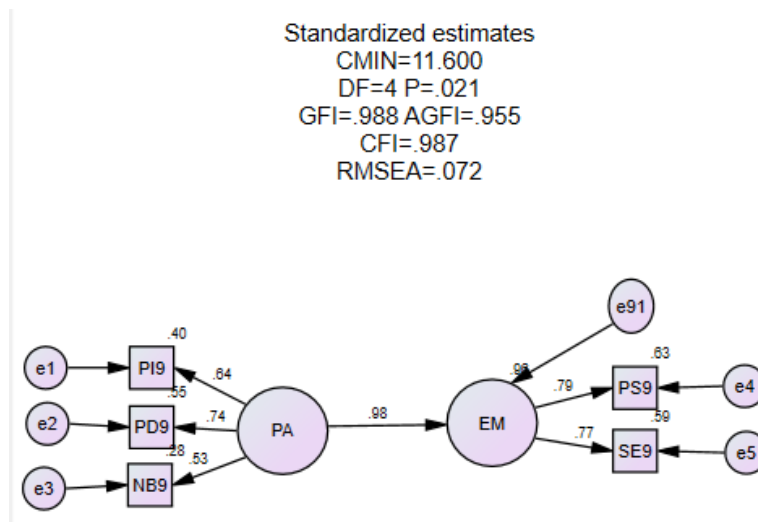


Fig. 2. Results of the effects of PA on EM

As a next step, the initial data was sorted by gender group (male=167, female=205) and multiple group analysis was run. Following the suggestions of Byrne (2010), multi- sample analysis for the unconstrained and the three constrained models were estimated as Table 4 (Fig. 2). The results of the unconstrained model revealed that the model excellently fit to the data ($\chi^2 = 20.7$, $df=8$, $p=.001$, $\chi^2 / df = 2.589$, $GFI=.979$, $AGFI= .922$, $CFI= .979$, $RMSEA= .066$). Furthermore, assuming model measurement weights to be corrected, the results of the constrained model revealed that the model excellently fit to the data ($\chi^2 = 23.1$, $df=11$, $p=.002$, $\chi^2 / df = 2.10$, $GFI=.977$, $AGFI= .937$, $CFI= .980$, $RMSEA= .055$). Moreover, assuming model structural weights to be corrected, the results showed that he model excellently fit to the data ($\chi^2 = 23.4$, $df=12$, $p=.002$, $\chi^2 / df = 1.95$, $GFI=.977$, $AGFI= .941$, $CFI= .981$, $RMSEA= .051$). Then, assuming model structural covariances to be corrected, the results showed that he model excellently fit to the data ($\chi^2 = 24.3$, $df=13$, $p=.003$, $\chi^2 / df = 1.87$, $GFI=.976$, $AGFI= .944$, $CFI= .982$, $RMSEA= .048$). Assuming model structural residuals to be corrected, the results showed that he model excellently fit to the data ($\chi^2 = 25.5$, $df=14$, $p=.003$, $\chi^2 / df = 1.82$, $GFI=.974$, $AGFI= .945$, $CFI= .981$, $RMSEA= .047$). Finally, assuming model measurement residuals to be corrected, the results showed that he model excellently fit to the data ($\chi^2 = 34.6$, $df=19$, $p=.002$, $\chi^2 / df = 1.82$, $GFI=.966$, $AGFI= .946$, $CFI= .975$, $RMSEA= .047$). In general, the model fitness was getting better while the constraint was added and the structural weights were larger in female than in male in unconstrained model.

