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# TAO RESIDENTS' PERCEPTIONS OF SOCIAL AND CULTURAL IMPACTS OF TOURISM IN LAN-YU, TAIWAN

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TAO RESIDENTS' PERCEPTIONS OF SOCIAL AND CULTURAL IMPACTS OF  
TOURISM IN LAN-YU, TAIWAN

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A Thesis  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science  
Park, Recreation, and Tourism Management

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Cheng-Hsuan Hsu  
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Accepted by:  
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## ABSTRACT

The purpose of this study was to investigate residents' perceptions of the social and cultural impacts of tourism on Lan-Yu (Orchid Island). More specifically, this study examines Lan-Yu's aboriginal residents' (The Tao) perceptions of social and cultural impacts of tourism.

Systematic sampling and a survey questionnaire procedure was employed in this study. After the factor analysis, three underlying dimensions were found when examining Tao residents' perceptions of social and cultural impacts of tourism, and they were named: positive cultural effects, negative cultural effects, and negative social effects. The results from the multivariate analysis of variance indicated that the Tao's perceptions toward social and cultural impacts of tourism were different based on their educational level, employment status, income level, marital status, and length of residence. However, it was concluded that the Tao at this time do not perceive many impacts (either positive or negative) from the development of tourism on Lan-Yu.

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## CHAPTER 1

### INTRODUCTION

Tourism is often referred to as the world's largest industry and regarded as a means of achieving development in destination areas (Sharpley, 2002). In Manila Declaration on World Tourism, the World Tourism Organization (WTO) declares that:

world tourism can contribute to the establishment of a new international economic order that will help to eliminate the widening economic gap between developed and developing countries and ensure the steady acceleration of economic and social development and progress, in particular in developing countries. (WTO, 1980, p.1)

It seems that tourism plays a key role in improving the economic situation of most destinations. Hence, developing tourism is often seen as a means of escaping poverty and helping local development from the profits (Huang, 2003). In less developed areas, the clustering of activities and attractions stimulates co-operation and partnerships between communities in local and neighboring regions and serves as a vehicle for the stimulation of economic development through tourism (Briedenhann & Wickens, 2004).

However, tourism development causes impacts inevitably. Researchers tend to focus on only economic impacts that accompany tourism development. Nowadays, social, cultural and physical environment impacts have been suggested to receive equal attention with the economic impacts from tourism. Some of those impacts are beneficial while others are not. Whether the impact is viewed as positive or negative depends on the individual and the interest group with which he or she is associated (Gartner, 1996).

In the past ten years, there has been a tremendous growth in research on aboriginal cultures. Much of aboriginal culture related research is focused on impacts

of tourism on aboriginal cultures. As Greenwood (1989) mentioned, for instance, local culture, such as New Guinea aboriginal art and ritual Eskimo sculpture or Balinese dancing, has been altered, and often destroyed, by being treated as a tourist attraction. Picard (1997) emphasized that Balinese culture remains the same on the surface, but its inner meaning and characteristics have been changed in the face of the Balinese government's tourism policy for coping with more tourists' needs.

A common theme in the anthropological study of tourism is the considerable cultural change brought by the arrival of tourists (McKean, 1989). According to McKean, normal assumptions include: "1. changes are brought about by the intrusion of an external, usually superordinate sociocultural system, into a weaker, receiving culture; 2. changes are generally destructive to the indigenous tradition; 3. the changes will lead to a homogeneous culture as ethnic or local identity is subsumed under the aegis of a technologically-advanced industrial system, a national and multinational bureaucracy a consumer-oriented economy, and jet-age life-style" (p. 120).

Lan-Yu, which is also called Orchid Island, is located on the northern boundary of Southeast Asia forest system. It is one of the offshore islands of Taiwan. Lan-Yu is an oceanic volcanic island with special geographic mountainous environment, and it is also the home of many unique plants and varieties of vegetation. Lan-Yu is the only place in Taiwan where tropical rain forest plants can be seen. The ancestors of the Tao people, also called the Yami, who reside in Lan-Yu emigrated from Batan Island about eight hundred years ago. They were typical oceanic island people and understood the rhythm of the ocean and emphasized fishing. The catching of flying fish and the performances associated with religious ceremonies not only represent their culture but is also an

important aspect of their economic activities through tourist visits to the island. Until now, the Tao still have their own unique architecture and traditional religious ceremonies. This makes them unique among the aborigine tribes of Taiwan (CCA Taiwan's Potential World Heritage Website, 2003).

Through centuries of colonization, indigenous tribes in Taiwan have faced severe cultural repression because of the government's refusal to accept ethnic, racial, and cultural diversity. Indigenous inhabitants of Taiwan have been treated as second-class citizens (Ericsson, 2004). Aboriginal tribes have greatly fallen behind in not only cultural preservation but also, economic benefits. As a result, these tribes today have always given people an impression of poverty these days. It was not until the 1980's, due to the revival of ethnic consciousness and the trend of the combination of tourism and local development, the Taiwanese government started to encouraged tourism development in aboriginal tribal areas (Munsterhjelm, 2001). The idea of aboriginal tourism is currently widespread in the tourism industry in Taiwan. Overnight "aboriginal culture" has become a fad. One common scene is tourists being treated to beautiful indigenous music and dance in performance centers in major cities but one can often see aboriginal troupes performing at celebratory or ceremonial activities (Cheng, 1994).

#### *Statement of Purpose*

The purpose of this study is to investigate residents' perceptions of the impacts of tourism in Lan-Yu. More specifically, this study will examine Lan-Yu's aboriginal residents', The Tao, perceptions of social and cultural impacts of tourism.

### *Research Questions*

The following research questions are the focus of this study:

Research Question 1: What are the underlying dimensions of the perceived social and cultural impacts of tourism of the Tao living in Lan-Yu?

Research Question 2: How do Lan-Yu's demographic characteristics (gender, educational level, employment status, place of employment, income level, age, length of residence, and village of residence) influence the Tao's perceptions of social and cultural impacts of tourism?

### *Hypotheses*

Hypothesis 1.1: The dimensions of socio-cultural impacts of tourism will differ by gender of the Tao residents.

Hypothesis 1.2: The dimensions of socio-cultural impacts of tourism will differ by educational level of the Tao residents.

Hypothesis 1.3: The dimensions of socio-cultural impacts of tourism will differ by employment status of the Tao residents.

Hypothesis 1.4: The dimensions of social and cultural impacts of tourism will differ by place of employment of the Tao residents.

Hypothesis 1.5: The dimensions of social and cultural impacts of tourism will differ by income level of the Tao residents.

Hypothesis 1.6: The dimensions of social and cultural impacts of tourism will differ by marital status of the Tao residents.

Hypothesis 1.7: The dimensions of social and cultural impacts of tourism will differ by age of the Tao residents.

Hypothesis 1.8: The dimensions of social and cultural impacts of tourism will differ by length of residence of the Tao residents.

Hypothesis 1.9: The dimensions of social and cultural impacts of tourism will differ by village of the Tao residents.

#### *Delimitations*

This study was delimited to people of the Tao 18 years of age or older. The study was further delimited to the Tao people now living on the Lan-Yu of Taiwan.

#### *Limitations*

The results of this study will be valuable in understanding the Tao people's perceptions of social and cultural impacts of tourism. The study was limited because the findings of this study may not be generalized to other populations residing outside the Lan-Yu.

#### *Definitions of Terms*

For the purpose of this study, the following terms have been used:

Perceptions and Attitudes of Residents toward tourism impacts: Residents' views, perspectives, and reactions, both positive and negative toward tourism. Both Ap (1992) and Lankford (1994) indicate that the perceptions and attitudes of residents toward the impacts of tourism tend to be a key planning and policy consideration for the successful development and operation of existing and future projects.

Taiwanese Aborigines/Aboriginal people/Indigenous people: Taiwanese aborigines are the indigenous people of Taiwan. They are descended from the inhabitants of Taiwan who lived on the islands before Han immigration in the 1,600s. There are a total of twelve aboriginal ethnic groups officially recognized by the Taiwanese government live

in mountain areas: Amis (Ami, Pangcah), Atayal (Tayal, Tayan), Bunun, Kavalan, Paiwan, Puyuma, Rukai, Saisiyat (Saisiat), Tao (Yami), Thao, Tsou (Cou), and Sediq. The total population of these twelve peoples is around 440,000 as of 2004, which contribute approximately 2% of Taiwan's population (n.d. Wikipedia).

Tourism Development: According to Gartner (1996), tourism development is not supposed to be referred to as a physical phenomenon; development should be treated as an evolutionary process including noticeable physical, economic, or social restructuring. He believes that appropriate tourism development should be defined as “a process which, when observed at any stage, has served to increase the quality of life for the tourist and host culture alike (p. 28).”

Tao Residents: People who domiciled in Lan-Yu, regardless of length of residence.

Social and Cultural Impacts of Tourism: “the ways in which tourism is contributing to changes in value systems, individual behavior, family relationships collective lifestyles, moral conduct, creative expressions, traditional ceremonies and community organization” (Pizam & Milman, 1984, p.11).

### *Summary*

This chapter discussed the purpose of this research study and its two research questions. The nine hypotheses were developed along with the two research questions. Also this chapter presented the possible delimitations and limitations of this particular study. Chapter two will review the relevant literature including an overview of tourism impact literature, residents’ attitudes toward tourism development literature, perceived social and cultural impacts of tourism development literature, and theoretical framework of this study.

CHAPTER 2  
LITERATURE REVIEW

*Introduction*

This review of literature relates to the purpose of the study and the two research questions: 1) What are the underlying dimensions of the perceived social and cultural impacts of tourism on the Tao people living on Lan-Yu?, and 2) How do Lan-Yu's demographic characteristics influence the Tao's perceptions of social and cultural impacts of tourism?

The content of this chapter revolves around the tourism literature which deals with the perceived social and cultural impact of tourism, particularly from the hosts' or residents' perspectives. The chapter is divided into the following sections:

1. An overview of tourism impacts literature
2. Residents' attitude toward tourism development literature
3. Perceived Social and cultural impacts of tourism development literature
4. Theoretical framework for this study of the Tao and tourism in Lan-Yu

*An Overview of Tourism Impacts Literature*

During tourism development planning, impacts (not including positive economic projections) are often disregarded or have not received enough consideration. Yet impacts on resident peoples are crucial enough most of the time that they are a factor in determining the quality of life for host communities and/or the lasting viability of development plans. Therefore, it is suggested that social and cultural impacts of tourism

should receive great attention from individuals involved with decision making about tourism planning and development (Gartner, 1996). In general, tourism impacts can be classified into three dimensions: economic impacts, environmental impacts, and social and cultural impacts (Gartner, 1996; Mathieson & Wall, 1982; Pizam & Milman, 1984).

It has been cited that economic impacts from tourism have improved the local economy (Perdue, Long, & Allen, 1990), improved employment opportunities (Belisle & Hoy, 1980; Liu & Var, 1986; Milman & Pizam, 1988), improved investment, development, and infrastructure spending in the community (Belisle & Hoy, 1980; Sheldon & Var, 1984; Milman & Pizam, 1988), increased cost of living and property taxes (Liu & Var, 1986; Perdue et al., 1990), and increased price of land and housing (Pizam, 1978; Perdue et al., 1990). Environmental impacts associated with tourism have included having preserved natural environments (Belisle & Hoy, 1980; Liu & Var, 1986; Liu, Sheldon, & Var, 1987), improved the area's appearance (Perdue et al., 1990), preserved historic buildings and monuments (Sheldon & Var, 1984; Liu et al., 1987), increased traffic congestion (Pizam, 1978; Brougham & Butler, 1981; Sheldon & Var, 1984; Liu & Var, 1986; Perdue et al., 1990), increased noise, pollution, overcrowding, and litter (Pizam, 1978; Brougham & Butler, 1981; Liu & Var, 1986). Social and cultural impacts from tourism included positive outcomes such as having improved the quality of life in the host community (Pizam, 1978; Millman & Pizam, 1988; Perdue, et al., 1990), improved understanding and image of difference cultures (Pizam, 1978; Sheldon & Var, 1984; Liu & Var, 1986, Liu et al., 1987; Millman & Pizam, 1988), promoted cultural exchange (Belisle & Hoy, 1980; Sheldon & Var, 1984; Liu & Var, 1986; Liu et al., 1987;), preserved cultural identity of host population, increased demand for historical and



cultural exhibits (Liu & Var, 1986). Additionally, there have been negative outcomes from tourism as well such as increased prostitution (Belisle & Hoy, 1980; Liu & Var, 1986; Liu et al., 1987), increased alcoholism and smuggling (Milman & Pizam, 1988), created of a phony folk culture (Brougham & Butler, 1981).

#### *Residents' Attitudes toward Tourism Development Literature*

It is proposed that tourism development is not supposed to be referred to as a physical phenomenon only; it should be treated as an evolutionary process which includes noticeable physical, economic, or social restructuring (Gartner, 1996). Gartner believes that appropriate tourism development should be defined as “a process which, when observed at any stage, has served to increase the quality of life for the tourist and host culture alike (p. 28).” Since developing tourism is often referred to as a means of helping local development from the profits, tourism development is now often being recognized as an important component of economic development programs around the world (Huang, 2003). Many tourism planners have tried hard to understand how the public perceives the tourism industry so as to gain support for tourism projects and initiatives (Harrill, 2004). In general, there is a considerable amount of literature investigating local residents' attitudes and perceptions for the reason that these are “important planning and policy considerations to successful development, marketing, and operation of existing and future tourism programs and projects” (Ap, 1992, p. 665).

From a socio-demographic perspective, in a study using segmentation analysis examining residents' attitudes toward tourism in Scotland, Brougham and Butler (1981) found significant differences in residents' attitudes related to local and personal characteristics, with tourist contact, length of residence, age and language. In a study

measuring residents' attachment levels in a host community in New Braunfels, Texas, Um and Crompton (1987) found that the more attached a resident was to his or her community in terms of birthplace, heritage, and length of residence, the less favorably he or she perceived tourism impacts. Similarly, from the results of their study of Kusadasi, Turkey, Cavus and Tanrisevdi (2002) also found a significant relationship existed between age and length of residence and attitude toward tourism development. In terms of length of residence, Girard and Gartner (1993) discovered that both long-term and short-term second homeowners appreciated the availability of goods and services from increased tourism, but long-term residents tended not want to see an increase in tourism development in their study in Wisconsin. Supporting Girard and Gartner's (1993) findings, McCool and Martin (1994) found that long-term residents had less positive perception of tourism than did short-term residents. Likewise, Snaith and Haley's (1999) found that the shorter the length of residence that residents had in their communities, the more positive residents' opinions would be about tourism development. Sheldon and Var (1984), in a study of North Wales, found that lifelong residents and Welsh language speakers tended to be more sensitive to social and cultural impacts. They suggested that residents' attitudes toward tourism development were culturally bound. In contrast, both Liu and Var's (1986) study of Hawaii and Allen, Hafer, Long, and Perdue's (1993) study of 10 rural Colorado towns found no significant difference in length of residence on attitudes toward tourism development. The findings of Perdue et al.'s (1990) study demonstrated that when personal benefits from tourism development were controlled, perceptions of impacts from tourism development were unrelated to socio-demographic

characteristics. They also found that support for additional development was positively or negatively related to the perceived positive or negative impacts of tourism.

