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Full Length Research Paper

# The study of current residents' cognition, place attachment and community sense of tourism impacts towards the casino industry development

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Taiwan has wanted to open up casino for some time. The offshore island of Penghu in particular wants to escape from the difficulty and low prosperity typical of small offshore islands. This study discusses whether or not casino development is related to local residents' place attachment and community sense. It hopes to evaluate what impact casino may bring from the perspectives of the local residents and discover what attitude and emotions the locals have towards casino. The study results shows that place attachment and sense of community cause great influence on casino businesses. Therefore, if we prevent the impact casino may bring and implement the mechanism for the community residents to participate in, then the local residents have a better understanding of casino business, eventually supporting and taking part in the casino business.

and Lin, 2009).

Key words: Casino, tourism impact, place attachment, sense of community, developing attitude.

#### INTRODUCTION

Taiwanese government began operating a computerized lottery on January 16th, 2002, the Legislative Yuan, passed offshore island development act amendments following three readings, it's expected and highly controversial regulation on casino failed to elicit enough support to pass voting. On January 12th, 2009, the Legislative Yuan passed the casino regulations and lowered the minimum required number of votes for a referendum to build casino on offshore islands. These two similar public policies met at different times and came up with completely different results. In the past, people in Taiwan felt the opening of offshore tourist casino was very controversial. The supporters usually use Las Vegas as an example, showing that although Las Vegas is located in a deserted area of Nevada, it still brings in large amounts of money, improved public facilities and increased residents' income and government tax revenue,

the cognition and perspective of locals towards tourism

will affect future development attitude. Therefore, this

study shall discuss what the impact of tourists will have

fostering investment and increasing local industrial

development and a booming local economy through the

operation of casino. The detractors believe that the

legalization of casino will create additional social

problems, pay more costs on society. Even the tourism

industry, hotels stationed in the Islands, and destroyed

the local ecological environment (Andereck and Vogt,

2000; Ko and Stewart, 2002; Wang et al., 2008; Yang

Of the offshore islands in Taiwan, Penghu has better basic facilities and industries. However, the tourism recession has caused the government to experience an increase in poverty. The Penghu County government has been urging the establishment of casino, going to each township's communities to hold meetings describing casino in the hopes that the local residents will support the idea. However, the locals are unsure whether or not the casino business will bring positive benefits or negative impacts to tourism. Jackson (2008) believes that

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from the point of view of local residents towards casino, and also what the affects are towards the attitude of developing casino. This will be one of the main motivations.

The relationship between people and the environment is an abstract concept. This explains why local communities have different behavior modes on environmental resource usage (Lin and Hsu, 2007). A place is a location to experience a personal, grouped or serious cultural process. In there, people and the environment develop relations such as sense of place, place attachment and community attachment to explain the connections between people and the environment (Nanzer, 2004). Wu (2009) believes that after soldiers finish their service, they create place attachment and retro-emotion, which will further affect tourism development. In other words, to build the concept of military tourism, we can blend place attachment with tourism to become a base to promote tourism from and affect tourism development. This will be the second main motivation of this study.

Before promoting tourism and activating local resources, a community should consider the residents' attitude in a communal sense, mainly because the participation of local residents is the key to inducing local tourism development (Tang, 1984). Therefore, a community must understand and develop its own features, taking the entire community as an organization and operator, and also as one of the tourism resources to promote. That way, when the local government is promoting tourism development, they should encourage the community residents to spontaneously participate, form local community activities and co-operate with government policy. The government can then create a local tourism development guide. From this we can know that the gathering sense of community is the power of community tourism development due to gathering sense of community creating different affects depending on cognition towards community and the residents' participation levels (Tsai, 1996). What is the sense of community from the local residents of Penghu and what affects will it have towards the casino development attitude? This will be the third research motivation.

The present related documents regarding casino cover such research topics as casino industry policy (Hsieh, 2003) and management systems (Chu, 2002; Ho, 2005), and also discuss the operation mode of casino (Chung, 2005; Gonzales et al., 2007) and the impacts of casino on the economy (Long, 1996; Hong and Jang, 2004; Kao,2006; Huang,2007). There are, of course, the general public's attitude towards casino (Grant et al., 2000; Israeli and Mehrez, 2000; Kang et al., 2004) and social behavior issues in casino (Carmichael, 2000; Lin, 2005; Chan, 2008). Chang (2001) However, people seldom analyze casino development from the perspective of residents. According to the background and motivation mentioned above, this study is hoping to discover the casino development from the residents' point of view and

what casino attitude the residents have towards the local community. Hopefully, through the results of the study, we can provide suggestions for casino development to the decision maker as a reference.