Then, the χ^2 difference test was run. The test results for nested model comparisons were showed in Table 5. The χ^2 difference test ($\chi^2(3)=2.4$, $p>.05$) between baseline model and constrained model for measurement weights was not significant, indicating the factor loadings across gender were equivalent.. The χ^2 difference test between baseline model and constrained model for structural weights ($\chi^2(1)=.31$, $p>.05$) was not significant, indicating the structural residuals across gender were equivalent. Moreover, the χ^2 difference test

between baseline model and constrained model for structural covariances ($\chi^2(1)=.87$, $p>.05$), structural residuals ($\chi^2(1)=1.97$, $p>.05$) and measurement residuals($\chi^2(5)=9.09$, $p>.05$) were also not significant, indicating the structural covariances, structural residuals, and measurement residuals across gender were equivalent. The findings did not support H2. This means the measure adapted in this study across gender was equivalent. Furthermore, the structural weights across gender were equivalent indicating even the effect of PA on EM for female was larger than male is true but statistically it's not significant.

Table 4 Model Fit Indexes for Unconstrained and Constrained Model

Model	χ^2	DF	P	χ^2/DF	GFI	AGFI	CFI	RMSEA
Unconstrained	20.71	8.00	0.01	2.59	.979	.922	.979	.066
Measurement weights	23.12	11.00	0.02	2.10	.977	.937	.980	.055
Structural weights	23.43	12.00	0.02	1.95	.977	.941	.981	.051
Structural covariances	24.31	13.00	0.03	1.87	.976	.944	.982	.048
Structural residuals	25.50	14.00	0.03	1.82	.974	.945	.981	.047
Measurement residuals	34.60	19.00	0.02	1.82	.966	.946	.975	.047

Table 5 Nested Model Comparisons

Model	$\Delta\chi^2$	ΔDF	P
Measurement weights	2.404	3	.493
Structural weights	.312	1	.576
Structural covariances	.879	1	.348
Structural residuals	1.197	1	.274
Measurement residuals	9.091	5	.105

4 Conclusions

With the growing interests in place attachment among tourism studies, none of research has focused on the relationship between place attachment and empowerment as well as the discussion of gender difference at a wine culture setting. Thus, this study contributes to find that place attachment has positive and significant effects on empowerment while gender difference does not. Some more implications and recommendations are listed below.

4.1 Implications

First of all, the effect of place attachment on empowerment is supported indicating that the degree of the special meaning shaped by residents of the wine culture site can positively enhance their psychological and

social changes. It also demonstrates place identity, place dependence, and nature bonding can be generalized into place attachment as well as empowerment construct is comprised of psychological empowerment and social empowerment. Specifically, among three components of place attachment, place dependence has got the largest coefficients indicating that residents can meet the specific needs by the development of wine culture tourism. On the other words, the better living life and activities can be met at the wine culture setting for residents; and thus satisfied their needs.

In line with previous study, Strzelecka et al. (2017) found that place identity, place dependence, and nature bonding can positively influence psychological empowerment and social empowerment while the place dependence revealed the less impacts on psychological empowerment. The finding of this study that place dependence presents the large impacts on psychological empowerment has offered another insight into academia and practitioners. As study illustrated that place attachment has an effect on residents' perceptions of tourism's psychological benefits because of the industry's ability to change the character of communities and indirectly affect how satisfied residents are with physical and social attributes of the community (e.g., Mesh & Manor, 1998; Strzelecka et al., 2017). Residents who are more attached to wine culture region will have amplified perceptions of tourism's psychological benefits or costs compared to those who do not feel attached to their community and environment while the development of wine culture tourism was promoted.

Moreover, the same three dimensions, place identity, place dependence, and nature bonding explained residents' ability to become socially empowered through the development of wine culture tourism. This means place attachment to the community amplifies residents' ability to work together for the development of wine culture tourism. By this way, residents who are more engaged within their communities have more to gain or lose from the development of wine culture tourism, they would be willing to work together for the benefit of tourism when tourism supports their local identity and personal goals (Strzelecka et al., 2017).

Furthermore, except of the place identity and place dependence, ecocentrics develop stronger bonds with the natural environment and therefore their empowerment experience is amplified. This means that residents who are more engaged within their communities; or who are more attached to wine culture region are willing to work together might because of the consideration of natural environment known as nature bonding. Therefore the place marketers should promote it when developing the wine culture tourism.