Educational level also seems to affect residents' attitudes toward tourism impacts. Caneday and Zeiger (1991) found that there was a direct and significant correlation between number of years of education and tourism impacts. Seid (1994) discovered that residents with high school education had more positive perceptions of tourism impacts than residents with college education. Haralambopoulos and Pizam (1996) also suggested that educational level had an influence on residents' attitudes toward tourism impacts. They found that the more educated the residents were, the more positive perceptions and attitudes they had toward tourism. Milman and Pizam (1988), however, concluded that residents' support for tourism did not vary significantly among different educational levels.

It is suggested that age has also played a role in determining residents' attitudes toward tourism development and should receive more attention (Harrill, 2004). Cavus and Tanrisevdi (2002) noticed that older residents were likely to have more negative perceptions toward tourism development in their study of investigating residents' attitudes toward tourism in Turkey while Tomljenovic and Faulkner (1999) discovered the opposite. Regarding gender, Mason and Cheyne (2000) found that even though female residents recognized positive tourism impacts, they had a tendency to being against tourism development than men when examining perceived negative tourism impacts, such as increase in traffic, noise and crime. Similarly, in a study of Charleston, South Carolina, Harrill and Potts (2003) also noticed that gender played an important

predictor while examining perceived economic benefits of tourism. They concluded that women tended to be more negatively disposed toward tourism development than men.

Distance of residents' home from the tourist zone is also found to be a factor affecting residents' attitude toward tourism development. The findings in Belisle and Hoy's (1980) study of Santa Marta, Columbia, showed that as distanced from the tourist zone increases, residents perceived less positive impacts from development. Similarly, Harrill and Potts (2003) pointed out that the neighborhood (South of Broad), located in the tourism core, received the most negative tourism impacts while other neighborhoods, located farther from the tourism core, received more positive tourism impacts. Pizam (1978) found that a destination with a heavy concentration of tourism facilities and services caused negative attitudes toward tourism development.

Moreover, strong evidence shows that economic dependency is also another factor affecting residents' attitudes toward tourism development. In a study of sociocultural impacts of tourism in three host communities in Scandinavia, Haukeland (1984) found that residents engaging in traditional industries, such as manufacturing, strongly received negative attitudes toward tourism. In addition, they found that those perceived negative attitudes toward tourism were directly related to levels of tourism development. In a study of a gambling community, Caneday and Zeiger (1991) found that the more money residents generated in tourism-dependent jobs, the less likely they were to recognize negative impacts toward tourism. The findings of the study by Allen et al. (1993) suggested that residents' attitudes toward tourism development in communities with both economic and tourism development and low economic and tourism development were more positive than those residents of the low/high or high/low

economic and tourism development communities. The study results by Martin, McGuire, and Allen (1998) suggested that most communities and individuals who did not economically benefit from tourism growth were inclined not to support further tourism development. Interestingly, in a recent study of two Ghanaian towns, however, Teye, Sonmez, and Sirakaya (2002) found that individuals working in related businesses had negative attitudes toward the tourism industry.

*Perceived Social and Cultural Impacts of Tourism Development Literature*

While the majority of studies about impacts of tourism development have often been focused on economic impacts accompanying tourism development, a great number of studies which examine the social and cultural impacts of tourism recently have emerged (Brougham & Butler, 1981; Milman & Pizam, 1988; Dogan, 1989; Ap, 1990; Brunt & Courtney, 1999; King, Pizam & Milman, 1993). Different from economic benefits which may largely improve the quality of life of residents, sociocultural impacts may not always be as favorable (Liu et al., 1987). Pizam and Milman (1984) addressed social and cultural impacts of tourism in their study as “the ways in which tourism is contributing to changes in value systems, individual behavior, family relationships collective lifestyles, moral conduct, creative expressions, traditional ceremonies and community organization” (p.11). Dogan (1989) also confirmed that tourism development has an influence on the sociocultural characteristics of residents such as habits, beliefs, values, daily routines, and social lives. Despite the fact that there are a variety of positive social and cultural effects such as improved community services; recreational and cultural facilities, additional park, lands, and encouragement of cultural activities (Brunt & Courtney, 1999), the development of tourism may result in a number of negative

effects from tourism, such as a decline in cultural traditions, an increase in crime rates, increased materialism, crowding, and social conflicts (Dogan, 1989).

### *Perceived Social Impacts*

Sharpley (1994) once mentioned that social impacts can be described as those which have a more instant influence on both host and tourists communities regarding their quality of life. Social impacts are even suggested as being studied before other type of impacts for the reason that they are so significant from a community (Krippendorf, 1987). From a tourism development perspective, Mathieson and Wall (1982) suggested that tourism changed the internal structure of the community. The community would be divided into those who had or had no relationship with tourists or tourism. Krippendorf (1987) argued tourism had colonialist characteristics which may deprive local populations of autonomous decision-making. Crompton and Sanderson (1990) suggested that employment in tourism demanded flexible working patterns which could lead to a break up in gender segregation. Similarly, Urry (1991) reported that there were likely to be more working opportunities for women in tourism because tourism provided many of them with a greater degree of economic independence. Harrison (1992) then found that tourism provided more employment opportunities and brought social changes in the community. Along with employment opportunities aspect, Sharpley (1994) noted that tourism helped improve quality of life through infrastructural improvements, and they also indicated that young people were more likely drawn to areas of tourism by employment opportunities and the presence of tourists. Burns and Holden (1995) found that tourism provided socioeconomic benefits, but at the same time, it also caused dependency and reinforcement of social discrepancies.

Concerning a perspective from interaction between tourists and residents, Matheison and Wall (1982) concluded that tourism contributed to a perception of an increase in crime. Likewise, Pizam, Reichel, and Stein (1982) concluded that tourism was a potential determinant of crime in their study of finding relationship between tourism and crime. In terms of language, Murphy (1985) found that languages were learnt through the interaction between tourists and hosts. Sharpley (1994) found that hosts would adopt foreign languages through necessity as well. Ryan (1991), however, concluded that tourists would bring erosion on local language/dialect. From other aspects, Sharpley (1994) found tourism contributed to the preservation of religious and historic buildings as positive effects; on the other hand, tourism may also cause negative impacts such as commoditization of religion and resulting conflicts. McIntosh, Goeldner, and Ritchie (1995) found the economic gaps arising between the hosts and tourists and inflated prices generated local resentment. In a study of Samo, a Greek island, Haralambopoulous and Pizam's (1996) recognized high prices, drug use, vandalism, violence and sexual harassment as negative impacts which accompanied by tourism.

#### *Perceived Cultural Impacts*

In contrast with social impacts, cultural impacts have a tendency to lead to a longer-term, gradual transformation in a society's beliefs, values, and cultural practice (Sharpley, 1994). Burns and Holden (1995) argued that diverse cultures were viewed as a commercial resource in order to draw tourists into hosts' communities. No doubt, a number of tourists tend to be attracted to a destination where the culture within it is different from theirs. Nevertheless, when tourists come into the hosts' community and get in touch with hosts, acculturation (defined as the modification of the culture of a

group or individual as a result of contact with a different culture) frequently happens. In a study examining tourism in Anthropological perspective, Nunez (1989) concluded that acculturation was likely to occur when two cultures take on aspects of each other. By supporting Nunez's thought, Murphy (1985) found residents' attitudes changed as an indication of acculturation occurring. Likewise, Collins (1978) reported that hosts behavior can be changed temporarily when they got into contact with tourists. But, sometimes, tourism brings more changes than others on residents' behaviors and attitudes. Research has shown that tourism does not just simply bring changes into society, an example being British society; more seriously, tourism destroys the traditional British culture (Browne, 1993). In addition, it is found that cultural commodification (defined as the transformation of what is normally a non-commodity into a commodity) recognized as a cultural impact of tourism (Cohen, 1988). A study of a Vermont village by Jordan (1980) is an example showing tourism can result in cultural commoditization. Jordan found that native residents tried to save their economic future by developing a phony folk culture, a stereotypical cultural built for tourists. Residents preserved selected aspects of their traditional culture for attracting and demonstrating for tourists. On the other hand, Gilbert and Clark (1997) believed tourism encouraged cultural activities and improved cultural heritage in their community.

#### *Theoretical Framework for This Study of the Tao and Tourism in Lan-Yu*

##### *Social Exchange Theory*

Over the past few decades, the attitudes and perceptions of local residents toward tourism development and to the impacts of tourism have been extensively studied. These literature studying residents' attitude toward tourism impacts have been based on the



theory of expectancy-value modes (Lindberg and Johnson, 1997), the growth machine theory (Martin et al., 1998; Green, Marcouiller, Deller, Erkkila, & Sumathi, 1996); Madrigal, 1995; Canan & Hennessy, 1989), dependency theory (Priester, 1989), and the social exchange theory (Andereck, Valentine, Knopf, & Vogt, 2005; Teye et al., 2002; Jurowski, Uysal, & Williams, 1997; Hernandez, Cohen, & Garcia, 1996; Getz, 1994, Madrigal, 1993; Ap, 1992; 1990; Perdue et al., 1990).

By using social exchange theory, Perdue et al. (1990) examined the relationships between those perceived impacts and resident support for additional tourism development and specific development policies and found that when controlling for personal benefits from tourism development, perceptions of its impact were unrelated to socio-demographic characteristics. Also, the authors found that support for additional tourism development would be positively related to the perceived positive impacts of tourism and negatively related to the perceived negative impacts.

Following the same theory, Ap (1992) described social exchange theory as “a general sociological theory concerned with understanding the exchange of resources between individuals and groups in an interaction situation.” (p.668) He also pointed out that resources can be any concrete or symbolic item. That is, resources may be material, social, or psychological in nature. Ap stated that the goal of developing and attracting tourism to a community is to achieve outcomes that find the best balance of benefits and costs for both hosts and guests, and found that if residents evaluate tourism in terms of social exchange, which means they evaluate tourism regarding expected benefits or costs obtained in return for the services they provide. For this reason, Ap assumed the purpose that host residents look for tourism development for their community is to satisfy their

economic, social, and psychological needs and to improve the community's well-being. Before individuals choose to participate in an exchange, they must have evaluated the costs and the benefits of such an exchange. Ap suggested when exchange of resources (expressed in terms of power) between residents and tourists is high and balanced or high for the host actor (a person, a role-occupant or a group that acts as a single unit) in an unbalanced relation, tourism impacts tend to be viewed positively by residents. When exchange of resources is low in either an unbalanced or balanced exchange relation, the impacts are viewed negatively by residents.

In a similar manner, in a study developing a theoretical analysis of host community resident reactions to tourism, Jurowski et al. (1997) demonstrated that "the perception of tourism's impact is a result of assessing benefits and costs and that this evaluation is clearly influenced by that which residents value" (p.8). The authors believed that if taking economic gain as an exchange item, the potential for economic gain directly and positively affects residents' support. They found that the economic gain variables had the strongest influence on social impacts but had very little influence on environmental impact, and they also found that attached residents appear to positively evaluate social and economic impacts but negatively evaluate the environmental impacts.

In a study of examining the attitudes of residents toward tourism development in two Ghanaian towns, Teye et al. (2002) found that residents' expectations from tourism development were not met and also individuals working in related businesses show negative attitudes toward tourism industry. Their study results suggested that it is not simply the existence of an exchange that is important, but its nature and value that have an influence on attitudes and perceptions (Haley, Snaith, & Miller, 2005).

Social exchange theory, as its name indicates, regards social relationships primarily as exchanges of goods and services among person. According to Michener and DeLamater (1999) social exchange theory assumes that “individuals have freedom of choice and often face social situations in which they must choose among alternative actions. Any action provides some rewards and entails some costs. There are many kinds of socially mediated rewards — money goods, services, prestige or status, approval by others, and the like. The theory posits that individuals are hedonistic – they try to maximize rewards and minimize costs.” (p. 10) As a result, people choose actions that produce good profits and avoid actions that produce poor profits (profits = rewards – costs). As applied to residents’ perceptions and attitudes toward tourism, the social exchange theory specified that residents “seek benefits in exchange for something estimated as equal to the benefits they offer in return, such as resources provided to tourism developers, tour operators, and tourists” (Teye et al., 2002, p. 670).

Chou (1989) reported that the Tao have recognized both benefits and costs after Lan-Yu had opened to the public for tourism. Benefits from tourism have reported by the Tao residents as having improved infrastructure in Lan-Yu, increased residents’ income, encourage arts and crafts, and increased cultural exchange. However, costs from tourism have also been reported by the Tao residents as having increased contagious diseases, increased traffic noise, and increased litter. The Tao residents reported that some tourists walk in and take picture them and their traditional houses without permission and disrespect their life style. Others have complained that the interest groups have received most of the economic benefits from tourism (Chou, 1989). For the purpose of investigating the residents’ perceptions of the social and cultural impacts of tourism in

Lan-Yu, the social exchange theory is considered as an appropriate framework for this study.

### *Summary*

The literature relevant to this research study was discussed in this chapter. This chapter presented the literature associated with tourism impact in general, resident attitude toward tourism development, perceived social and cultural impacts of tourism development, and the theoretical framework for this research study. The next chapter will present the research methods used to conduct this study and procedures employed to its research questions.

