The Impact of Cultural Festivals on the Development of Rural Tourism - A Case Study of Da Jia Matsu Pilgrimage

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Abstract. This study aimed to impact the cultural festivals on the development of rural tourism to explore. We took the Da Jia Matsu Pilgrimage as an example, and investigated the residents of the counties and cities along the pilgrimage route. SPSS for Windows 22.0 was used to conduct the t-test, and the descriptive statistical analysis to 2072 samples. The research result is residents in different regions regarded that the pilgrimage could unite the people, improve community environments, preserve traditional culture, maintain public facilities, and increase public infrastructure. Male residents argued that the pilgrimage could only unite the people, while female residents asserted that it could increase public infrastructure and service measures, preserve traditional monuments, and improve community environments; however, it also resulted in traffic accidents and the disturbance of living spaces. The research conclusion is residents of different places and genders have different understandings in terms of the economic, social, and environmental impacts on the Da Jia Matsu Culture Festival. The research suggestion is the schedule and investigation of the places along the pilgrimage can be extended to include other cultural festivals and different impacts on stakeholders.

1. Introduction

"Matsu" is one of the most mysterious spiritual beliefs in the modern history of China. In the late Ming and the early Qing dynasties, it was introduced to Taiwan. There are numerous temples, altars, houses and boats, to worship Matsu, attracting. The Pilgrimage lasts for nine days and eight nights, and passes through various counties, such as Taichung, Changhua, Yunlin, and Chiayi. Modern cultural and artistic performances have been added to the original rituals, religious practices, and Din Tao (leader of the parade). Traditional rituals unite people's beliefs, while diversified activities allure countless audiences. At the beginning, at least 100,000 participants are attracted, which then increases to over
two million [1]. Thus, it becomes an international tourist and cultural festival of Taiwan, which is ranked third among the three major religious events in the world.

The Da Jia Matsu Pilgrimage attracts considerable visitors and creates business opportunities. Local governments and residents expect to combine local tourism resources and industrial activities to bring about rich economic growth and income. The spectacular phenomena is generated by the interactions between visitors and residents, which have favorable and unfavorable influences on the local economy, environment, and society, and produce both positive and negative impacts [2]. The key factor to the success of cultural festivals lies in the people [3]. Moreover, different regional tourism and residents’ characteristics can respond differently in influence, understand, and attitude upon impacts [4-8]. Therefore, it is beneficial to learn the impacts of tourism activities on the future development trends from the perspectives of the residents regarding genders and their places of residence [9]. The development of tourism is expected to bring positive consequence for the locals. However, negative as well as positive effects are observed during marketing events. The impacts usually revealed after the development. In terms of economy, it can lead to price volatility, increased land prices and expenditures, improved economy, added public infrastructure, enhanced transportation, increased consumption opportunities, improved basic environments, increased taxes, improved public services, and have benefits that outweigh impacts, thus, attracting public investment, creating employment opportunities, increasing tourist revenues, and stimulating the economy, and inappropriate fund planning [10-11]. Regarding society, it can unite the people, aggregate the conflict between visitors and residents, enhance community safety, increase public construction, promote cultural exchange, increase demands for historical cultural exhibitions, improve police and firefighting staffs and equipment arrangements, increase opportunities for cultural performances and activities, preserve traditions and cultural heritage, strengthen public cohesion, increase entertainment opportunities, promote regional cultural exchange, interfere with local living, boost residents’ self-esteem, improve local security, increase traffic accidents, gambling, and social events, and increase the motivation of participation [12-15]. In regard to environment, it can cause destruction to community environments by tourists, attach importance to the preservation of historical monuments, improve the appearance of communities, improve communication, traffic, power, and medical facilities, destroy public infrastructure, enhance the awareness of environmental preservation, improve the environmental quality of residents, lead to traffic congestion, oppress living spaces, and add noise and garbage pollution (the above lists have both good and bad effects, which are mixed and confusing) [16-18].

This study aims to investigate the impact of the Dajia Mazu dynasty on residents along Taichung, Changhua, Yunlin and Chiayi, and to point out trends and suggestions for future cultural festival activities.

2. Materials and Methods

2.1. Research Process

Based on the theoretical framework of [07], this research adopts both qualitative and quantitative research methods, literature analysis, field survey, and a questionnaire to collect relevant data. In addition to conducting multiple inspection and analysis methods, this study collects data in varied directions, establishes a peer review mechanism, and interprets data from multiple perspectives [19]. This research distributes the preliminary questionnaires in Taichung, Changhua, Yunlin, and Chiayi from July 1 to 31, 2015, and recovers 100 valid copies. SPSS for Windows 22.0 statistical software was used to process the data, which is classified into two parts: basic background and tourism impact.
Tourism impact is further classified into economic, social, and environmental levels. A Likert 5-point scale ranging from 5 (strongly agreed) to 1 (strongly disagreed) is adopted for the questions of each level, where a higher score implies higher satisfaction. The design of the questionnaire is based on relevant research works and coupled with expert advice and appropriate adjustment, which finalizes as follows:

2.1.1. Background information
Basic background data including gender, age, and places of residence were collected.

2.1.2. Economic impact of tourism
This part is based on [11-13]. The questionnaire contains the increase in public facilities, fluctuation of consumption prices, changes in the economic structure, growth of the basic infrastructure, the promotion of economic development, the creation of employment and business opportunities, improved traffic, and tourism revenue growth.