#### LITERATURE REVIEW

#### Proper noun

#### Casino

Wu (2002) believes that translating casino as tourist casino is more appropriate because the structure of casino and entertainment facilities is included in the casino. They provide casino and tourism activities, especially as the operating concept for today's casino is not limited to only indoor locations. Even a luxurious cruise ship can be a floating casino. However, the casino as defined by this study is the previous types.

#### Tourism impact

Lo (1985) indicates that in the areas offered for tourism, the environment will undergo a certain amount of changes, either scientifically or socially. Therefore, the tourism activities that cause society and the environment to change are called tourism impact. Lee (1996) shows that tourism activity can stimulate investment or increase job opportunities but also give local sciences, environment or society different impacts because of the development and large amounts of tourists. Therefore, the possible influences should be considered and discussed when developing tourism.

#### Place attachment

Place attachment is defined as a person being able to identify the differences between places. Experiencing different features for the place means the person has created place attachment. The person then blends their personal memories, producing personal emotion, social meaning and historical meaning towards the natural view (Liu, 2004).

## Sense of community

Sense of community is defined as a group of people living together having psychological cognition and blend (Xu, 1995). They produce recognition and heart to contribute to the community (Lin, 1995), and also create the satisfaction and interaction between communities (Sung, 1997).

#### Developing attitude

Attitude is also a result of cognition and learning. It

reflects what a person likes or doesn't like (Dung, 2002). This means in cognition, emotion and behavior show a long-lasting way towards people, things and items (Huang, 1992).

### **Hypotheses**

## Related documents of tourism impact and developing attitude

Lin et al. (2007) believes that the overall profit that sports tourism brings has more pros than cons. The residents usually have a higher supportive attitude towards sports tourism. Chuang et al. (2008) believes that the impact tourism cognition residents have affects future tourism development cognition. Yang and Chen (2008) used the social exchange theory to discuss the residents point of view of tourism. The cognition towards economy, culture and environment affect the tourism development attitude (Angeles et al., 2008). He found that the tourism development attitude of the local residents depends on if the tourism development is good or bad towards overall personal or community benefits. Therefore this study proposes hypothesis one: Residents' tourism impact cognition is greatly related to casino development attitude.

# Related documents of place attachment and developing attitude

Kyle et al. (2004) found that mountain climbers create place attachment through participating in activities and affect the attitude that climbers have towards mountain climbing. Li and Wang (2008) believes that place attachment can affect residents' tourism cognition, attitude and tourism experience. In other words, due to the rapid increase of tourism in the last 30 years, competition is increasing under this kind of background. We used place attachment to discuss the residents' tourism cognition, attitude and tourists' traveling experiences. Therefore, this study proposes hypothesis two: Residents' place attachment is greatly related to casino development attitude.

# Related documents of sense of community and developing Attitude

Chen (1992) believes that local residents participation greatly affects tourism development. Encouraging community residents to support and participate in tourism activities will help the industry and economy to grow and reach the goal of activating local industry and community development (Cheng and Pien, 2001). Therefore, residents' sense of community is related to tourism development and impact cognition (Wang, 2000). Focusing on if the community attachment level in the sense of community affects the positive and negative

attitudes (McCool and Martin, 1994). There are some items that community attachment level has no affect towards with regards to tourism cognition (Lankford and Howard, 1944). Therefore this study proposes hypothesis three: Residents' sense of community is greatly related to the casino industry.

#### **MATERIALS AND METHODS**

#### Research framework

The research framework and the determinants of each variable in the research framework (Figure 1).

#### Data collection

The Hu Xi Harbor Base and Ho Liao Bay Base in Penghu County are the planned locations for casino industries, so this study uses these two planned locations to perform random sampling and ensure that the interviewees are registered as living in Penghu while in actuality live in the planned locations. After giving descriptions of the whole study plan and getting the approval of the interviewees, we held a person-to-person questionnaire.

#### Questionnaire design

The questionnaire consists of five major parts which are described in detail below: (1) Tourism Impact: The Spears and Boger (2003) tourism impact scale; use the Likert scale to measure. (2) Place Attachment: The Hwang et al. (2003) place attachment scale; use the Likert scale to measure. (3) Sense of Community: The Buckner (1998) sense of community scale; use the Likert scale to measure. (4) Developing attitude: The Davis et al. (1988) developing attitude; use the Likert scale to measure. (5) Individual Variables: Including gender, age, residence, education attained, occupation, personal income, marriage and family are engaged in tourism industry, whether participants increased its eco-tourism activities.