## CHAPTER 3

### METHODS

#### *Introduction*

The purpose of this study was to investigate the aboriginal residents' perceptions of tourism impacts in Lan-Yu, particularly, their perceptions of social and cultural impacts of tourism and determined if their perceptions differ based on demographic characteristics. The purpose of this chapter is to describe the methods of research and procedures employed to research questions. This chapter is divided into the following sections:

1. Study area
2. Study population
3. Sampling
4. Survey Instrument
5. Data collection
6. Operationalization of Variables and Measurement
7. Data analysis

#### *Study Area*

The study area selected was Lan-Yu, Taitung County, Taiwan. Lan-Yu is an island with the majority of the population being the Tao (Yami), one of the twelve aboriginal tribes in Taiwan. The Tao is the only oceanic tribe in Taiwan; therefore, their cultural is kept perfectly. Lan-Yu was formerly known as the "Red Head Island". The

Tao people call it “Ponso No Tauo” (the island of human). Lan-Yu is a small volcanic island located 40 nautical miles southeast of Taiwan with an area of 45.74 square kilometers. The information provided by the Tourism Bureau, R.O.C. (Taiwan) website gives a brief introduction of Lan-Yu (2002):

### *Taiwan's Offshore Islands*

Taiwan is located along the southeast coast of the Asian continent, on the fault line where the Euro-Asian and Philippine continental plates meet. This unique geographic location and frequent seismic activity, not only created an extremely diversified topography and natural



**Figure 3.1** Map of Lan-Yu and Taiwan

environment on Taiwan, but also resulted in the diverse characters of its off-shore islands. Main off-shore of islands consist of Penghu, Green Island, Orchid Island, Kinmen, Matsu, Turtle Island and Little Liuquiu as their locations, topographical characteristics, and human activity differs, each has its own unique scenery and culture. Therefore, each island offers something different, satisfying the varying needs of visitors, whether these have a natural, historical, or cultural nature, or

simply consist of sightseeing, snorkeling, or sport fishing (Tourism Bureau, R.O.C, Taiwan, 2006).

### *Lan-Yu*

Lan-Yu, or Orchid Island, is situated off the southeastern coast of Taiwan and, like Green Island, its neighbor to the north, was raised from the sea floor by the accumulation of volcanic lava. It has a moist and rainy climate, and its mountain areas (which occupy most of the island) are covered with dense rain forests that are filled with a great variety of plant and animal life. Coral reefs decorate the surrounding seas, and the Japan Current which flows past brings in large numbers of fish. This makes Orchid Island a paradise for fishermen and skin divers. The island is inhabited mainly by the Tao (Yami) people, the most primitive of Taiwan's aborigines, who still retain much of their traditional culture and lifestyle. Their traditional stone houses are built mostly underground to avoid extremes of temperature as well as the ravages of typhoons, and their Flying Fish and Boat Launching festivals are seen nowhere else on earth. In addition to savoring the beautiful island scenery, during a trip of Lan-Yu you can also enjoy a glimpse into the fascinating Yami culture. (Tourism Bureau, R.O.C, Taiwan, 2006)

### *Study Population*

The study population targeted one of the Taiwanese aboriginal people, the Tao, who currently reside on Lan-Yu, Taiwan. The ancestors of the Tao migrated to Lan-Yu about eight hundred years ago from the Batan Archipelago of the Philippines, but they continued to communicate with their homeland over the centuries. For example, continuing to trade pigs and goats for weapons, beads, and gold. After a war in which the

majority of the Tao visitors on Bantan were killed, the trade ended approximately three hundred years ago; however, the languages spoken by the Tao and Batanese are still mutually understandable. Since 1946, Lan-Yu has been a part of Taiwan, where it is classified as a township which includes six villages: Imourud, Iratay, Yayu, Iraralai, Iranumilk, and Ivarinu. There is a village head in each of the villages and a mayor in the Lan-Yu (Academia Sinica, 1998; Lan-Yu Island Comprehensive Information Web, 2002).

The website by Council of Indigenous Peoples by Taiwanese Executive Yuan (2006) provides an overview of the Tao's tradition and culture:

Located on Lan-Yu island of Taitung, the Yami are the only oceanic ethnic group in Taiwan. Their traditional attire is the simplest among Taiwan's indigenous peoples. In the Yami culture, there is no leadership system. If there is a dispute between people, the relatives of the disputants are called to solve it. The fathers or men's groups as well as the fishing community organize the community affairs. The techniques of carving boats, making silvery utensils, pottery, and mud dolls are the most characteristic features of Yami culture. The Yami have basements in their dwellings. The homes are warm in the winter and cool in the summer even with a strong wind blowing. The rituals are held in accordance to the activities of capturing flying fish. The Yami regard the flying fish as a sacred being. Yami women use their hair a great deal when they dance, as it is seen as very attractive and charming. The dancing of the men presents both power and strength. (Yami, 2006)

As of April, 2006, the total population of the Tao on Lan-Yu was recorded as 3,400, which contributes approximately 90% of the total population of the island. In



terms of gender, males contribute 1,804 while females contribute 1,596. Among the Tao, an estimate of the age structure showed that the age group of 0 to 4 years old consisted of 6.6%; the age group of 5 to 19 years old consisted of 24%; the age group of 20 to 49 years old consisted of 49%; and the age group of 50 years old and up consisted of 20% (Household Registration Office, Lan-Yu Town, 2006).

### *Sampling*

In order to investigate the aboriginal residents' perceptions of social and cultural impact of tourism in Lan-Yu, only adult residents currently living in the community were sampled. Systematic sampling was the sampling procedure employed in this study. This procedure consisted of the researcher approaching every second person or group who appeared to be 18 years and over entering or passing by the convenient stores and local restaurants in each village on Lan-Yu. Rather than asking them to volunteer to participate in the study. The sampling strategy was conducted for the purpose of increasing the diversity of the sample. Generally, systematic sampling is more convenient than simple random sampling in a community setting. "By now, debates over the relative merits of simple random sampling and systematic sampling have been resolved largely in favor of the latter, simpler method. Empirically, the results are virtually identical." "..., systematic sampling, in some instances, is slightly more accurate than simple random sampling." (Babbie, 2004, p. 205) It is simpler to conduct the sampling by selecting every *K*th person in the field than to use a table of random digits. This approach is popular among scientists to select random samples (Frankfort-Nachmias & Nachmias, 1996). "Systematic samples are also more amenable for use with very large populations or when large samples are to be selected." (p. 187) In addition, in order to

avoid any possible human bias in using systematic sampling, Babbie suggests that the first element should be selected at random.

The sample size of this study was targeted at 345. Statistically, the sample size is large enough, because in social science, the baseline of the size of sample is 10 times of the number of variables dealt with in the study (Kachigan, 1986).

### *Survey Instrument*

The items identified to be included in the survey instrument were generated from the literature review. The survey questions were modified from part of a previous study dealing with residents' attitudes toward tourism impacts in Hawaii by Liu and Var (1986) and previous research of examining residents' attitudes toward tourism development in two Ghanaian towns by Teye et al. (2002). The survey questionnaire consisted of three primary sections. Section one consists of 21 statements measuring residents' perceptions toward social and cultural impacts of tourism which were modified from the study by Liu and Var. Section two contained 21 statements assessing residents' attitudes toward tourism development which were modified from the study by Teye et al.. Section three focused on social demographic factors regarding participants' gender, educational level, employment status, place of employment, household income, marital status, age, length of residence, and days of interacting with tourists per week, and village of residence.

Since it was expected that English may not be the primary language of communication for most residents, all survey materials were translated into the only written language used on Lan-Yu: traditional Chinese. The back-translation process for traditional Chinese version involved the researcher and two other bilingual individuals. Then, the Chinese version of the questionnaire was pilot tested for an evaluation of the

content and clarity by several reviewers who have Chinese background. When doing pilot study, the reliability was examined using the Cronbach's alpha for the socio-cultural impacts of tourism and attitudes toward tourism development measure. Modifications were made into the Chinese version of the questionnaire based on reviewers' suggestions and opinions before the final questionnaire was implemented.

In addition to the socio-demographic section, items in the survey questionnaire were grouped into two different scales, social-cultural impact of tourism (items 1 to 21) and attitudes toward tourism (items 22 to 42), so as to yield measures on two different perceptions of tourism impact on residents of Lan-Yu. A 5-point Likert scale was used as the measure for these scales. For each of the 42 items on the questionnaire, participants were required to record their responses to the questions on the social and cultural impacts of tourism and attitudes toward tourism development on this 5-point rating scale. The value of each response for items on the questionnaire is as follows: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. A copy of the English version and that of the Chinese version of questionnaires are found in Appendix C and Appendix D.

#### *Data Collection*

The purpose of this study is to investigate the social and cultural impacts of tourism on Lan-Yu, as perceived by its aboriginal residents. This investigation involved distributing a questionnaire to a systematic sample of Lan-Yu residents who appeared to be 18 years of age and over. The researcher used a survey methodology approach for this study. The time frame selected for the data collection was scheduled to be between May 18<sup>th</sup> and May 31<sup>st</sup>. Due to the Chanchu typhoon hit Taiwan from May 16<sup>th</sup> to May 19<sup>th</sup>,

the data collection was postponed and conducted in Lan-Yu between May 22<sup>nd</sup>, 2006 and June 1<sup>st</sup>, 2006.

The researcher distributed surveys by contacting Lan-Yu residents at various data collection sites, such as local restaurants and convenient stores most likely to be used by local residents age 18 and over. For each village, the researcher spent two days at the data collection site to collect the data, except for Imourud and Iratai because these two villages are very close to each other. For these two villages, the researcher spent only one day at the data collection sites. In Yayu, Iratai and Imourud village, the researcher chose two local restaurants and two convenient stores to conduct the survey. In Iraraly and Iranumilk village, the researcher selected three convenient stores due to the fact that there were no local restaurants in the two villages. As for Ivarinu, the researcher could only find two convenient stores to be data used as collection sites. Throughout the data collection time frame, participants were systematically approached by the researcher using the systematic random sampling process (as mentioned previous in the sampling section). As the potential participant entered or walked by the data collection sites, he/she would be asked for their willingness to take about 15 minutes to fill out a survey questionnaire. The researcher introduced herself as a graduate student in Clemson University working for her Masters' thesis and explained the purpose of this study. If the person was willing to participate, he/she was asked to read and sign the Chinese informational letter first (Appendix B). After the researcher confirmed the participant was a resident in Lan-Yu and was 18 years old and up, the participant was given a questionnaire. At the end of the survey, the researcher thanked the respondent, and told the respondents that they were welcome to have a copy of informational letter if they had

any further questions about the survey. Then, the researcher prepared for the next survey questionnaire, and waited for the next potential participants to enter or pass by the study sites. Among six villages, 66% of the responses came from three of the more developed villages, including 33% (n=31) from Yayu village, 24% (n=21) from Imourud village, and 10% (n=9) from Iratai village. Yayu village is the site of Lan-Yu's administrative center, township office, middle school (the only middle school in Lan-Yu), and main bus station.

Using the systematic random sampling procedure, a total of 168 individuals were approached, while 72 of them refused to participate. Finally, 96 individuals agreed to participate; however, among the 96 responded questionnaires, 3 cases were deleted from the data set for missing too many questions. The remaining 93 questionnaires were used for the data analysis. This resulted in an overall response rate for the survey of 55%.

### *Operationalization of Variables and Measurement*

#### *Perceived Social and Cultural Impacts of Tourism Variables*

The participants' perceptions of the social and cultural impacts of tourism, were treated as the dependent variable, as measured by a variety of questions (items 1 to 21) based on a prior scales examining Hawaii residents' opinions of the socio-cultural effects of tourism by Liu and Var (1986). However, for the purpose of this study, an investigation on residents' perceptions of the socio and cultural impacts of tourism in Lan-Yu, modifications were made to the questions. The value of each response was recorded as 1 = strongly disagree to 5 = strongly agree. Example questions are "Meeting tourists from all over the world is definitely a valuable educational experience.", "Tourists have a positive impact on Lan-Yu's cultural identity.", "I think the Tao Spirit in

our island is declining.”, “More of the residents’ taxes should be used to reduce the crime rate rather than promote tourism.”, “I feel that tourists are unaware of our laws and ways of life here in Lan-Yu.” The complete list of items is found in Section one in Appendix C).

#### *Residents’ Attitudes toward Tourism Development Variables*

The participants’ attitudes toward tourism development were measured by a list of questions (items 22 to 42) developed by Teye et al. (2002) in their study examining residents’ attitudes toward tourism development in two Ghanaian towns. Likewise, the questions were slightly modified to fit the focus of this study, and the value of each response was also recorded as 1 = strongly disagree to 5 = strongly agree. Example questions are “I like learning about tourists’ own country and culture.”, “Tourism helps to preserve and improve our culture and traditions.”, “I am against new tourism facilities which will attract more tourists to Lan-Yu.”, “Tourism only benefits a few people in Lan-Yu.”, “Tourists cause my village to be crowded with people.” The complete list of items is found in Section two in Appendix C.

#### *Social Demographics*

The participants’ demographic information was measured by gender (0= “Male” and 1= “Female”), educational level (1= “Elementary School”, 2= “Middle School”, 3= “High School/Vocational School”, 4= “College/Bachelor’s Degree” and 5= “Graduate Degree (Master/Doctorate)”), employment status (1= “Working, 2= “Unemployed” and 3= “Retired”), place of employment (0= “in the tourism industry” and 1= “not in the tourism industry”), household income (1= “Under NT\$10,000”, 2= “NT\$10,001- NT\$20,000”, 3= “NT\$20,001- NT\$30,000”, 4= “NT\$30,001- NT\$40,000”, 5=

“NT\$40,001- NT\$50,000”, 6= “NT\$50,001- NT\$60,000” and 7= “Over NT\$60,001”), marital status (1= “Single/never married”, 2= “Married” and 3= “Divorced/Separated”), age (coded as years old), days of interacting with tourists per week (coded as days), length of residence (coded as years old), and village of residence (1= “Yayu”, 2= “Iraralay”, 3= “Iranumilk”, 4= “Ivarinu”, 5= “Imourud” and 6= “Iratat”).

To test the Hypothesis 1.7 and Hypothesis 1.8, recoding for selected variables (age and length of residence) was needed. Initially, the age variable was created using the participants’ reported age of years old. In order to test Hypothesis 1.7, two groups were developed (0= “Under 40 years old” and 1= “Over 40 years old”). Choosing 40 years as a basis was because Lan-Yu was documented to be officially opened to the public in 1967 by Taiwanese Government (Lan-Yu Island Comprehensive Information Web, 2006). Likewise, the length of residence variable was originally created using the participants’ reported years of living in Lan-Yu. To test Hypothesis 2.8, two groups were developed (0= “Under 20 years” and 1= “Over 20 years”).

#### *Data Analysis*

The data were analyzed using the Statistical Package for the Social Science (SPSS, 1999). Frequencies were run first before each analysis to allow for checking of the data and identifying missing values. To test the proposed hypotheses, this study employed two statistical techniques: factor analysis and multivariate analysis of variance (MANOVA).