2.1.3. Social impact of tourism
This part is based on [9-15]. The questionnaire includes security maintenance, improved community cohesion, increased social events, destruction of living quality, the importance of historical sites, the promotion of cultural exchange, diversified activities, and enhanced cultural identity.

2.1.4. Environmental impact of tourism
This part is based on [16-18]. The questionnaire covers pollution and the destruction of community environments by garbage, enhanced environmental awareness, emphasis on historical sites, the influence on traffic and public medical facilities, more severe environmental pollution, and voluntary cleaning by citizens.

2.2. Implementation of the questionnaire
The finalized questionnaire was conducted from May to June 2016. Convenience sampling and on-the-spot inspections were carried out for the aforementioned subjects. There are 600 copies of the questionnaire distributed to each city or county, thus, a total of 2,400 copies are distributed, and 2,072 valid copies are recovered, for a valid recovery rate of 86%. EXCEL 2010 and SPSS 22.0 are employed to carry out descriptive statistics and t-test. It is found that, the Cronbach α values of each dimension of the three levels are greater than 0.600, indicating moderate reliability.

2.3. Data Analysis
Firstly, SPSS 22.0 is adopted to conduct Kaiser-Meyer-Olkin (KMO) and Bartlett’s ball testing on the economic, social, and environmental impacts of tourism. The results demonstrate that, the KMO measures of the sampling adequacy of the three variables are all greater than 0.500, and Bartlett’s test is significant (p <0.001), implying that it is suitable to conduct factor analysis. Refer to Table 1.
### Table 1 Results of reliability test and factor analysis

| Level      | Dimension                                                                 | Cronbach α |
|------------|---------------------------------------------------------------------------|------------|
| Economy    | Increase public facilities and fluctuation of consumption price           | 0.670      |
|            | Change in economic structure and growth in infrastructure                | 0.668      |
|            | Promotion of economic development and creation of employment opportunities | 0.688      |
|            | Improvement of traffic and increase in tourism revenue                    | 0.678      |
| Society    | Maintenance of public security and improvement of community cohesion      | 0.683      |
|            | Increase in social events and damage of living quality                   | 0.689      |
|            | Emphasis of historical sites and promotion of cultural exchange          | 0.693      |
|            | Diversified activities and enhancement of cultural identity              | 0.726      |
| Environment| Damage and pollution of community environment by garbage                  | 0.692      |
|            | Enhancement of environmental awareness and emphasis on historic sites    | 0.680      |
|            | Influence on transportation and public medical facilities                | 0.675      |
|            | Aggregated environmental pollution and voluntary cleaning by citizens     | 0.674      |

### 3. Results and Discussion

#### 3.1. Background information
According to the resultant statistics, there are more male subjects (55.5%) than female (44.5%). Most of the subjects live in Taichung, accounting for 28% of the total subjects, while the number of subjects in Chiayi is the least, accounting for 23%. Overall speaking, the difference in average feedback is not big. Most of the subjects are younger than 20 years old, accounting for 22.4%, while those over 61 years old are the least, at 5.8%.

#### 3.2. Impacts of cultural festivals on locals due to different places of residence and genders
Different characteristics of tourist areas may affect residents’ attitudes towards tourist development [7]; in addition, residents of different genders will have different understandings of such impacts [18, 20]. Therefore, in line with the samples, this study utilizes total average and t-testing to probe into the dimensions of economic, social, and environmental impacts, and verifies the perceptions of the residents of different places of residence and genders on the status quo of tourism impacts.

##### 3.2.1. Residents’ perceptions on the economic impact of tourism
Organization of festive events brought along abundant tourists. Shop owners tried to raise prices in order to make more profit, which in turn caused significant price fluctuation. Hosting festive events could improve public service in less developed communities. Tourists also drew in business activities, which increased job and income opportunities. Therefore, we concluded that festive events could stimulate local economics. However, work of other researcher did not show similar results [7].
### 3.2.2. Residents’ perceptions on the social impact of tourism

Matsu belief is one of the main religions in Taiwan. The annual pilgrimage saw hundreds of thousands of followers. In the agricultural past, people were frustrated over low economic, educational, medical and living qualities. The pilgrimage has remained an important source of public security and community cohesion.

![Diagram showing different regions and genders with impacts on society and economy.]

* = p > 0.01

**Figure 2. Tourists of the Perception on Economic Impact Among**

### 3.2.3. Residents’ perceptions on the environmental impact of tourism

Matsu pilgrimage originated as a cultural event, striding over 300 km on foot along the west coast. This regional event has evolved into a spectacular parade tourism. Residents of Changhua and Yunlin were more attached to the pilgrimage than the others. They were more aware of preserving historic sites while residents in urbanized Taichung cared more about traffic smoothness. Residents of Taichung and Changhua liked to participate in parade formation (Dintao) but felt disturbed by the traffic congestion. Contemporary technologies such as electronic floats were introduced in addition to the traditional firecrackers and parade bands. The amplified noise together with garbage caused great disturbance to the residents. This result was not seen in other works [7].