#### **RESULTS**

This study presents statistical analysis performed on each of the hypotheses, tests each of them and discusses the results.

#### Describes statistical

The study interviewed 250 residents living in Penghu as the test subjects. It then performed the descriptive statistics according to the valid questionnaires collected (Table 1).

First, we performed a simple descriptive statistics based on personal variables. We can see the random samplings' occupations in Chart 1: Students take up10.8%, farming, forestry and animal husbandry take up 11.6%, Military, Police, civil services and education take up 14.8%, industry and business take up 19.6%, housewives take up 9.6%, waiting for employment take up to

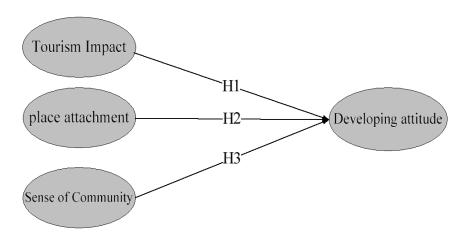


Figure 1. Research framework.

Table 1. Descriptive statistics analysis chart.

| Variable          |                   | N   | %    | Variable                         |  | N   | %    |
|-------------------|-------------------|-----|------|----------------------------------|--|-----|------|
| Sex               | Male              | 152 | 60.8 |                                  | Student  | 27  | 10.8 |
| Sex               | Female            | 98  | 39.2 |                                  | Agriculture, forestry, fishery, animal husbandry | 29  | 11.6 |
|                   |                   |     |      |                                  | Military police, civil service, education        | 37  | 14.8 |
|                   | 19                | 8   | 3.2  |                                  | Business   | 49  | 19.6 |
|                   | 20~29             | 24  | 9.6  | Job                              | Housewives                                       | 24  | 9.6  |
|                   | 30~39             | 28  | 11.2 |                                  | Awaiting job assignment                          | 30  | 12.0 |
| Age (years)       | 40~49             | 29  | 11.6 |                                  | Without work (with retirement)                   | 54  | 21.6 |
|                   | 50~59             | 54  | 21.6 |                                  |  |     |      |
|                   | 60                | 107 | 42.8 |                                  |  |     |      |
|                   |                   |     |      |                                  | Less than 5 years                                | 6   | 2.4  |
| Marital status    | Single            | 41  | 16.4 | Liberton or Classes Inc          | 6-10   | 4   | 1.6  |
|                   | Married           | 209 | 83.6 | Living time in<br>Penghu (years) | 11-15  | 12  | 4.8  |
|                   |                   |     |      | i eligila (years)                | 16-20  | 19  | 7.6  |
|                   |                   |     |      |                                  | 21   | 209 | 83.6 |
| To participate in | No                | 198 | 79.2 | Francisco di in                  | No   | 220 | 88.0 |
| casino tours      | Yes               | 52  | 20.8 | Engaged in tourism industry      | Yes  | 30  | 12.0 |
|                   | 20,000 and below  | 191 | 76.4 |                                  |  |     |      |
|                   | 20,001~40,000     | 32  | 12.8 |                                  | Junior school                                    | 164 | 65.6 |
| Monthly           | 40,001~60,000     | 14  | 5.6  | Level of                         | High school                                      | 53  | 21.2 |
| disposable income | 60,001~80,000     | 6   | 2.4  | education                        | Junior colleges                                  | 14  | 5.6  |
| IIICOIIIC         | 80,001~100,000    | 5   | 2.0  |                                  | University                                       | 17  | 6.8  |
|                   | 100,000 and above | 2   | 0.8  |                                  | Institute  | 2   | 0.8  |

12.0% and under employed (including the retired) take up to 21.6%. Second, most of the test subjects' living time in Penghu is longer than 21 years, accounting for up to

83.6%. Third, the age of the test subjects mostly falls into sixty years and up, accounting for up to 50.4%. Fourth, the education background usually falls in junior high

school or lower, accounting for up to 65.6%. Fifth, most of the test subjects are not in the tourism industry, accounting for up to 88.0%. Sixth, most of the test subjects don't go on casino tours, accounting for up to 79.2%. Seventh, the test subjects are mostly men; accounting for up to 60.8%. Eighth, the test subjects are mostly married, accounting for up to 83.6%. Ninth, the test subjects' income is mostly under 20,000, accounting for up to 76.4%.