Finally, the effect of gender difference on place attachment – empowerment relationship is insignificant. It indicates that the measure instruments used in this study can be extended to wine culture tourism context, as well as the role of gender difference is not the key issue when communities try to change something and need residents engaged within their communities. Therefore females would have the higher probabilities to become an important manpower in community affairs especially when the development of wine culture tourism.

4.2 Recommendations

Based on discussions mentioned above, several suggestions to academia and practitioners can be drawn. For local government, basic infrastructure residents' needed should be improved first. This can enhance their place identity and place dependence, and thus encourage them to join the public affairs. Moreover, marketing

activities related to city/residents should be hold. These activities can evoke residents' perception about the city. This is very similar to the illustration of previous study, place attachment can be used to understand the extent to which changes in the socio-physical environment can occur without having negative effects on resident perceptions of empowerment through tourism-a fundamental prerequisite for sustainable tourism.

For further researchers, this study has verified the relationships between place attachment and empowerment through investigating residents from wine culture setting. Further study should extend the samplesources and make a comparison between residents and non-residents. Furthermore, further study should extend the model, for example, sustainable support, further intentions, and behavior can be included as the dependent variables. Values, involvement, and destination image can be included as the independent variables.

References

- [1]. Archer, J. (1996). Sex differences in social behavior: Are the social role and evolutionary explanations compatible? *American Psychologist*, 51(9), 909-917.
- [2]. Bagozzi, R. & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Sciences*, 16, 74-94.
- [3]. Byrne, B. M. (2010). *Structural Equation Modeling With AMOS: Basic Concepts, Applications, and Programming*, 2 ed, Routledge, Taylor & Francis Group, NJ. 197-200.
- [4]. Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.
- [5]. Evans, M.A. (1985). Impact of classroom activities on beginning reading development, *New Direction for Children and Adolescent Development*, 27, 77-94.
- [6]. Fornell, C. & Larcker, D.F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18, 382-388.
- [7]. Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis* (5th ed.). New York: Macmillan.
- [8]. Kieffer, C. (1984). Citizen empowerment: A developmental perspective. *Prevention in Human Services*, 3, 9-36.
- [9]. 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), 249-274.
- [10]. Mesh, G., & Manor, O. (1998). Social ties, environment perception and local attachment. *Environment and Behavior*, 30(4), 504-519.
- [11]. Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y., & Podsakoff N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies, *Journal of Applied Psychology* 88(5), 879-903.
- [12]. Proshansky, H. M. (1978). The city and self-identity. *Environment and Behavior*, 10(2), 147-169.
- [13]. Ramos, A. M., & Prideaux, B. (2013). Indigenous ecotourism in the Mayan rainforest of Palenque:

- Empowerment issues in sustainable development. *Journal of Sustainable Tourism*, 22(3), 461-479.
- [14]. 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.
- [15]. Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism Management*, 20, 245-249.
- [16]. Simmons, C., & Parsons, R. (1983). Developing internality and perceived competence: The empowerment of adolescent girls. *Adolescence*, 18(72), 917-922.
- [17]. Stokols, D., & Shumaker, S. A. (1981). The psychological context of residential mobility and well-being. *Journal of Social Issues*, 38(3), 149-171.
- [18]. 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.
- [19]. Wang, S., & Chen, J. S. (2015). The influence of place identity on perceived tourism impacts. *Annals of Tourism Research*, 52, 16-28.
- [20]. Yen, T.F. (2017). Effects of place attachment, involvement, trust, and sustainable tourism development in tea culture tourism, *Leisure Business Research*, 15(3), 21-35.
- [21]. Yen, T.F. (2018). Effects of destination brand image on satisfaction and behavioral intentions in the liquor tourism context: the moderator of involvement, *Journal of Sport, Leisure and Hospitality Research*, 13(3), 1-20.
- [22]. Yen, T.F. (2019). Managing invariance of place identity across gender for wine cultural tourism, *IJRDO - Journal of Business Management*, 5(1), 36-43.