#### *Factor Analysis for the Underlying Dimensions of the Perceive Social and Cultural Impacts of Tourism*

Factor analysis was employed to enumerate how survey items were grouped together to structure the perceived social and cultural impacts scale. This statistical

technique was helpful in reducing the number of variables into a smaller subset of new composite factors. A principal factor analysis with varimax rotation was performed for the purpose of identifying the underlying dimensions of residents' perceptions toward social and cultural impacts of tourism (Research Question 1). The cut-off point was .50 to select the factor items in this study because items with factor loadings of  $\pm .50$  or greater are considered very significant (Hair, Anderson, Tatham & Black, 1998). Then, the underlying dimensions were subjected to do reliability tests. After the scale reliability was confirmed, each item of the underlying dimensions and each dimensions were evaluated for mean score and standard deviation for more understanding the underlying dimensions of the perceived social and cultural impacts scale.

*MANOVA for Relationship between/among Socio-demographic Variables and the Underlying Dimensions of the Perceived Social and Cultural Impacts*

After the factor analysis determined the underlying dimensions of perceived social and cultural impacts, Multiple Analysis of Variance (MANOVA) was employed to determine the significance of differences in means across participants' socio-demographic characteristics. MANOVA is a statistical technique to "test the differences in the centroid (vector) of means of the multiple interval dependents, for various categories of the independent(s)." MANOVA compares groups formed by categorical independent variables on group difference in a set of interval dependent variables (PA 765 Quantitative Research in Public Administration (NCSU), 2006). In the MANOVA tests, this study regarded the factors from underlying dimensions of perceived social and cultural impacts as the dependent variables and the socio-demographic variables as the independent variables.



### *Summary*

This chapter discussed the research methods used in this research study. The study site, study population, sampling method were described along with the data collection method. The survey instrument and operationalization of variables were also described and presented in this chapter. The following chapter will present the data analysis and the formal results.

## CHAPTER 4

### RESULTS

#### *Introduction*

This chapter presents the results from the quantitative analysis of data derived from the survey. Two research questions were used to investigate Lan-Yu's residents on their perceptions of social and cultural impacts of tourism. The chapter is divided into three main sections. The first section reports the descriptive statistics of the participants' socio-demographic profile. The second section presents the underlying dimensions of the perceived social and cultural impacts of the Tao living in Lan-Yu. The third section presents the analysis results between socio-demographic variables and the underlying dimensions of the perceived social and cultural impacts of the Tao living on Lan-Yu. The last section reports the descriptive statistics of the participants' attitudes toward tourism development.

#### *Descriptive Statistics*

##### *Description of Participants*

This section describes the participants' social and demographic characteristics (Table 4.1). The participants in this study were 51.6% female and 48.4% male. The majority of the participants (57.0%) had a high school or vocational school degree. In terms of employment status, the majority of participants (66.3%) were working, but 48.4% of them were not working in the tourism industry. About half of the participants (54.9 %) had an estimated monthly income of less than NT\$20,001, which was

approximately US\$600 at the time when data was collected. The mean age of the participants was 37.1 years old; and two-thirds of them were married (65.6%). The average length of residence was 27 years. In terms of days of interacting with tourists per week, the average response was three to four days. Among the participants, 33.3 % lived in Yayu village and 22.6% lived in Imourud village. Table 4.1 shows the remainder of this participants' demographic information as described in this study.

Additionally, about 22.6% who had a high school or vocational school degree lived in Yayu village. 21.7% of participants who were employed lived in Yayu village while 18.2% of participants did not work in the tourism industry also lived in Yayu village. In terms of household income, 11% who had a monthly household income under NT\$10,000 (US\$303) lived in Yayu village, and 7.3 % who had a monthly household income over NT\$50,001 (US\$1515) lived in Imourud village. In terms of marital status, 22.6% who were married lived in Yayu village, and 15.1% lived in Imourud village. Table 4.2 shows the descriptive results of the participants' demographic information by each village

**Table 4.1** Participants' Demographics

Demographic variable	N	Mean	Percentage (%)
<b>Gender (n=93)</b>			
Male	45		48.4
Female	48		51.6
<b>Educational Level (n=93)</b>			
Elementary School	6		6.5
Middle School	19		20.4
High School/Vocational School	53		57.0
College/Bachelor's Degree	13		13.9
Graduate degree (Master/Doctorate)	2		2.2
<b>Employment Status (n=92)</b>			
Working	61		66.3
Unemployed	28		30.4
Retired	3		3.3
<b>Place of Employment (n=66)</b>			
In the tourism industry	21		31.8
Not in the tourism industry	45		68.2
<b>Monthly Household Income (n=82)</b>			
Under NT\$10,000	30		36.6
NT\$10,001- NT\$20,000	15		18.3
NT\$20,001- NT\$30,000	12		14.6
NT\$30,001- NT\$40,000	8		9.8
NT\$40,001- NT\$50,000	7		8.5
Over NT\$50,001	10		12.2
<b>Marital Status (n=93)</b>			
Single/never married	26		27.9
Married	61		65.6
Divorced/Separated	6		6.5
<b>Age (coded as years, n=93)</b>	93	37.1	
<b>Length of Residence (coded as years, n=92)</b>	92	27.0	
<b>Days of Interacting with Tourists (n=91)</b>	91	3.5	

**Table 4.1** Participants' Demographics (Continued)

Demographic variable	N	Mean	Percentage (%)
<b>Village of Residence (n=93)</b>			
Yayu	31		33.3
Iraralay	5		5.4
Iranumilk	14		15.1
Ivarinu	13		13.9
Imourud	21		22.6
Iratai	9		9.7

**Table 4.2** Participants' Demographics by Village

Demographic Variables	Village											
	Yayu		Iraralay		Iranumilk		Ivarinu		Imourud		Iratai	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Gender (n=93)</b>												
Male	14	18.3	2	3.2	7	7.5	7	7.5	7	7.5	4	4.3
Female	17	15.1	3	2.2	7	7.5	6	6.5	14	15.1	5	5.4
<b>Educational Level (n=93)</b>												
Elementary School	3	3.2	1	1.1	1	1.1	1	1.1	0	0	0	0
Middle School	5	5.4	0	0	6	6.5	1	1.1	4	4.3	3	3.2
High School/Vocational School	21	22.6	2	2.2	4	4.3	9	9.7	13	14.0	4	4.3
College/Bachelor's Degree	2	2.2	2	2.2	2	2.2	1	1.1	4	4.3	2	2.2
Graduate degree (Master/Doctorate)	0	0	0	0	1	1.1	1	1.1	0	0	0	0
<b>Employment Status (n=92)</b>												
Working	20	21.7	3	3.3	9	9.8	7	7.6	15	16.3	7	7.6
Unemployed	11	12	2	2.2	5	5.4	4	4.3	4	4.3	2	2.2
Retired	0	0	0	0	0	0	1	1.1	2	2.2	0	0
<b>Place of Employment (n=66)</b>												
In the tourism industry	9	13.6	2	3.0	1	1.5	2	3.0	5	7.6	2	3.0
Not in the tourism industry	12	18.2	1	1.5	10	15.2	7	10.6	10	15.2	5	7.6

**Table 4.2** Participants' Demographics by village (Continued)

Demographic Variables	Village											
	Yayu		Iraralay		Iranumilk		Ivarinu		Imourud		Iratai	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Monthly Household Income (n=82)</b>												
Under NT\$10,000	9	11	2	2.4	4	4.9	8	9.8	5	6.1	2	2.4
NT\$10,001- NT\$20,000	5	6.1	1	1.2	2	2.4	1	1.2	4	4.9	2	2.4
NT\$20,001- NT\$30,000	4	4.9	0	0	2	2.4	1	1.2	4	4.9	1	1.2
NT\$30,001- NT\$40,000	2	2.4	0	0	3	3.7	0	0	1	1.2	2	2.4
NT\$40,001- NT\$50,000	4	4.9	1	1.2	0	0	2	2.4	0	0	0	0
Over NT\$50,001	1	1.2	0	0	2	2.4	0	0	6	7.3	1	1.2
<b>Marital Status (n=93)</b>												
Single/never married	9	9.7	1	1.1	3	3.2	5	5.4	5	5.4	3	3.2
Married	21	22.6	3	3.2	11	11.8	7	7.5	14	15.1	5	5.4
Divorced/Separated	1	1.1	1	1.1	0	0	1	1.1	2	2.2	1	1.1
<b>Age (coded as years, n = 93, Mean = 37.1)</b>	31		5		14		13		21		9	
<b>Length of Residence (coded as years, n = 92, Mean = 27.0)</b>	30		5		14		13		21		9	
<b>Days of Interacting with Tourists (n = 91, Mean = 3.5)</b>	31		5		13		13		20		9	

*The Underlying Dimensions of the Perceived Social and Cultural Impacts of Tourism*

Factor analysis was used for the purpose of identifying the underlying dimensions of residents' perceptions toward social and cultural impacts of tourism. The utilization of the "Principal Component Analysis" with the varimax rotation contained 21 perceived social and cultural impacts of tourism items (the response categories to all items were scored from 1 = strongly disagree to 5 = strongly agree). The Kaiser-Mayer Olkin (KMO) measure of sampling adequacy and the Bartlett's test of Sphericity was employed to test the appropriateness of the factor analysis procedures. The results of KMO and Bartlett's test indicated that the use of the factor analysis was significant (KMO of sampling adequacy = .602, Chi-Square of Bartlett's Test = 531.786, and significant level = .000).

The analysis suggested the presence of three underlying dimensions (explaining a total variance of 40.81%). The three dimensions were considered as the dependent variables in this study, and they were named: positive cultural effects, negative cultural effects and negative social effects. The cut-off point for coefficients was .50 to be selected as a factor item. A total of 11 items were dropped from further analyses because some items were not interpretable for having only two items loaded in one factor. Others were dropped for having low coefficient scores. After the factor analysis, reliability analysis using Cronbach's Alpha ( $\alpha$ ) was conducted to check the internal consistency of the items within each of the three factor structures. The first underlying dimension contained four items with an alpha = .78. The second underlying dimension contained three items with an alpha = .78. The third underlying dimension contained three items with an alpha = .63. The results of the factor analysis and the alpha value for the three underlying dimensions are listed in Table 4.3.



**Table 4.3** Factor Analysis on the Perceived Social and Cultural Impacts of Tourism

Underlying Dimensions and Items	Factors Loading		
<b>Positive Cultural Effects</b>			
Tourists have a positive impact on Lan-Yu's cultural identity	<b>.818</b>		
Tourism encourages a variety of cultural activities by the local population (e.g. crafts, arts, music, dance, etc.)	<b>.795</b>		
Tourism results in more "cultural exchange" between local residents and tourists, which gives us a better understanding about the world	<b>.732</b>		
I think that tourism has caused more need for historical and cultural exhibits to educate the tourists and create a positive feeling about our island	<b>.575</b>		
<b>Negative Cultural Effects</b>			
Tourists are inconsiderate in historical sites		<b>.892</b>	
The local residents are the people who really suffer from living a tourists area		<b>.770</b>	
Native Tao are being exploited by tourism		<b>.677</b>	
<b>Negative Cultural Effects</b>			
Because of tourists the crime rate on the island has increased			<b>.726</b>
The large number of tourists are responsible for the increased use of illegal drugs in Lan-Yu			<b>.713</b>
Tourism has led to more prostitution			<b>.687</b>
<b>Eigenvalue</b>	<b>3.29</b>	<b>3.10</b>	<b>1.95</b>
<b>Percent of Variance Explained</b>	<b>15.41</b>	<b>12.98</b>	<b>12.42</b>
<b>Cumulative Variance Explained</b>	<b>15.41</b>	<b>28.39</b>	<b>40.81</b>
<b>Alpha</b>	<b>.78</b>	<b>.78</b>	<b>.63</b>

The first underlying dimension was named *Positive Cultural Effects* because the items within this factor generally reflected participants' perceptions of positive feelings associated to cultural matters caused by tourism (Tourists have a positive impact on Lan-Yu's cultural identity; Tourism encourages a variety of cultural activities by the local population (e.g. crafts, arts, music, dance, etc.); Tourism results in more "cultural exchange" between local residents and tourists, which gives us a better understanding about the world; and I think that tourism has caused more need for historical and cultural exhibits to educate the tourists and create a positive feeling about our island).

The second underlying dimension was named *Negative Cultural Effects* because the items within this factor reflected participants' perceptions of negative feelings related to cultural impacts accompanied by tourism (Tourists are inconsiderate in historical sites; The local residents are the people who really suffer from living a tourists area; and Native Tao are being exploited by tourism).

The third underlying dimension was named *Negative Social Effects* because the items within this factor generally reflected participants' perceptions of negative feelings related to social problems accompanied by tourism (Because of tourists the crime rate on the island has increased; The large number of tourists are responsible for the increased use of illegal drugs in Lan-Yu; and Tourism has led to more prostitution).

After the scale reliability was confirmed, each item of three underlying dimension and the three underlying dimension (positive cultural effects, negative cultural effects and negative social effects) were evaluated for mean scores and standard deviations. The positive cultural effects variable was created by calculating the average of the responses for the positive cultural effects items. The negative cultural effects

variable was created by calculating the average of the responses for the negative cultural effects items. The negative cultural effects variable was created by calculating the average of the responses for the negative cultural effects items. All the calculations for the mean scores and standard deviations of the three underlying dimensions were taken from the raw data.

Overall, the positive cultural effects as a group had the highest mean scores among the three underlying dimensions while the negative social effects as a group had the lowest mean scores. The overall mean scores indicated that the participants were generally in agreement or strongly agreement with the positive cultural effects and in disagreement or strongly disagreement in negative social effects. The mean scores and standard deviations for the positive cultural effects are listed in Table 4.4. The mean scores and standard deviations for the negative cultural effects are listed in Table 4.5. The mean scores and standard deviations for the positive cultural effects are listed in Table 4.6. The means scores and standard deviations for three underlying dimensions are listed in Table 4.7.