The population of Penghu is mostly comprised of older people, compared to surrounding counties, so Penghu County Health Bureau checked the population of the elderly in different townships in Penghu in 2004 and found that the elderly in Hu Xi township and Bai Sha township, the planned locations of casino, make up for 36.3% (Penghu County Health Bureau, 2005). Therefore, we can see from Table One the residents in these two planned locations are mostly over 60 years of age. Most of the teenagers live elsewhere for work or studies, so the interviewees in the study in the planned locations are mostly the elderly.

#### Factor and reliability analysis

To further test the related hypotheses of the study, the research used factor analysis to reduce tourism impact, place attachment, sense of community and development attitude down to several categories of main factors. This way, the complications between variables is simplified. This study used principal component analysis to obtain the main factors. The guide for obtaining the factors is to obtain the factors that have a characteristic value greater than 1 and then use the Varimax method to obtain the factors of which the number of factors is greater than 0.5. Lastly, the variables that form the factors are named separately.

After the factor analysis, tourism impact can be divided into three dimensions: (Table 2).

**Factor dimension 1:** Labeled as Economic, this dimension is comprised of eleven items. The Cronbach's  $\alpha$  of 0.947 main contents are to create local job opportunities, increase local economy revenues, forcing other industries' development through tourism.

Factor dimension 2: Labeled as Environmental Impact, this dimension is comprised of five items. The Cronbach's  $\alpha$  of 0.912 contents hope to protect local resources, gain public support and obtain government organization and community residents' attention through tourism.

**Factor dimension 3:** Labeled as social and cultural benefits, this dimension is comprised of two items. The Cronbach's  $\alpha$  of 0.736 contents are to create local residents' cognition towards local culture, understand more about local features, fostering the Penghu local

culture to be concerned and preserved and lastly to encourage the local residents to participate in cultural activities through tourism.

After the factor analysis, place attachment can be divided into two dimensions: (Table 3).

**Factor dimension 1:** Labeled as Place identity, this dimension is comprised of even items. The Cronbach's  $\alpha$  of 0.925 contents are to increase memories and experiences, as well as allow residents to think of themselves as part of the location and blend themselves into the local emotion and further build a sense of belonging towards the place.

**Factor dimension 2:** Labeled as Place dependence, this dimension is comprised of three items. The Cronbach's  $\alpha$  of 0.864 contents are to show special functional needs towards the place and create dependence to the place.

After the factor analysis, sense of community can be divided into two dimensions: (Table 4).

**Factor dimension 1:** Labeled as Participation Behavior, this dimension is comprised of ten items. The Cronbach's  $\alpha$  of 0.950 contents are the community residents voluntarily participate in community activities are willing to provide service for the community in which they reside.

**Factor dimension 2:** Labeled as Community Identity, this dimension is comprised of four items. The Cronbach's  $\alpha$  of 0.942 contents are the residents in the community think of themselves as part of the community, think that the pros and cons of the community are important to themselves and take the community pride as their own pride.

After the factor analysis, developing attitude can be divided into three dimensions: (Table 5).

**Factor dimension 1:** Labeled as Support the Development of, this dimension is comprised of eleven items. The Cronbach's  $\alpha$  of 0.907 contents are the residents support the government's policies towards casino business and believe casino can provide more job opportunities, elevate quality of life and offer positive belief evaluation and opinions.

**Factor dimension 2:** Labeled as Increase in Visitors, this dimension is comprised of five items. The Cronbach's  $\alpha$  is 0.843 and the contents are the casino industry can attract more tourists.

**Factor dimension 3:** Labeled as Tax Revenues, this dimension is comprised of two items. The Cronbach's  $\alpha$  is 0.714 and its definition shows tax revenues for the tourist and casino industries.

Table 2. Factor analysis of tourism impact.