![Diagram showing different regions and genders with impacts on environment and economy.]

* = p > 0.01

**Figure 3. Tourists of the Perception on Social Impact Among**
Furthermore, Victor T. King & The impact of world heritage site designation on local communities - sciences, 144(20), 60–

...can increase public infrastructure and service measures, preserve traditional culture, maintain public facilities, and increase public infrastructure. Furthermore, male residents argue that the pilgrimage can only unite the people, while female residents assert that it can increase public infrastructure and service measures, preserve traditional monuments, and improve community environments, but also results in traffic accidents, disturbance of living spaces, and oppression of living spaces.

4. Conclusion
This study focused on the Da Jia Matsu Pilgrimage, and investigated the understanding of the impacts of the Pilgrimage on different places of residence and genders. The findings show that residents in different regions deem that the pilgrimage can unite the people, improve community environments, preserve traditional culture, maintain public facilities, and increase public infrastructure. Furthermore, male residents argue that the pilgrimage can only unite the people, while female residents assert that it can increase public infrastructure and service measures, preserve traditional monuments, and improve community environments, but also results in traffic accidents, disturbance of living spaces, and oppression of living spaces.

References
[1] Taiwan Tourism Events (2016). Strategies on 2015 Da Jia Matsu Pilgrimage. Source: Tourism Bureau, MOTC. Retrieved on April 8, 2017, from: http://www.eventaiwan.tw.
[2] Ap, J., & Crompton, J. L. (1998). Developing and testing a tourism impact scale. Journal of Travel Research, 37, 120–130. DOI: 10.1177/004728759803700203.
[3] T Jimura. (2011).The impact of world heritage site designation on local communities–A case study of Ogimachi, Shirakawa-mura, Japan. Tourism Management, 32, (2), 288-296.
[4] Brougham, J. E., & Butler, R. W. (1981). A segmentation analysis of resident attitudes to the social impact of tourism. Annals of Tourism Research, 8(4), 569–589. DOI: 10.1016/0160-7383(81)90042-6.
[5] Chuang, S-T. (2010). Rural tourism: Perspectives from social exchange theory. Social Behavior & Personality: An International Journal, 38(10), 1313–1322. DOI:10.2224/sbp.2010.38.10.1313.
[6] Michael Hitchcock, Victor T. King & Michael Parnwell (2008). Tourism in Southeast Asia: Challenges and New Directions. Honolulu : University of Hawaii Press.
[7] Faulkner, B., & Tideswell, C. (1997). A framework for monitoring community impacts of tourism. Journal of Sustainable Tourism, 5(1), 3–28. DOI:10.1080/09669589708667273.
[8] Haley, A. J., Snaith, T., & Miller, G. (2005). Social impacts of tourism - A case study of Bath, UK Annals of Tourism Research, 32(3), 647–668. DOI: 10.1016/j.annals.2004.10.009.
[9] Husbands, W. (1989). Social status and perception of tourism in Zambia. Annals of Tourism Research, 16(2), 237–253. DOI: 10.1016/0160-7383(89)90070-4.
[10] Fong, S-F., Lo, M-C., Songan, P., & Nair, V. (2014). The impact of local communities’ involvement and relationship quality on sustainable rural tourism in rural area, Sarawak. The moderating impact of self-efficacy. Procedia - Social and Behavioral Sciences, 144(20), 60–
65. DOI: 10.1016/j.sbspro.2014.07.274.
[11] Kaiser, H. F. (1974). An index of factorial simplicity. Psychometrika, 39(1), 31–36. DOI:10.1007/BF02291575.
[12] Ko, D., & Stewart, W. P. (2002). A structural equation model of residents’ attitudes for tourism development. Tourism Management, 23(5), 521–530. DOI: 10.1016/S0261-5177(02)00006-7.
[13] Lankford, S. V., & Howard, D. R. (1994). Developing a tourism impact attitude scale. Annals of Tourism Research, 21(1), 121–139. DOI: 10.1016/0160-7383(94)90008-6.
[14] Mathieson, A., & Wall, G. (1982). Tourism: Economic, physical and social impacts. London: Longman.
[15] Seetanah, B. (2011). Assessing the dynamic economic impact of tourism for island economies. Annals of Tourism Research, 38(1), 291–308. DOI: 10.1016/j.annals.2010.08.009.
[16] Strauss, A. L., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage.
[17] Yushan National Park Administrative Office (2002). Study on impacts and operation and management strategies of tourism of Yushan National Park, Tataka, Tonpo, and Meishan Mountain. Source: Author, Yushan National Park Administrative Office Report: Nantou.
[18] Zdorov, A. B. (2009). Comprehensive development of tourism in the countryside. Studies on Russian Economic Development, 20(4), 453–455. DOI:10.1134/S107570070904011X.
[19] Janesick, V. J. (2000). The choreography of qualitative research design: Minuets, improvisations, and crystallization. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 379–399). Thousand Oaks, CA: Sage.