**Table 4.4** Mean Scores and Standard Deviations for Positive Cultural Effects

Positive Cultural Effects	N	Mean	Standard Deviation
Tourists have a positive impact on Lan-Yu's cultural identity	91	3.44	1.08
Tourism encourages a variety of cultural activities by the local population (e.g. crafts, arts, music, dance, etc.)	93	4.08	1.09
Tourism results in more "cultural exchange" between local residents and tourists, which gives us a better understanding about the world	93	3.83	.96
I think that tourism has caused more need for historical and cultural exhibits to educate the tourists and create a positive feeling about our island	93	3.71	1.09

1 = strongly disagree to 5 = strongly agree

**Table 4.5** Mean Scores and Standard Deviations for Negative Cultural Effects

Negative Cultural Effects	N	Mean	Standard Deviation
Tourists are inconsiderate in historical sites	91	3.37	1.31
The local residents are the people who really suffer from living a tourists area	91	2.97	1.19
Native Tao are being exploited by tourism	90	2.87	1.42

1 = strongly disagree to 5 = strongly agree

**Table 4.6** Mean Scores and Standard Deviations for Negative Social Effects

Negative Cultural Effects	N	Mean	Standard Deviation
Because of tourists the crime rate on the island has increased	91	2.35	1.23
The large number of tourists are responsible for the increased use of illegal drugs in Lan-Yu	92	2.03	1.28
Tourism has led to more prostitution	92	1.71	1.10

1 = strongly disagree to 5 = strongly agree

**Table 4.7** Mean Scores and Standard Deviations for Three Underlying Dimensions

Factor Dimensions	N	Mean	Standard Deviation
Positive Cultural Effects	91	3.75	.82
Negative Cultural Effects	89	3.09	1.08
Negative Social Effects	90	2.01	.90

1 = strongly disagree to 5 = strongly agree

*Multivariate Analysis of Variance for the Relationship between Socio-demographic Variables and the Underlying Dimensions of the Perceived Social and Cultural Impacts*

The purpose of this study is to investigate residents' perceived social and cultural impacts of tourism in Lan-Yu. Therefore, the relationship between socio-demographic variables and the underlying dimensions of the perceived social and cultural impacts was examined by using multivariate analysis of variance (MANOVA) with three underlying dimensions of the perceived social and cultural impacts considered as dependent variables while socio-demographic variables considered as independent variables. Table 4.8 summarizes the results of multivariate analysis of variance. As indicated in Table 4.8, five socio-demographic characteristics were significant at .05 level ( $p < .05$ ): educational level, employment status, income level, marital status, and length of residence.

**Table 4.8** The Relationship between Socio-demographic Variables and the Underlying Dimensions of the Perceived Social and Cultural Impacts of Tourism

Variables	Wilk's Lamda	F
Gender	.859	1.58
Educational Level	.404	2.62**
Employment Status	.736	3.47*
Place of Employment	.888	1.22
Income Level	.387	1.83*
Marital Status	.538	3.51**
Age	.887	1.23
Length of Residence	.991	.086
Village of Residence	.329	2.66**

\* $p < .05$ ; \*\* $p < .01$

*Gender and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.1: The underlying dimensions of perceived social and cultural impacts of tourism will differ by gender of the Tao residents**

The results of the multivariate analysis of variance (MANOVA) indicated that there was no significant difference between Lan-Yu residents' gender and the underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .859;  $F = 1.58$ ;  $p = .215$ ). Although there were no significant differences between gender types, both males and females showed the highest mean agreement with the positive cultural effects as compared to agreement with negative cultural effects and negative social effects (Table 4.9).

**Table 4.9** Perceived Social and Cultural Impacts of Tourism by Gender

Underlying Dimensions	Overall Mean	Gender		F-value (df = 1)
		Male	Female	
Positive Cultural Effects	3.75	3.71	3.79	.202
Negative Cultural Effects	3.09	3.24	2.95	2.89
Negative Social Effects	2.01	2.07	1.95	.002

\* $p < .05$ ; \*\* $p < .01$

*Educational Level and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.2: The underlying dimensions of perceived social and cultural impacts of tourism will differ by educational level of the Tao residents**

The results of the multivariate analysis of variance (MANOVA) indicated that there was a significant difference between Lan-Yu residents' educational level and the three underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .404;  $F = 2.62$ ;  $p = .005$ ), see Table 4.8. More specifically, the results of the MANOVA suggested that Lan-Yu residents' educational level was statistically significant in its relation with the perceived negative cultural effects ( $F = 3.27$ ;  $p = .024$ ), see Table 4.10. It was found that Lan-Yu residents who had a college/bachelor's and high school/vocational school degree reported the highest perceived negative cultural effects followed by elementary school and middle school with residents having a graduate degree reported the lowest perceived negative cultural impacts. However, these differences were small and not significant using post hoc Fisher's LSD comparisons.



**Table 4.10** Perceived Social and Cultural Impacts of Tourism by Educational Level

Underlying Dimensions	Overall Mean	Educational Level					F-value (df = 4)
		Elementary School	Middle School	High School/ Vocational School	College/ Bachelor's Degree	Graduate Degree(Master/ Doctorate)	
Positive Cultural Effects	3.75	3.75	4.04	3.73	3.52	3.00	1.85
Negative Cultural Effects	3.09	2.94	2.74	3.19	3.39	2.33	3.27*
Negative Social Effects	2.01	1.83	1.91	2.00	2.26	2.16	1.53

\* $p < .05$ ; \*\* $p < .01$

*Employment Status and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.3: The underlying dimensions of perceived social and cultural impacts of tourism will differ by employment status of the Tao residents**

The results of the multivariate analysis of variance (MANOVA) indicated that there was also a significant difference between Lan-Yu residents' employment status and the three underlying dimensions of the perceived social and cultural impacts (Wilk's  $\Lambda = .736$ ;  $F = 3.47$ ;  $p = .029$ ), see Table 4.8. Take a closer look, the results of the MANOVA suggested that Lan-Yu residents' employment status was significantly related to the perceived negative social effects ( $F = 5.21$ ;  $p = .029$ ), see Table 4.11. It was reported that residents who were unemployed tended to perceive more negative social effects than residents who were employed and retired. But, these individual differences were also not statistically significant in post hoc Fisher's LSD analysis.

**Table 4.11** Perceived Social and Cultural Impacts of Tourism by Employment Status

Underlying Dimensions	Overall Mean	Employment Status			F-value (df = 2)
		Working	Unemployed	Retired	
Positive Cultural Effects	3.75	3.81	3.60	4.08	.943
Negative Cultural Effects	3.09	3.01	3.26	2.89	.204
Negative Social Effects	2.01	2.01	2.05	1.56	5.21*

\* $p < .05$ ; \*\* $p < .01$

*Place of Employment and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.4: The underlying dimensions of perceived social and cultural impacts of tourism will differ by place of employment of the Tao residents**

The results of the multivariate analysis of variance (MANOVA) indicated that there was no significant difference concerning whether Lan-Yu residents were working in the tourism industry and the underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .888;  $F = 1.22$ ;  $p = .320$ ), see Table 4.8. Although there were no significant differences between residents' place of employment and the three underlying dimensions, both residents who were working in the tourism industry and residents who were not working in the tourism industry reported the highest mean agreement with the positive cultural effects as compared to agreement with negative cultural effects and negative social effects (Table, 4.12).

**Table 4.12** Perceived Social and Cultural Impacts of Tourism by Place of Employment

Underlying Dimensions	Overall Mean	Place of Employment		F-value (df = 1)
		In the tourism industry	Not in the tourism industry	
Positive Cultural Effects	3.75	3.83	3.85	.14
Negative Cultural Effects	3.09	3.12	2.96	1.42
Negative Social Effects	2.01	1.92	2.19	.26

\* $p < .05$ ; \*\* $p < .01$

*Income Level and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.5: The underlying dimensions of perceived social and cultural impacts of tourism will differ by income level of the Tao residents**

Although the multivariate F-value suggested there was a significant difference related to Lan-Yu residents' income level and the three underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .387;  $F = 1.83$ ;  $p = .035$ ), see Table 4.8, the individual F-values did not reach any statistical significance (Table 4.13). It was suggested that the underlying dimensions of the perceived social and cultural impacts were not significantly related to Lan-Yu residents' income level; however, the relationship approached significance ( $F = 2.174$ ;  $p = .073$ ) showed that Lan-Yu residents' who had a monthly household income of NT\$20,001 to NT\$30,000 (USD\$600 to USD\$900) and NT\$30,001 to NT\$40,000 (USD\$900 to USD\$1,200) tended to perceive more negative cultural effects than residents' with other income level groups (Table 4.13).

**Table 4.13** Perceived Social and Cultural Impacts of Tourism by Income Level

Underlying Dimensions	Overall Mean	Income Level						F-value (df = 5)
		Under NT \$10,000	NT\$10,001–20,000	NT\$20,001–30,000	NT\$30,001–40,000	NT\$40,001–50,000	Over NT \$50,001	
Positive Cultural Effects	3.75	3.60	3.70	3.83	3.69	3.96	4.13	1.22
Negative Cultural Effects	3.09	3.17	2.62	3.36	3.38	3.17	2.63	2.17
Negative Social Effects	2.01	2.01	2.04	2.30	2.14	1.56	1.87	1.06

\* $p < .05$ ; \*\* $p < .01$

*Marital Status and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.6: The underlying dimensions of perceived social and cultural impacts of tourism will differ by marital status of the Tao residents**

The multivariate F-value suggested there was a significant difference related to Lan-Yu residents' marital status and the three underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .538;  $F = 3.51$ ;  $p = .005$ ), Table 4.8; however, the individual F-values also failed to find any statistical significance (Table 4.14). Even though it was suggested that the underlying dimensions of the perceived social and cultural impacts were not statistically significant related to Lan-Yu residents' marital status, there was a trend showed that single/never married residents seemed to perceive more negative social effects than married residents ( $F = 2.65$ ;  $p = .086$ ), see Table 4.14.

**Table 4.14** Perceived Social and Cultural Impacts of Tourism by Marital Status

Underlying Dimensions	Overall Mean	Marital Status			F-value (df = 2)
		Single/ Never married	Married	Divorced/ Separated	
Positive Cultural Effects	3.75	3.57	3.86	3.31	2.38
Negative Cultural Effects	3.09	3.26	2.99	3.40	1.33
Negative Social Effects	2.01	2.43	1.86	1.89	2.65

\* $p < .05$ ; \*\* $p < .01$

*Age and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.7: The underlying dimensions of perceived social and cultural impacts of tourism will differ by age of the Tao residents**

For testing this hypothesis, the participants of this study were divided into two groups, age under 40 years old and age over 40 years old, for the reason that Lan-Yu was officially open to the public in 1967. The results of the multivariate analysis of variance (MANOVA) indicated that there was no significant difference related Lan-Yu residents' age to the underlying dimensions of the perceived social and cultural impacts (Wilk's  $\Lambda = .887$ ;  $F = 1.23$ ;  $p = .317$ ), see Table 4.8. Likewise, though there were no statistically significant differences in Lan-Yu residents' age, both two age groups reported the highest mean agreement with the positive cultural effects as compared to agreement with negative cultural effects and negative social effects (Table 4.15).

**Table 4.15** Perceived Social and Cultural Impacts of Tourism by Age

Underlying Dimensions	Overall Mean	Age		F-value (df = 1)
		Under 40 years old	Over 40 years old	
Positive Cultural Effects	3.75	3.78	3.71	1.51
Negative Cultural Effects	3.09	3.23	2.89	1.15
Negative Social Effects	2.01	2.21	1.72	.16

\* $p < .05$ ; \*\* $p < .01$

*Length of Residence and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.8: The underlying dimensions of perceived social and cultural impacts of tourism will differ by age of the Tao residents**

For testing this hypothesis, the participants of this study were divided into two groups: residents who had been living in Lan-Yu for less than 20 years and residents who had been living in Lan-Yu for more than 20 years. The results of the multivariate analysis of variance (MANOVA) indicated that there was no significant difference related Lan-Yu residents' length of residence to the underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .991;  $F = .086$ ;  $p = .967$ ), see Table 4.8. Additionally, the results of the individual F-values also failed to find any statistically significant difference between Lan-Yu residents' length of residence and the perceived social and cultural impacts of tourism (Table 4.16).

**Table 4.16** Perceived Social and Cultural Impacts of Tourism by Length of Residence

Underlying Dimensions	Overall Mean	Length of Residence		F-value (df = 1)
		Less than 20 years	More than 20 years	
Positive Cultural Effects	3.75	3.78	3.73	.09
Negative Cultural Effects	3.09	2.96	3.16	.05
Negative Social Effects	2.01	1.94	2.05	.22

\* $p < .05$ ; \*\* $p < .01$



*Village of Residence and Three Underlying Dimensions of the Perceived Social and Cultural Impacts*

**Hypothesis 1.9: The underlying dimensions of perceived social and cultural impacts of tourism will differ by village of residence of the Tao residents**

The results of the multivariate analysis of variance (MANOVA) indicated that there was a significant difference among Lan-Yu residents' village of residence in the three underlying dimensions of the perceived social and cultural impacts (Wilk's Lamda = .329;  $F = 2.66$ ;  $p = .003$ ), see Table 4.8. More specifically, the individual F-values in Table 4.17 suggested that Lan-Yu residents' village of residence was statistically significant in its relation with the perceived negative cultural effects ( $F = 3.56$ ;  $p = .012$ ) and the perceived negative social effects ( $F = 2.63$ ;  $p = .043$ ). The result showed that Lan-Yu residents who lived in Iraralay and Iranumilk village reported the highest perceived negative cultural effects followed by residents living in Iratai and Ivarinu village with residents living in Yayu and Imourud village reporting the lowest. Also, it was suggested that residents Lan-Yu residents who lived in Iranumilk and Iraralay village reported the highest perceived social effects followed by residents living in Iratai and Yayu village with residents living in Imourud and Ivarinu village perceived the least negative social effects. With regard to positive cultural effects, Fisher's LSD test showed that there was a significant difference between Iraralay village and Imourud village, and there was also a significant difference between Iranumilk village and Imourud village. With regard to negative social effects, Fisher's LSD test indicated that there was a significant difference between Iranumilk village and Imourud village.

**Table 4.17** Perceived Social and Cultural Impacts of Tourism by Village of Residence

Underlying Dimensions	Overall Mean	Village of Residence						F-value (df = 5)
		Yayu	Iraralay	Iranumilk	Ivarinu	Imourud	Iratai	
Positive Cultural Effects	3.75	3.59	3.95	4.16	3.60	3.90	3.42	.64
Negative Cultural Effects	3.09	2.97	4.07	3.36	3.28	2.60	3.30	3.56*
Negative Social Effects	2.01	1.97	2.40	2.54	1.59	1.78	2.33	2.63*

\* $p < .05$ ; \*\* $p < .01$

*Tao Residents' Attitudes toward Tourism Development*

The data in Table 4.18 suggest that participants enjoyed interacting with tourists. Second, they viewed their interactions with tourists as positive and useful. Additionally, they indicated that they had developed friendships with tourists. Table 4.18 lists the three items that the participants most agreed with.

The participants also reported that they disagreed with the statements that most people they knew didn't like tourism. Next, they also did not feel that tourists interfered with their enjoyment of Lan-Yu. Finally, they were in felt strongly that recreation areas in Lan-Yu were not overcrowded because of tourism. Table 4.19 lists the three items that the participants most disagreed with.