| Factor question                                  | Economic | Environmental impact | Social and cultural benefits |
|--|----------|----------------------|------------------------------|
| Employment                                       | 0.747    |                      |                              |
| Income   | 0.844    |                      |                              |
| Sales taxes                                      | 0.717    |                      |                              |
| Property tax                                     | 0.600    |                      |                              |
| Overall local economy                            | 0.894    |                      |                              |
| Standard of living                               | 0.884    |                      |                              |
| Prices of goods and services                     | 0.892    |                      |                              |
| Quality of life                                  | 0.897    |                      |                              |
| Variety of restaurants                           | 0.766    |                      |                              |
| Variety of entertainment opportunities           | 0.766    |                      |                              |
| Variety of shopping opportunities                | 0.777    |                      |                              |
| Environmental degradation                        |          | 0.882                |                              |
| Littering in village                             |          | 0.922                |                              |
| Noise pollution                                  |          | 0.911                |                              |
| Air pollution                                    |          | 0.902                |                              |
| Congestion and crowding                          |          | 0.745                |                              |
| Drug abuse                                       |          | 0.571                |                              |
| Crime rate                                       |          | 0.571                |                              |
| Water pollution                                  |          | 0.733                |                              |
| Quality of police services                       |          |                      | 0.689                        |
| Quality of fire protection                       |          |                      | 0.832                        |
| Quality of public utilities                      |          |                      | 0.673                        |
| Meeting interesting people                       |          |                      | 0.535                        |
| Dimension reliability (α)                        | 0.947    | 0.912                | 0.736                        |
| Total reliability                                |          | 0.858                |                              |
| Eigen value                                      | 7.438    | 5.150                | 2.564                        |
| Variance explained (%)                           | 32.338   | 22.391               | 11.146                       |
| Total variance explained (%)                     |          | 65.870               |                              |
| KMO (Kaiser-Meyer-Olkin)                         |          | 0.868                |                              |
| Bartlett's test of sphericity approx. Chi-square |          | 5021.680             |                              |

 Table 3. Factor analysis of place attachment.

| Factor question   | Place identity | Place dependence |
|---|----------------|------------------|
| I feel the Otways are a pan of me   | 0.890          |                  |
| The Otways are very special to me identify strongly with the Otways                         | 0.903          |                  |
| I am very attached to the Otways  | 0.924          |                  |
| Living in the Otways says a lot about who I am.   | 0.868          |                  |
| The Otways mean a lot to me   | 0.885          |                  |
| The Otways are the best place for what I like to do   | 0.645          |                  |
| I get more satisfaction out of living in the Otways than any other place                    | 0.640          |                  |
| No other place can compare to the Otways  |                | 0.848            |
| Doing what I do in the Otways is more important to me than doing it in any other place      |                | 0.920            |
| I would not substitute any other area for doing the types of things that I do in the Otways |                | 0.916            |
| Dimension reliability (α)   | 0.925          | 0.864            |
| Total reliability   | 0              | .890             |
| Eigen value   | 4.928          | 2.791            |
| Variance explained (%)  | 49.285         | 27.908           |

Table 3. Contd.

| Total variance explained (%)                     | 77.193   |
|--|----------|
| KMO(Kaiser-Meyer-Olkin)                          | 0.886    |
| Bartlett's test of sphericity approx. Chi-square | 2258.473 |

Table 4. Factor analysis of sense of community.

| Factor question  | Participation behavior | Community identity |
|--|------------------------|--------------------|
| If the people in my neighborhood were planning something I'd think of it as something "we" were doing rather than "they" were doing. | 0.730                  |                    |
| If I needed advice about something I could go to someone in my neighborhood.   | 0.798                  |                    |
| I think I agree with most people in my neighborhood about what is important in life.   | 0.812                  |                    |
| I believe my neighbors would help me in an emergency.  | 0.834                  |                    |
| I feel loyal to the people in my neighborhood.   | 0.845                  |                    |
| borrow things and exchange favors with my neighbors.   | 0.795                  |                    |
| I would be-willing to work together with others on something to improve my neighborhood.   | 0.764                  |                    |
| A feeling of fellowship runs deep between me and other people in this neighborhood.  | 0.734                  |                    |
| regularly stop and talk with people in my neighborhood.  | 0.759                  |                    |
| Living in this neighborhood gives me a sense of community.   | 0.791                  |                    |
| Overall, I am very attracted to living in this neighborhood.   |                        | 0.881              |
| feel like I belong to this neighborhood.   |                        | 0.917              |
| visit with my neighbors in their homes.  |                        | 0.904              |
| The friendships and associations I have with other people in my neighborhood mean a lot to me.                                       |                        | 0.800              |
| Dimension reliability (α)  | 0.950                  | 0.942              |
| Total Reliability  | 0.951                  |                    |
| Eigenvalue   | 6.532                  | 3.952              |
| Variance explained (%)   | 46.654                 | 28.228             |
| Total variance explained (%)   | 74.881                 |                    |
| KMO (Kaiser-Meyer-Olkin)   | 0.918                  |                    |
| Bartlett's test of sphericity approx. Chi-square   | 3728.857               |                    |

The variables in the research are done with information collected from the researcher and the previous scholar's studies. To ensure the consistency of the questionnaire from the same group of people, we did a reliability analysis on the questionnaire. We used Cronbach's  $\alpha$  coefficient as the judgment guide; if the Cronbach's  $\alpha$  value is higher than 0.5 the result of the questionnaire is acceptable. The reliability of the questionnaire in the study, regarding to the tourism impact and development attitude, the Cronbach's  $\alpha$  coefficients both are higher than 0.8. Therefore, it means the questionnaire of the study has high consistence and homogeneity.