**Table 4.18** Three Strongest Agreements with Tourism Development

Residents Attitudes toward Tourism Development	N	Mean	Standard Deviation
I enjoy interacting with tourists	92	4.18	.88
My interactions with tourists are positive and useful	92	4.12	.85
Recreation areas in Lan-Yu are overcrowded because of tourism	92	4.07	.96

1 = strongly disagree to 5 = strongly agree

**Table 4.19** Three Strongest Disagreements with Tourism Development

Residents Attitudes toward Tourism Development	N	Mean	Standard Deviation
Most people I know don't like tourism	92	2.64	1.44
Tourists interfere with my enjoyment of Lan-Yu	92	2.61	1.26
I have developed friendships with tourists	91	2.58	1.23

1 = strongly disagree to 5 = strongly agree

### *Summary*

The factor analysis suggested the presence of three underlying dimensions on examining the Tao in Lan-Yu on their perceptions toward social and cultural impacts of tourism, and they were name positive cultural effects, negative cultural effects and negative social effects. Among the three underlying dimensions, the Tao residents perceived the most was positive cultural effects of tourism whereas they perceived negative social effects the least. The further analyses reveal several trends in the relationship between the Tao's socio-demographic characteristic and the three underlying dimensions. Results indicated that the Tao's perceptions toward social and cultural impacts of tourism were different based on their educational level, employment status, income level, marital status, and length of residence.

## CHAPTER 5

### CONCLUSION

#### *Introduction*

The purpose of this chapter is to summarize the findings of this study, discuss these findings, and offer recommendations for future studies. Therefore, this chapter is divided into three sections:

1. Summary of findings
2. Discussion
3. Recommendations for future study

#### *Summary of Findings*

The purpose of this study was to investigate the Tao residents' perceptions of impacts of tourism in Lan-Yu. More specifically, this study examined their perceptions of social and cultural impacts of tourism. After the use of factor analysis on the Tao residents' perceived social and cultural impacts of tourism, three underlying dimensions were identified and named: positive cultural effects, negative cultural effects, and negative social effects. The hypotheses tested the relationship between socio-demographic variables (gender, educational level, employment status, place of employment, income level, marital status, age, length of residence, village of residence) and the three underlying dimensions of the perceived social and cultural impacts on the Tao residents of Lan-Yu. The results of multivariate analysis of variance (MANOVA) indicated that perceptions of social and cultural impacts of tourism by the Tao residents

were not significantly related to their gender, place of employment, age, and length of residence. However, there were significant influences for educational level, employment status, income level, marital status, and village of residence.

To be more specific, the results from the MANOVA suggested that Tao residents' educational level was significantly related to the perceived negative cultural effects. It was found that Tao residents with a college/bachelors' degree perceived the most negative cultural effects when compared with other educational level groups. In terms of employment status, the results suggested that Tao residents' employment status was significantly related to the perceived negative social effects. It was found that Tao residents who were unemployed tended to perceive more negative social effects than residents who were employed or retired. For income level and marital status, the individual F-values failed to find any statistical significance even though it was suggested that these two socio-demographic variables were significantly related to the perceived social and cultural impacts of tourism. However, there was still a trend showing that Tao residents with a monthly household income of NT\$20,001 to NT\$30,000 (USD\$600 to USD\$900) were likely to perceive the most negative cultural effects compared to other income groups, and an analysis showed that single/never married residents were more likely to perceive negative social effects than married residents. Regarding village of residence, the results suggested that Tao residents' village of residence was significantly related to their perceived negative cultural effects and perceived negative social effects from tourism. It was found that Tao residents who lived in Iraralay village perceived the most negative cultural effects from tourism, and Tao residents who lived in Iranumilk village perceived the most negative social effects.

For resident attitudes toward tourism development, three strongest agreements and strongest disagreements of residents' attitude toward tourism development were reported. In terms of three strongest agreements, the participants reported that they enjoyed interacting with tourists. Next, they saw their interactions with tourists as positive and useful. Thirdly, they indicated that they had developed friendships with tourists. In terms of three strongest disagreements, the participants reported that they disagreed that most people they knew didn't like tourism. Then, they also did not feel that tourists interfered with their enjoyment of Lan-Yu. Finally, they strongly felt that recreation areas in Lan-Yu were not overcrowded because of tourism. The results of between-subjects effects for socio-demographic variables and the three underlying dimensions of social and cultural impacts due to tourism are listed in Table 5.1.

**Table 5.1** The Results of Between-subjects Effects for Socio-demographic Variables and Three Underlying Dimensions of Social and Cultural Impacts due to Tourism

Demographic Variables	Underlying Dimensions	df	F-value
Gender	Positive Cultural Effects	1	.202
	Negative Cultural Effects	1	2.89
	Negative Social Effects	1	.002
Educational Level	Positive Cultural Effects	4	1.85
	Negative Cultural Effects	4	3.27*
	Negative Social Effects	4	1.53
Employment Status	Positive Cultural Effects	1	.943
	Negative Cultural Effects	1	.204
	Negative Social Effects	1	5.21*
Place of Employment	Positive Cultural Effects	2	.14
	Negative Cultural Effects	2	1.42
	Negative Social Effects	2	.26
Income Level	Positive Cultural Effects	5	1.22
	Negative Cultural Effects	5	2.17
	Negative Social Effects	5	1.06
Marital Status	Positive Cultural Effects	2	2.38
	Negative Cultural Effects	2	1.33
	Negative Social Effects	2	2.65
Age	Positive Cultural Effects	1	1.51
	Negative Cultural Effects	1	1.15
	Negative Social Effects	1	.16
Length of Residence	Positive Cultural Effects	1	.09
	Negative Cultural Effects	1	.05
	Negative Social Effects	1	.22
Village of Residence	Positive Cultural Effects	5	.64
	Negative Cultural Effects	5	3.56*
	Negative Social Effects	5	2.63*

\* $p < .05$ ; \*\* $p < .01$



### *Discussion*

The literature review revealed a number of studies that examined the relationship between socio-demographic variables and tourism impacts (Pizam, 1978; Belisle & Hoy's, 1980; Haukeland, 1984; Sheldon and Var, 1984; Um and Crompton 1987; Caneday and Zeiger, 1991; Girard & Gartner, 1993; Seid, 1994; McCool & Martin, 1994; Cavus & Tanrisevdi, 2002; Harrill & Potts, 2003).

The study found that five socio-demographic variables (educational level, employment status, income level, marital status, and village of residence) were significantly related to Tao residents' perceptions toward social and cultural impacts of tourism. The study's findings that negative cultural effects were significantly related to residents' educational level was consistent with Caneday and Zeiger's (1991) study. Caneday and Zeiger concluded that number of years of education was directly and significantly related to resident attitudes toward tourism impacts. More specifically, this study found that residents with a college/bachelor's reported the highest perceived negative cultural effects from tourism followed by high school/vocational school, elementary school and middle school with residents having a graduate degree reporting the lowest perceived negative cultural impacts. It was also consistent with Seid's (1994) findings that residents with college education had more negative perceptions of tourism impacts than residents with high school education. These findings, however, contradicted Haralambopoulos and Pizam's (1996) finding that the more educated the residents were, the more positive perceptions and attitudes they had toward tourism. This finding could be influenced by that the number of participants with graduate school degree was small.

With regard to employment status and income, this study found that two socio-demographic variables had a significant effect on residents' perceptions of social and cultural impacts of tourism, and these findings were consistent with Caneday and Zeiger's (1991) results. Though, contradicting Lanford's (1994) finding that employment status was not significantly related to resident attitudes toward tourism, this study found that residents who were unemployed were more likely to perceive more negative social effects than residents who were employed and retired. Although the individual analyses did not reach any statistical significance, there was a tendency in the data showing that income level had an influence on resident perceptions toward tourism. This finding was different from some previous research (Belisle & Hoy, 1980, Liu & Var, 1986; Sheldon & Var, 1984) findings that suggested resident perceptions of tourism impact were not significantly related to income, but this study found the opposite to be true.

With regard to marital status, there was a trend showing that single/never married residents were more likely to perceive more negative social effects from tourism than married residents. This trend was somewhat contradicting to Haralambopoulos and Pizam's (1996) finding that single participants believed tourism had minimum or no influence on the issue of sexual harassment, while married participants had more negative perception of the impact of tourism on this variable.

With regard to village of residence, residents in Iraralay village and Iranumilk village reported more perceived positive cultural effects from tourism when compared to Imourud. An explanation of the difference in perceived positive cultural effects between Iraralay village and Imourud village and Iranumilk village and Imourud village could be attributed to the fact that both Iraralay village and Iranumilk village have smaller number

of tourist contacts when compared to Imourud village due to their geographic locations (both of the villages are located on the east side of Lan-Yu—less-developed side of the island) and having fewer accommodation (hostels).

In terms of negative social effects from tourism, one explanation that residents in Iranumilk village reported more perceived negative social effects than Imourud village could be that Iranumilk village is relatively conservative compared to other villages. Besides, it is widely known that residents in Iranumilk village tend to keep more the most traditional aspects of the Tao culture and have the least support for tourism development.

This study also found that four socio-demographic variables (gender, place of employment, age, and length of residence) were not significantly related to Tao residents' perceptions toward social and cultural impacts of tourism. Regarding gender, in contradiction to the previous studies (Milman and Pizam, 1988; Mason & Cheyne, 2000; Harrill & Potts, 2003), this study did not find that gender had an influence on residents' perceptions toward social and cultural impacts. Regarding place of employment, unlike Milman and Pizam's (1988) finding that residents employed in the tourism industry tended to have a higher level of support for the industry than residents who were not employed in the tourism industry, this study did not find whether Tao residents who worked in the tourism industry would have any influence on their perceptions. In terms of age, this study finding was consistent with the finding by Tomljenovic and Faulkner (1999) but different from previous studies (Brougham & Butler, 1981; Cavus & Tanrisevdi, 2002; Harrill, 2004) which concluded that resident attitudes toward tourism impacts differed based on age. Finally, regarding to length of residence, this study's finding was consistent with previous research (Liu & Var, 1986; Allen et al., 1993)

concluded that resident attitudes toward tourism impacts did not differ based on their length of residence but inconsistent with several previous research (Brougham & Butler, 1981; Um & Crompton, 1987; McCool & Martin, 19991; Snaith & Haley, 1999; Cavus & Tanrisevdi, 2002).

Since Lan-Yu was opened to the public for tourism, both benefits and costs have been recognized. Tao residents have viewed having improved infrastructure in Lan-Yu, increased residents' income, encourage arts and crafts, and increased cultural exchange as benefits. But they also regarded having increased contagious diseases, increased traffic noise, and increased litter, being treated disrespectfully as costs accompany tourism development (Chou, 1989). Therefore, according to social exchange theory, the outcome of this study is consistent and an appropriate framework for investigating the residents' perceptions of the social and cultural impacts of tourism in Lan-Yu. This can be said as because as the results indicate Tao residents perceive tourism as a positive for their community not a negative influence.

#### *Recommendations for Future Study*

Upon completing this study, several suggestions are recommended to be considered in future study.

1. Due to the literacy rate which was lower than reported and expected, it is recommended that survey questionnaire to be designed in a simpler and more understandable way for residents.
2. In general, this study found that residents had an overall positive perception toward social and cultural impacts of tourism. This finding maybe due to having relatively low number of elder participants (55 years old and over). Since the

elder residents have experienced the difference before/after Lan-Yu was open to the public, they might have different perceptions and attitudes toward tourism.

However, because elder residents tend to have a generally low literacy rate; it is not easy to get them into the study using a survey methodology. In addition, future research study could try to conduct a larger sample size to get a better understanding for Tao residents' attitudes toward tourism impacts.

3. For the consideration that Lan-Yu residents' household incomes were lower than anticipated, future research is needed to divide income level into different categories more relevant to this population.
4. Due to the tourists visit duration on average of only two days, the impacts accompanying with tourism and the interaction with tourists were limited. Future research is needed to put the two factors into consideration when designing the survey instrument.
5. Although it is reported that prostitution and illegal drug use have increased because of tourism, future research should be more cautious when putting these two items in the survey questionnaire. Some residents were strongly against these two survey items for the reason that the Tao has a conservative culture.
6. While collecting data for this study, several written and verbal comments were submitted by participants. Some suggested that the survey questionnaire could be designed with open-ended questions for capturing perceptions not covered in the survey instrument. Others suggested that a six or seven item rating scale would be more appropriate.

## Appendices

Appendix A

English Informational Letter

Clemson University  
Department of Park, Recreation, and Tourism Management  
The Perceived Social and Cultural Impacts of Tourism by Residents:  
A Case Study in Lan-Yu, Taiwan

Informational Letter

Investigator: Cheng-Hsuan Hsu (0922)202-402  
Email: [chsu@clermson.edu](mailto:chsu@clermson.edu)

The purpose of this research is to examine Lan-Yu residents' perceptions of social and cultural impacts of tourism. Your participation in this survey allows you to voice your opinion to help improve the quality of life in your community. I hope you will be willing to participate. You must be 18 years of age or older to participate. Your help will be greatly appreciated.

It will take approximately 15 minutes of your time to complete this survey. Your participation in this survey is completely voluntary. You may skip any question you do not want to answer or stop answering questions at any time. All your answers will be kept confidential, and we will not record anything about your identity.