## Analysis on tourism impact towards developing attitude

This study used canonical correlation analysis and result in Table 6. According to the canonical correlation analysis table, we can see the canonical correlation analysis result as following: Through the result of canonical correlation analysis, we can see that the factor's canonical correlation coefficient reaches the standard,  $\rho^1=0.652864~(p<0.05).$  The results show that we can explain canonical factor of tourism impact  $\lambda_1$  as the total variance 65.2% of the canonical factor of development

 Table 5. Factor analysis of developing attitude.

| Factor question  | Support t | he development of | Increase in visitors | Tax revenues |
|--|-----------|-------------------|----------------------|--------------|
| The tourism industry provides many worthwhile employment opportunities for Penghu's residents.   |           | 0.774             |                      |              |
| On the whole, the tourism industry regulates and polices its activities well.  |           | 0.790             |                      |              |
| I believe that the tourism industry has improved the quality of life in this state.  |           | 0.854             |                      |              |
| I believe our legislators should support tourism development efforts in our state.   |           | 0.803             |                      |              |
| The tourism industry is good for Penghu's economy.   |           | 0.798             |                      |              |
| Overall the tourism industry does a good job in supporting the county in which you live.   |           | 0.811             |                      |              |
| I believe the planned expansions {Such as the new movie studio} to attract more tourists to the state is a good idea.  |           | 0.626             |                      |              |
| The attractions in our state are culturally and educationally stimulating.   |           | 0.681             |                      |              |
| The airline connections in Penghu are good because of tourism.   |           | 0.651             |                      |              |
| As a whole, tourists who come to Penghu are considerate of our states resources.   |           |                   | 0.686                |              |
| The tourists that come to Penghu are usually very friendly.  |           |                   | 0.881                |              |
| The tourists pay their "fair share" for the services provided them.  |           |                   | 0.860                |              |
| The tourists I have seen in our shopping malls and stores are generally polite.  |           |                   | 0.825                |              |
| I feel that tourists should be taxed to a greater extent than local citizens to pay for the services they use.   |           |                   |                      | 0.821        |
| I feet the members of the tourism industry (e.g., hotels/motels, restaurants, attractions, airlines, and bus transportation) should be taxed greater than other industries in our state. |           |                   |                      | 0.806        |
| The tourism industry in our slate is too commercialized.   |           |                   |                      | 0.663        |
| Dimension reliability (α)  |           | 0.907             | 0.843                | 0.714        |
| Total reliability  |           | 0                 | .775                 |              |
| Eigen value  |           | 5.247             | 2.970                | 2.010        |
| Variance explained (%)   |           | 32.792            | 18.562               | 12.563       |
| Total variance explained (%)   | 63.918    |                   |                      |              |
| KMO (Kaiser-Meyer-Olkin)   | 0.835     |                   |                      |              |
| Bartlett's test of sphericity approx. chi-square   | 2049.292  |                   |                      |              |

 Table 6. Canonical correlation analysis table for tourism impact and development attitude.

| Variable                     | Tourism impact | Variable                   | Developing attitude |  |
|------------------------------|----------------|----------------------------|---------------------|--|
| variable                     | λ <sub>1</sub> | Variable                   | η1                  |  |
| Economic                     | 0.932*         | Support the development of | 0.923*              |  |
| Environmental impact         | -0.372*        | Increase in visitors       | 0.480*              |  |
| Social and cultural benefits | 0.446*         | Tax revenues               | -0.241              |  |
| Variance extracted           | 0.386          | Variance extracted         | 0.402               |  |
| Redundancy                   | 0.252          | Redundancy                 | 0.262               |  |
|                              |                | $\rho^2$                   | 0.652864            |  |

impact  $\lambda_1$  can explain the total variance 65.2% ( $\rho^1$ ) of the first canonical factor of development  $\eta_1$  can explain the total variance 40.2% in observable variables. Therefore, the canonical factor in tourism impact  $\lambda_1$ , through  $\eta_1$  can explain the three observable variable's total variance 26.2% (overlapped variance) in development support, increasing tourists and revenue.

From another dimension, because the canonical factor in development attitude  $\eta_1$  can explain the total variance 65.2%  $(\rho^1)$  of tourism impacts canonical factor,  $\eta_1$  can explain the three observable variables' total variance 38.6% (picked variance percentage) in economy benefits, environmental impacts and social culture. The tourism impact's canonical factor  $\eta_1$ , through  $\lambda_1$  can explain the three observable variables' total variance 25.2%

(overlapped variance) in economy benefits environmental impacts and social cultures.

Regarding the structure, the tourism impact's factor  $\lambda_1$  is highly related to "economy benefits", "environmental impacts" and "social cultures". (The structural coefficients respectively are 0.932, -0.372, 0.446), and the development's canonical factor  $\eta_1$  is highly related to "development support", "increasing tourists" and "tax revenue". (The structural coefficients respectively are 0.923, 0.480, -0.241). Therefore, in terms of canonical factors, all the observable variables are related.

The opinions of residents on the effect of the development of the gaming entertainment industry on local tourism can affect the development of the industry; both positive and negative effects influence the attitudes of residents towards the development. In other words, resident support for the development of the gaming entertainment industry can be enhanced by increasing the positive effects on tourism or reducing the negative ones.

#### Analysis on place attachment and developing attitude

This study used canonical correlation analysis and result in Table 7. According to the canonical correlation analysis table, we can see the canonical correlation analysis result as following:

Through the result of canonical correlation analysis, we can see that the factor's canonical correlation coefficient reaches the standard,  $\rho^1=0.303601$  (p < 0.05). The results show that we can explain canonical factor of place attachment  $\lambda_1$  as the total variance 30.3% of the canonical factor of development attitude. The results show that place attachment is greatly related to development attitude, which supports hypothesis two.

On the overlapped index, the canonical factor of place attachment  $\lambda_1$  can explain the total variance 30.3% ( $\rho$ ) of the first canonical factor of development  $\eta_1$  can explain the total variance 30.1% in observable variables.

through  $\eta_1$  can explain the three observable variable's total variance 9.1% (overlapped variance) in development support, increasing tourists and revenue.

From another dimension, because the canonical factor in development attitude  $\eta_1$  can explain the total variance 30.3% ( $\rho^1$ ) of place attachment canonical factor,  $\eta_1$  can explain the two observable variables' total variance 36.4% (picked variance percentage) in Place identity, Place dependence. The place attachment's canonical factor  $\eta_1$ , through  $\lambda_1$  can explain the two observable variables' total variance 11.1% (overlapped variance) in place identity, place dependence.

Regarding the structure, the place attachment's factor  $\lambda_1$  is highly related to "Place identity", "Place dependence". (The structural coefficients respectively are 0.433, -0.644), and the development's canonical factor  $\eta_1$  is highly related to "development support", "increasing tourists" and "tax revenue'. (The structural coefficients respectively are 0.144, -0.999 and 0.270). Therefore, in terms of canonical factors, all the observable variables are related.

Residents' place attachment can affect their attitudes towards the development of the industry. Residents with high place dependence expect the gaming entertainment industry to attract a great number of tourists and provide for their subsistence, whereas residents with high place identity do not want their lives disturbed by too many tourists.

## Analysis on sense of community and developing attitude

This study used canonical correlation analysis and result in Table 8. According to the canonical correlation analysis table, we can see the canonical correlation analysis result as following:

Through the result of canonical correlation analysis, we can see that the factor's canonical correlation coefficient reaches the standard,  $\rho^1=0.063001$  (p < 0.05). The results show that we can explain canonical factor of sense of community  $\lambda_1$  as the total variance 6.3% of the canonical factor of development attitude. The results show that sense of community is greatly related to development attitude, which supports hypothesis two.

On the overlapped index, the canonical factor of sense of community  $\lambda_1$  can explain the total variance 6.3%  $(\rho^1)$  of the first canonical factor of development  $\eta_1$  can explain the total variance 53.1% in observable variables. Therefore, the canonical factor in sense of community  $\lambda_1$ , through  $\eta_1$  can explain the three observable variable's total variance 3.3% (overlapped variance) in development support, increasing tourists and revenue.