Cheng-Hsuan Hsu will answer any questions you have about this study. You can also contact Dr. Ken Backman at Clemson University by telephone (864)656-2204 or by email at [frank@clermson.edu](mailto:frank@clermson.edu). If you have any further questions, please contact Office of Research Compliance at [dharri2@clermson.edu](mailto:dharri2@clermson.edu) or mail to 223 Brackett Hall Clemson University, Clemson, SC 29634-5704 or go to the website : [www.clemson.edu/research/orcSite/indexComply.htm](http://www.clemson.edu/research/orcSite/indexComply.htm)

**I have read this consent form and have been given the opportunity to ask questions.  
I give my consent to participate in this study.**

\_\_\_\_\_  
Participant signature

\_\_\_\_\_  
Date



Appendix B

Chinese Informational Letter

克萊蒙森大學(Clemson University)  
公園, 遊憩及觀光管理研究所

通知表

親愛的居民 您好！

首先感謝您撥冗填寫這一份問卷。這是一份學術性的問卷，此問卷的目的是在探討「蘭嶼居民對其觀光發展所造成之社會文化衝擊認知的研究」。為了確實了解觀光業對蘭嶼當地居民所造成的影響，即需您寶貴的意見。參與這份問卷並不會對您造成任何的風險，並且您的參與將有助提升您所居住的社區及蘭嶼當地的生活品質，您必須是18歲以上才能回答問卷。我感謝您的參與。

完成這份問卷約需15分鐘，您的參與完全是出於自願的，您可以跳過任何您不想回答的問題或隨時停止回答問題。選擇不參與或中止參與此問卷的填寫並不會對您造成任何的不利。我們能確保所有您的回答將完全保密，並且不會紀錄您任何特徵。

如果您對參加本項研究有任何評論意見或關心的問題，您可首先向研究調查員許承萱 (電話號碼(台灣): 0922-202-402，電子郵件: [chs@clmson.edu](mailto:chs@clmson.edu) 或 Ken Backman 博士 (電話號碼: 864-656-2204，電子郵件: [frank@clmson.edu](mailto:frank@clmson.edu)) 洽詢。如果您有更進一步的問題，您還可聯絡 Office of Research Compliance (電子郵件: [dhari2@clmson.edu](mailto:dhari2@clmson.edu)，通訊地址: 223 Brackett Hall Clemson University, Clemson, SC 29634-5704，網頁: [www.clemson.edu/research/orcSite/indexComply.htm](http://www.clemson.edu/research/orcSite/indexComply.htm))

本人已閱讀且同意本表中的資訊，並且擁有發問的機會。我願意參與這項研究。

---

參與者簽名

---

日期

## Appendix C

### English Version Questionnaire

SURVEY OF RESIDENTS PRECEPTIONS OF THE SOCIO-CULUTRL  
IMPACT OF TOURISM IN LAN-YU, TAIWAN

Part I: SOCIO-CULTURAL INFORMATION

Please read the following statements regarding socio-cultural impacts from tourism. Then rate how much you agree or disagree with each statement by circling one number for each statement that best reflects how you feel. The following indicates what each number means:

- 1= Strongly Disagree
- 2= Disagree
- 3= Neutral
- 4= Agree
- 5= Strongly Agree

- |   |                   |
|---|-------------------|
| 1. Tourism is the major reason for the great variety of entertainment in Lan-Yu.  | 1   2   3   4   5 |
| 2. Meeting tourists from all over the world is definitely a valuable educational experience.  | 1   2   3   4   5 |
| 3. I think that tourism has caused more need for historical and cultural exhibits to educate the tourists and create a positive feeling about our island. | 1   2   3   4   5 |
| 4. I would like to meet tourists from as many countries as possible in order to learn about their culture.  | 1   2   3   4   5 |
| 5. Tourism encourages a variety of cultural activities by the local population (e.g. crafts, arts, music, dance, etc.).                                   | 1   2   3   4   5 |
| 6. Tourism results in more “cultural exchange” between local residents and tourists, which gives us a better understanding about the world.               | 1   2   3   4   5 |
| 7. Tourists have a positive impact on Lan-Yu’s cultural identity.   | 1   2   3   4   5 |
| 8. I think the Tao Spirit in our island is declining.   | 1   2   3   4   5 |
| 9. More of the residents’ taxes should be used to reduce the crime rate rather than promote tourism.  | 1   2   3   4   5 |

Continue on the next page

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 10. The Lan-Yu's residents are courteous and friendly to tourists.  | 1 | 2 | 3 | 4 | 5 |
| 11. I feel that tourists are unaware of our laws and ways of life here in Lan-Yu.   | 1 | 2 | 3 | 4 | 5 |
| 12. Tourism has led to more prostitution.   | 1 | 2 | 3 | 4 | 5 |
| 13. The local residents are the people who really suffer from living in a tourist area.   | 1 | 2 | 3 | 4 | 5 |
| 14. The different types of culture (e.g. art, literature) that tourists bring to Lan-Yu are more important than the social costs created by tourism.  | 1 | 2 | 3 | 4 | 5 |
| 15. Taiwanese tourists in particular have an impact on our social and cultural customs because their social and cultural traditions are so different. | 1 | 2 | 3 | 4 | 5 |
| 16. Because of tourists the crime rate on the island has increased.   | 1 | 2 | 3 | 4 | 5 |
| 17. Native Tao are being exploited by tourism.  | 1 | 2 | 3 | 4 | 5 |
| 18. Tourists are inconsiderate in historical sites.   | 1 | 2 | 3 | 4 | 5 |
| 19. The large number of tourists are responsible for the increased use of illegal drugs in Lan-Yu.  | 1 | 2 | 3 | 4 | 5 |
| 20. I feel that tourists are aware of our political ideas and religious activities here in Lan-Yu.  | 1 | 2 | 3 | 4 | 5 |
| 21. The economic gains from tourism are detrimental to our cultural identity here in Lan-Yu.  | 1 | 2 | 3 | 4 | 5 |

Continue on the next page

## Part II: RESIDENTS' ATTITUDES TOWARD TOURISM DEVELOPMENT

Please read the following statements regarding residents' attitudes toward tourism development. Then rate how much you agree or disagree with each statement by circling one number for each statement that best reflects how you feel. The following indicates what each number means:

1= Strongly Disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly Agree

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 22. I have developed friendships with tourists.                                       | 1 | 2 | 3 | 4 | 5 |
| 23. My interactions with tourists are positive and useful.                            | 1 | 2 | 3 | 4 | 5 |
| 24. I enjoy interacting with tourists.  | 1 | 2 | 3 | 4 | 5 |
| 25. I now enjoy visiting tourist areas.   | 1 | 2 | 3 | 4 | 5 |
| 26. I like learning about tourists' own country and culture.                          | 1 | 2 | 3 | 4 | 5 |
| 27. Tourism promotes cultural exchange.   | 1 | 2 | 3 | 4 | 5 |
| 28. The jobs tourism provides are highly desirable.                                   | 1 | 2 | 3 | 4 | 5 |
| 29. Tourism promotes better understanding between people.                             | 1 | 2 | 3 | 4 | 5 |
| 30. Tourism helps to increase local awareness and appreciation of the environment.    | 1 | 2 | 3 | 4 | 5 |
| 31. Tourism helps to preserve and improve our culture and traditions.                 | 1 | 2 | 3 | 4 | 5 |
| 32. Because of tourism development, I have a better appreciation of my culture.       | 1 | 2 | 3 | 4 | 5 |
| 33. Tourism development in Lan-Yu has caused me to regret living here.                | 1 | 2 | 3 | 4 | 5 |
| 34. Because of tourism, I have more difficulty participating in entertainment events. | 1 | 2 | 3 | 4 | 5 |
| 35. Tourists interfere with my enjoyment of Lan-Yu.                                   | 1 | 2 | 3 | 4 | 5 |

Continue on the next page

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 36. Most people I know don't like tourism.  | 1 | 2 | 3 | 4 | 5 |
| 37. I am against new tourism facilities which will attract more tourists to Lan-Yu. | 1 | 2 | 3 | 4 | 5 |
| 38. Tourism only benefits a few people in Lan-Yu.                                   | 1 | 2 | 3 | 4 | 5 |
| 39. Tourism increases the cost of living.   | 1 | 2 | 3 | 4 | 5 |
| 40. Tourists should pay more than local residents to visit tourist attractions.     | 1 | 2 | 3 | 4 | 5 |
| 41. Tourists cause my village to be crowded with people.                            | 1 | 2 | 3 | 4 | 5 |
| 42. Recreation areas in Lan-Yu are overcrowded because of tourism.                  | 1 | 2 | 3 | 4 | 5 |

### Part III: DEMOGRAPHIC INFORMATION

Please tell us a few things about your background by checking one of the provided options that matches the answer you are most in favor of, or by providing the information requested. *Please keep in mind all the information will remain confidential.*

43. Are you :

Male

Female

44. What is the highest level of education you have completed?

Elementary School

Middle School

High School/Vocational School

College /Bachelor's Degree

Graduate degree (Master/Doctorate)

45. Are you currently:

Working

Unemployed

Retired

Continue on the next page

46. If you answer “working” to previous question, do you work:  
in the tourism industry  
not in the tourism industry
47. What was your household income (per month)?  
Under NT\$10,000  
NT\$10,001- NT\$20,000  
NT\$20,001- NT\$30,000  
NT\$30,001- NT\$40,000  
NT\$40,001- NT\$50,000  
Over NT\$50,001
48. Are you:  
Single/never married  
Married  
Divorced/Separated  
Widowed
49. How old were you on May 1<sup>st</sup> 2006? \_\_\_\_\_ Years
50. How long have you lived on Lan-yu? \_\_\_\_\_ Years
51. How many days do you interact with tourists per week? \_\_\_\_\_ days
52. Which village do you currently live in? \_\_\_\_\_ village



## Appendix D

## Chinese Version Questionnaire

## 蘭嶼居民對其觀光發展衝擊認知與態度之研究

親愛的居民 您好！

首先感謝您撥冗填寫這一份問卷。這是一份學術性的問卷，目的是在探討「蘭嶼居民對其觀光發展衝擊認知與態度之研究」。採不具名方式填寫，且所有問卷內容皆僅供學術研究分析使用，我們將嚴格遵守學術道德，因此請安心填寫。各題的答案並沒有所謂對與錯之分，請直接依照您個人之體驗與意見填答即可。在此由衷感謝您的幫忙與支持！

敬祝 身體健康

### 第一部分:社會文化方面

請仔細閱讀以下有關觀光所帶來之社會文化衝擊的敘述。請由下列五個選項中圈選一個適當的數字。

- 1 = 非常不同意
- 2 = 不同意
- 3 = 無意見
- 4 = 同意
- 5 = 非常同意

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. 在蘭嶼，不同型態的娛樂活動皆以觀光為主                    | 1 | 2 | 3 | 4 | 5 |
| 2. 接觸來自世界各國的觀光客是一個相當具有教育意義的經驗             | 1 | 2 | 3 | 4 | 5 |
| 3. 我認為觀光提升了本地歷史與文化呈現的需求，其使得遊客產生了對本島正面的印象  | 1 | 2 | 3 | 4 | 5 |
| 4. 我想要多接觸來自世界各國的遊客去進而認識他們的文化              | 1 | 2 | 3 | 4 | 5 |
| 5. 觀光業帶動了本島居民的各式文化活動（例如：手工藝品，藝術，音樂，舞蹈等）   | 1 | 2 | 3 | 4 | 5 |
| 6. 因為觀光業促進了當地居民與遊客之間的文化交流，使我對這個世界有更深一層的了解 | 1 | 2 | 3 | 4 | 5 |
| 7. 觀光業對蘭嶼居民的文化認同有著正面的影響                   | 1 | 2 | 3 | 4 | 5 |
| 8. 我認為達悟精神正逐漸消失                           | 1 | 2 | 3 | 4 | 5 |
| 9. 當地的稅收應該多運用在降低犯罪率而不是推廣觀光業               | 1 | 2 | 3 | 4 | 5 |
| 10. 蘭嶼居民對遊客是友善且有禮貌的                       | 1 | 2 | 3 | 4 | 5 |
| 11. 我覺得遊客對蘭嶼居民的生活方式與習性是不夠了解的              | 1 | 2 | 3 | 4 | 5 |
| 12. 觀光業導致了更多的娼妓問題                         | 1 | 2 | 3 | 4 | 5 |

請接下一頁

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1 3 . 生活在觀光區內的居民深受觀光業所帶來的不便                    | 1 | 2 | 3 | 4 | 5 |
| 1 4 . 遊客們所帶來之文化的多樣性(例如:藝術, 文學)勝過於觀光業所造成的社會成本   | 1 | 2 | 3 | 4 | 5 |
| 1 5 . 因為社會與文化傳統的差異, 來自台灣的遊客們對我們的社會與文化習俗有著深遠的影響 | 1 | 2 | 3 | 4 | 5 |
| 1 6 . 遊客帶來了犯罪率的增加                              | 1 | 2 | 3 | 4 | 5 |
| 1 7 . 觀光業剝削了當地的原住民                             | 1 | 2 | 3 | 4 | 5 |
| 1 8 . 遊客們並不尊重當地的歷史景點                           | 1 | 2 | 3 | 4 | 5 |
| 1 9 . 大量遊客的湧入造成了蘭嶼當地非法藥品(例如: 毒品)使用的增加          | 1 | 2 | 3 | 4 | 5 |
| 2 0 . 我覺得遊客們對我們的政治立場與宗教活動是相當了解的                | 1 | 2 | 3 | 4 | 5 |
| 2 1 . 儘管觀光業帶來了經濟上的收益, 但對我們的文化認同卻是有害的           | 1 | 2 | 3 | 4 | 5 |

#### 第二部分：當地居民對觀光發展之態度

請仔細閱讀以下有關當地居民對觀光發展的態度之敘述。請由下列五個選項中圈選一個適當的數字。

- 1 = 非常不同意  
 2 = 不同意  
 3 = 無意見  
 4 = 同意  
 5 = 非常同意

- |                             |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|
| 2 2 . 我和遊客建立了友誼             | 1 | 2 | 3 | 4 | 5 |
| 2 3 . 我與遊客之間的互動是正面且有益的      | 1 | 2 | 3 | 4 | 5 |
| 2 4 . 我喜歡和遊客有所互動            | 1 | 2 | 3 | 4 | 5 |
| 2 5 . 我喜歡參觀我們當地的遊客觀光區       | 1 | 2 | 3 | 4 | 5 |
| 2 6 . 我喜歡學習且了解遊客們所來自的國家及其文化 | 1 | 2 | 3 | 4 | 5 |
| 2 7 . 觀光業促進了文化的交流           | 1 | 2 | 3 | 4 | 5 |
| 2 8 . 觀光業所帶來的工作機會是令人嚮往的     | 1 | 2 | 3 | 4 | 5 |

請接下一頁

29. 觀光業促進了人與人之間的認識與了解 1 2 3 4 5
30. 觀光業有助於當地居民對環境的認知與保育 1 2 3 4 5
31. 觀光業當地文化與傳統的保存是有幫助的 1 2 3 4 5
32. 由於觀光業的發展，使我對我們的文化有了更深一層的認識 1 2 3 4 5
33. 觀光業的發展影響了我居住在蘭嶼的意願 1 2 3 4 5
34. 觀光業的發展影響了我參與我們當地的娛樂活動 1 2 3 4 5
35. 遊客的湧入妨礙了我居住在蘭嶼的興致 1 2 3 4 5
36. 我認識的人大多不喜歡本島的觀光業 1 2 3 4 5
37. 我反對建立新的遊樂設施來吸引更多的觀光客 1 2 3 4 5
38. 觀光業的發展只嘉惠了島上的一小部分的人 1 2 3 4 5
39. 觀光業的發展造成了島上生活費用的增加 1 2 3 4 5
40. 相較於當地居民，遊客們參觀觀光景點時，應該支付較高的費用(例如:門票) 1 2 3 4 5
41. 遊客們的湧入讓我所居住村莊的變的擁擠 1 2 3 4 5
42. 由於觀光業的發展，造成了蘭嶼當地遊樂地區的過度擁擠 1 2 3 4 5