From another dimension, because the canonical factor in development attitude  $\eta_1$  can explain the total variance 6.3% ( $\rho^1$ ) of sense of community canonical factor,  $\eta_1$  can explain the two observable variables' total variance

**Table 7.** Canonical correlation analysis table for place attachment and developing attitude.

| Variable           | Place attachment | Variable                   | Developing attitude |  |
|--------------------|------------------|----------------------------|---------------------|--|
| Variable           | λ <sub>1</sub>   | - Variable                 | η <sub>1</sub>      |  |
| Place identity     | 0.433*           | Support the development of | 0.144               |  |
| Place dependence   | -0.644*          | Increase in visitors       | -0.999*             |  |
|                    |                  | Tax revenues               | 0.270               |  |
| Variance extracted | 0.364            | Variance extracted         | 0.301               |  |
| Redundancy         | 0.111            | Redundancy                 | 0.091               |  |
|                    |                  | $\rho^2$                   | 0.303601            |  |

Table 8. Canonical correlation analysis table for sense of community and developing attitude.

| Verieble               | Sense of community | Variable                   | Developing attitude |  |
|------------------------|--------------------|----------------------------|---------------------|--|
| Variable               | λ <sub>1</sub>     | – Variable                 | η <sub>1</sub>      |  |
| Participation behavior | 0.369*             | Support the development of | 0.350*              |  |
| Community Identity     | 0.962*             | Increase in visitors       | -0.952*             |  |
|                        |                    | Tax revenues               | -0.441*             |  |
| Variance extracted     | 0.408              | Variance extracted         | 0.531               |  |
| Redundancy             | 0.026              | Redundancy                 | 0.033               |  |
|                        |                    | $\rho^2$                   | 0.063001            |  |

40.8% (picked variance percentage) in participation behavior, community identity. The sense of community's canonical factor  $\eta_1$ , through  $\lambda_1$  can explain the two observable variables' total variance 2.6% (overlapped variance) in participation behavior, community identity.

Regarding the structure, the sense of community's factor  $\lambda_1$  is highly related to participation behavior, community identity. (The structural coefficients respectively are 0.369, 0.962), and the development's canonical factor  $\eta_1$  is highly related to development support, increasing tourists and tax revenue. (The structural coefficients respectively are 0.350, -0.952, -0.441). Therefore, in terms of canonical factors, all the observable variables are related.

The community sense also affects attitudes of residents towards gaming industry development. In particular, residents who care for and participate in their community and who have a community affinity and identification, tend to support the casino. However, in terms of the increase in the number of tourists, these residents agree with residents with high place identity in rejecting the disturbance caused by too many tourists.

#### DISCUSSION

This study performed an analysis about the tourism impact cognition and the development attitude towards

casino industry based on the residents' point of view. The study results support hypothesis one and coincides with Chuang et al. (2008) and Lin et al. (2007) research. We further analyze that the tourism impact's canonical factor, economy benefit, has the greater influence than the social culture benefits. Environmental impact has greater influence in development attitude's canonical factor, development support, than increasing tourists. In other words, the perspective from the residents' tourism impact and cognition towards casino industry do affect the development attitude towards casino industry. Therefore, as the casino industry brings in economical and social benefits, residents will support the casino industry, hoping the industry brings in more tourists, at the same time minimizing the environmental damage it may bring. The residents support the casino industry and hope it will bring more tourists.

Second, we did an analysis about place attachment towards casino industry development, which coincides with Wu (2009), Li (2008) research. We conclude that the canonical factor, place dependence, in place attachment is an important factor in development attitude influence, followed by the place identity. It also has a greater affect in the canonical factor, increasing tourists, of development attitude. In other words, the residents' attachment emotion can surely affect the attitude towards casino development. Therefore, place identity and dependence will affect the residents' attitude towards casino industry; if the residents identify with the place and

build the sense of belonging, they will not like the tourists casino brings in. In addition, local industries are the things residents rely on; as such they will hope the casino will bring more tourists.

Lastly, we did an analysis about the residents' community sense towards development attitude. The results support hypothesis three. It coincides with Chen (1992), McCool and Martin (1994) research. .We conclude the canonical factor, community identification, in sense of community has a greater affect than participation action. It also has greater influence in the canonical factor, increasing tourists, than development support and tax revenue. In other words, it shows the residents' sense of community and attitude towards casino industry. Therefore, the participation action from the residents and the community identification do affect the attitude towards casino industry development. If the residents are participating in the community activities. they will support the development of casino industry, but still do not want too many tourists or the damages they may cause. In addition, when the residents identify themselves with the community and think of themselves as part of it they will support the development, but with limited amount of tourists and damages.

In general, while developing the casino industry, we must prevent the impacts and give clear description about the pros and cons. This way the residents will have a deeper and better understanding towards the casino industry to elevate their identification of casino business and support the development of casino industry. Second, while the place attachment and community sense of residence enhance their support for the gaming entertainment industry, residents worry about the negative influence of an increased number of tourists on the local environment. This also suggests that capacity is one important consideration when developing the gaming entertainment industry. Therefore, the proper recreational carrying capacity is a vital managerial strategy for ensuring locally sustainable development while boosting tourism.

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