### 第三部份：基本資料

請依據您的狀況，勾選一個最適當的選項。

43. 性別:      男              女
44. 教育程度:      國小      國中      高中高職      專科大學      研究所以上
45. 職業:      就業中      待業中(含失業)      退休
46. 如果您上一題的答案是“就業中”，您目前從事的職業為:  
                 觀光業      非觀光業
47. 家庭平均月收入:      10,000元以下      10,001~20,000元      20,001~30,000元  
                                 30,001~40,000元      40,001~50,000元      50,001元以上
48. 婚姻狀況:      未婚      已婚      離婚或分居      喪偶

請接下一頁

- 4 9 . 您目前的年齡為 \_\_\_\_\_ 歲
- 5 0 . 請問您居住在蘭嶼有多久 \_\_\_\_\_ 年
- 5 1 . 請問你“一星期”平均與遊客接觸有 \_\_\_\_\_ 天
- 5 2 . 請問您目前居住再哪一個村莊 \_\_\_\_\_ 村

**一切順心 萬事如意**

## REFRENECES

- Academia Sinica. (1998). *The Yami on Botel Tabago*. Retrieved April 5, 2006, from [http://www.sinica.edu.tw/~dlproj/eversion/yamei\\_e.html](http://www.sinica.edu.tw/~dlproj/eversion/yamei_e.html)
- Allen, L. R, Hafer, H. R, Long P. T., & Perdue, R. R (1993). Rural resident' attitudes toward recreation and tourism development. *Journal of Travel Research*, 31, 27-33.
- Ap, J. (1992). Residents' perceptions on tourism impacts. *Annals of Tourism Research*, 19, 665-590.
- Babbie, E. (2004). *The practice of social research* (10<sup>th</sup> ed.) Belmont, CA: Wadsworth.
- Belisle, F., & Hoy, D. (1980). The perceived impact of tourism by residents: A case study in Santa Marta, Columbia. *Annals of Tourism Research*, 7, 83-101.
- Briedenhann, J., & Wickens, E. (2004). Tourism routes as a tool for the economic development of rural areas - vibrant hope or impossible dream. *Tourism Management*, 25, 71-79.
- Brougham, J., & Butler, R. (1981). A segmentation analysis of resident attitudes to the social impact of tourism. *Annals of Tourism Research*, 8, 569-590.
- Browne, R. B. (1993). A lions share of tourism in the 21<sup>st</sup> century. *Visions in Leisure and Business*, 12, 4-11.
- Brunt P., & Courtney P. (1999). Host perceptions of sociocultural impacts. *Annals of Tourism*, 26, 493-515.
- Burns, P., & Holden, A. (1995). *Tourism: A new perspective*. London: Prentice-Hall.
- Canan, P., & Hennessy, M. (1989). The growth machine, tourism, and the selling of culture. *Sociological Perspectives*, 32, 227-243.
- Caneday, L., & Zeiger, J. (1991). The social, economic, and environmental costs of tourism to a gambling community as perceived by its residents. *Journal of Travel Research*, 30, 45-49.
- Cavus, S., & Tanrisevdi, A. (2002). Residents attitudes toward tourism: A case study of Kusadasi, Turkey. *Tourism Analysis*, 7, 259-268.

- CCA Taiwan's Potential World Heritage Website (2003). *Orchid island the Tao*. Retrieved October 19, 2006, from [http://wh.cca.gov.tw/en/tw/tw\\_info.asp?twwh\\_id=11&twwh\\_info\\_id=62](http://wh.cca.gov.tw/en/tw/tw_info.asp?twwh_id=11&twwh_info_id=62)
- Chang, R. G. (1999). 蘭嶼的觀光與農業 [Tourism and agriculture in Orchid Island].
- Cheng, Y. C. (1994). *The struggle for renaissance: Taiwan's indigenous culture*. Taipei: Sinorama Publishers.
- Chou, T. H. (1989). 原住民族如何從觀光獲益. Retrieved November 10, 2006, from [http://aipp.womenweb.org.tw/Meeting\\_Show.asp?Meeting\\_ID=72](http://aipp.womenweb.org.tw/Meeting_Show.asp?Meeting_ID=72)
- Cohen, E. (1988). Authenticity and commoditisation. *Annals of Tourism Research*, 15, 311-386.
- Collins, L. R. (1978). Review of hosts and guests: An Anthropology of tourism. *Annals of Tourism Research*, 5, 278-280.
- Council of Indigenous Peoples, Executive Yuan (2005). *Yami*. Retrieved June 4, 2006, from <http://www.apc.gov.tw/en/tribes/indi/yame.aspx>
- Crompton, R., & Sanderson, K. (1990). *Gendered jobs and social change*. London: Unwin Hyman.
- Dogan, H. Z. (1989). Forms of adjustment: Sociocultural impacts of tourism. *Annals of Tourism Research*, 16, 216-236.
- Ericsson, N. S. (2004). Creating "Indian country" in Taiwan? *Harvard Asia Quarterly*, 8.
- Frankfort-Nachmias, C., & Nachmias, D. (1996). *Research methods in the social sciences* (5<sup>th</sup> ed.). New York: St. Martin's Press.
- Gartner, W. (1996). *Tourism development: Principles, processes, and policies*. New York, NY: Van Nostrand Reinhold.
- Girard, T., & Gartner, W. (1993). Second home second view: Host community perceptions. *Annals of Tourism Research*, 20, 685-700.
- Greenwood, D. J. (1989). Culture by the pond: An anthropological perspective on tourism as cultural commoditization. In V. L. Smith (Ed.), *Hosts and guests: The anthropology of tourism* (pp. 171-185). Philadelphia: University of Pennsylvania Press.
- Hair, J., Tatham, R., Anderson, R., & Black, W. (1998). *Multivariate data analysis* (5<sup>th</sup> ed.). Prentice Hall.

- Haley, A., Snaith, T., & Miller, G. (2005). The social impacts of tourism: A case study of Bath, UK. *Annals of Tourism Research*, 32, 647-668.
- Haralambopoulos, N., & Pizam, A. (1996). Perceived impacts of tourism: The case of Samos. *Annals of Tourism Research*, 23, 503-526.
- Harrill, R., & Potts, T. (2003). Tourism planning in historic districts: Attitudes toward tourism development in Charleston. *Journal of the American Planning Association*, 69, 233-244.
- Harrill, R. (2004). Residents' attitudes toward tourism development: A literature review with implications for tourism planning, *Journal of Planning Literature*, 18, 251-266.
- Harrison, D. (1992). *Tourism to less developed countries: The social consequences in tourism and the less developed countries*. London: Bellhaven.
- Haukeland, J. (1984). Sociocultural impacts of tourism in Scandinavia: Studies of three host communities. *Tourism Management*, 5, 207-213.
- Hernandez, S., Cohen, J., Garcia, H. (1996). Residents' attitudes towards an instant resort enclave. *Annals of Tourism Research*, 23, 755-779
- Huang, G. (2003). Tribal tourism and community autonomy: A study of developing ecotourism at Cinsibu Atayal tribe. *Aboriginal Education Quarterly*, 31, 27-44.
- Husbands, W. (1989). Social status and perception of tourism in Zambia. *Annals of Tourism Research*, 16, 237-253.
- Jordan, J. (1980). The summer people and the natives: Some effects of tourism in a Vermont vacation village. *Annals of Tourism Research*, 7, 34-55.
- Jurowski, C., Uysal, M., & Williams, D. (1997). A theoretical analysis of host community resident reactions to tourism. *Journal of Travel Research*, 36, 3-11.
- Kachigan, S. K. (1986). *Statistical analysis: An interdisciplinary introduction to univariate & multivariate methods*. New York: Reditus Press.
- King, B., Pizam, A., & Milman, A. (1993). Social impacts of tourism: Host perceptions. *Annals of Tourism Research*, 20, 650-665.
- Krippendorf, J. (1987). *The Holiday Makers. Understanding the impact of Leisure and Travel*. Oxford: Butterworth Heinemann.
- Lanford, S. (1994). Attitudes and perceptions toward tourism and rural regional development. *Journal of Travel Research*, 32, 35-43.



- Lan-Yu Island Comprehensive Information Web. (2002). *History of Lan-Yu*. Retrieved April 5, 2006, from [http://lanyu.taitung.gov.tw/know/know\\_a2.htm](http://lanyu.taitung.gov.tw/know/know_a2.htm)
- Lan-Yu Island Comprehensive Information Web. (2002). *Legends of villages*. Retrieved April 5, 2006, from [http://lanyu.taitung.gov.tw/e\\_travel/e\\_travel-e1.htm](http://lanyu.taitung.gov.tw/e_travel/e_travel-e1.htm)
- Liu, J., Sheldon, P., & Var, T. (1987). A cross-national approach to determining resident perceptions of the impact of tourism on the environment. *Annals of Tourism Research, 14*, 17-37.
- Liu, J., & Var, T. (1986). Resident attitudes toward tourism impacts in Hawaii. *Annals of Tourism Research, 13*, 193-214.
- Mathieson, A., & Wall, G. (1982). *Tourism: Economic, physical and social impacts*. London: Longman.
- Mason, P. & Cheyne, J. (2000). Residents' attitudes to proposed tourism development. *Annals of Tourism research, 27*, 391-411.
- McCool, S., & Martin, S. (1994). Community attachment and attitudes toward tourism development. *Journal of Travel Research, 32*, 29-34.
- McKean, P. F. (1989). Towards a theoretical analysis of tourism: Economic dualism and cultural involution in Bali. In V. L. Smith (Ed.), *Hosts and guests: The anthropology of tourism* (pp. 119-138). Philadelphia: University of Pennsylvania Press.
- McIntosh, R. Goeldner, C., & Ritchie, J. (1995). *Tourism: Principles, practices, philosophies* (7<sup>th</sup> ed.). New York: Wiley.
- Michener, A., & DeLamater, J. (1998). *Social psychology* (4<sup>th</sup> ed.). Harcourt Brace College Publishers.
- Milman, A., & Pizam, A. (1988). Social impacts of tourism on central Florida. *Annals of Tourism Research, 15*, 191-204.
- Munro, B. H. (2001). *Statistical methods for health care research* (4<sup>th</sup> ed.). Philadelphia: Lippincott.
- Munsterhjelm, M. (2001, May 31). *The first nations of Taiwan: A special report on Taiwan's indigenous peoples*. Retrieved November 1, 2004, from [http://www.culturalsurvival.org/publications/csq/csq\\_article.cfm?id=9CE18D70-E58B-4BC3-B76F-EA71BFA1B63C&region\\_id=2&subregion\\_id=6&issue\\_id=7](http://www.culturalsurvival.org/publications/csq/csq_article.cfm?id=9CE18D70-E58B-4BC3-B76F-EA71BFA1B63C&region_id=2&subregion_id=6&issue_id=7)
- Murphy, P. E. (1985). *Tourism: A community approach*. London: Routledge.

- Nunez, T. (1989). Touristic studies in Anthropological perspective. In V. L. Smith (2<sup>nd</sup> ed.), *Hosts and guests: The anthropology of tourism*. Philadelphia: University of Pennsylvania Press.
- Perdue, R., Long, P., & Allen, L. (1990). Resident support for tourism development. *Annals of Tourism Research, 17*, 586-599.
- Picard, M. (1997). Cultural tourism, nation-building, and regional culture: The making of a Balinese identity. In M. Picard & R. E. Wood (Eds.), *Tourism, ethnicity, and the state in Asian and pacific societies* (pp. 181-214). Honolulu: University of Hawaii Press.
- Pizam, A. (1978). Tourism impacts: The social costs to the destination community as perceived by its residents. *Journal of Travel Research, 16*, 8-12.
- Pizam, A., & Milman, A. (1984). The social impacts of tourism. *UNEP Industry and Environment, 7*, 11-14.
- Pizam, A., Reichel, A., & Stein, C. (1982). Tourism and Crime: Is there a relationship? *Journal of Travel Research, 20*, 7-10.
- Ryan, C. (1991). *Recreational tourism: A social science perspective*. London: Routledge.
- Seid, B. S. (1994). Resident perceptions of tourism in Monroe County, PA. *Visions in Leisure and Business, 13*, 25-36.
- Sharpley, R. (1994). *Tourism, tourists and society*. Huntingdon: ELM.
- Sharpley, R. (2002). *Tourism and Development: Concepts and Issues*. Multilingual Matters Limited.
- Sheldon, P., & Var, T. (1984). Resident attitudes to tourism in North Wales. *Tourism Management, 15* 358-369.
- Snaith, T., & Haley, A. (1999). Residents' opinions of tourism development in the historic city of York, England. *Tourism Management, 20*, 595-603.
- Teye, V., Sonmez, S. F., & Sirakaya, E (2002). Residents' attitudes toward tourism development in Ghana: Comparison of two cities. *Annals of Tourism Research, 29*, 668-688.
- Tomljenovic, R., & Faulkner, B. (1999). Tourism and older residents in a Sunbelt resort. *Annals of Tourism Research, 27*, 93-114.

- Tourism Bureau, R.O.C, Taiwan. (2006). *Orchid Island*. Retrieved August 5, 2006, from [http://202.39.225.132/jsp/Eng/html/travel\\_tour/subject\\_introduce.jsp?subject\\_id=11+15&update=2002-09-17](http://202.39.225.132/jsp/Eng/html/travel_tour/subject_introduce.jsp?subject_id=11+15&update=2002-09-17)
- Tourism Bureau, R.O.C, Taiwan. (2006). *Taiwan's offshore islands*. Retrieved August 5, 2006, from [http://202.39.225.132/jsp/Eng/html/travel\\_tour/subject\\_introduce.jsp?subject\\_id=11+15&update=2002-09-17](http://202.39.225.132/jsp/Eng/html/travel_tour/subject_introduce.jsp?subject_id=11+15&update=2002-09-17)
- Um, S., & Crompton, J. (1987). Measuring resident's attachment levels in a host community. *Journal of Travel Research*, 26, 27-29.
- Urry, J. (1991). The sociology of tourism. *Progress in Tourism, Recreation and Hospitality Management*, 3, 48-57.
- Wikipedia (n.d.). *Taiwanese Aborigines*. Retrieved April 5, 2006, from [http://en.wikipedia.org/wiki/Taiwanese\\_aborigines](http://en.wikipedia.org/wiki/Taiwanese_aborigines)