AN IMAGE STUDY OF OKLAHOMA AS AN INTERNATIONAL TRAVEL DESTINATION

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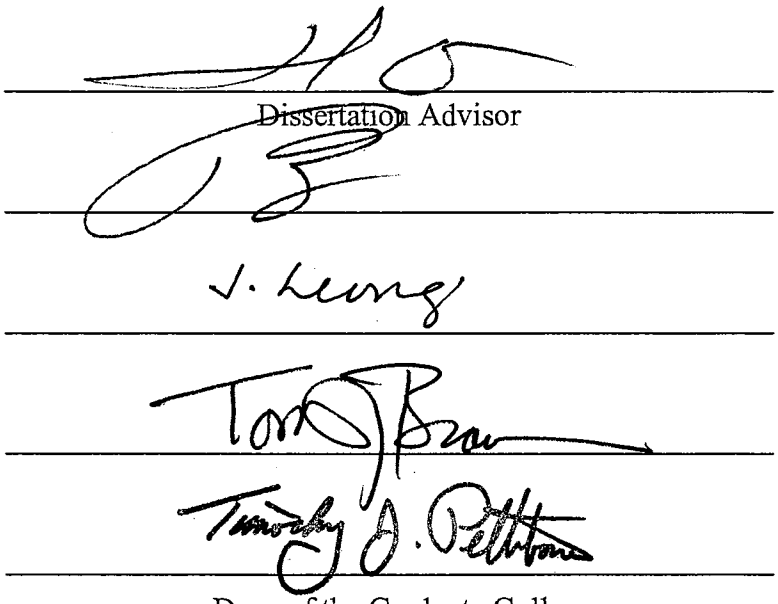

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CHAPTER ONE - INTRODUCTION

1.1 INTERNATIONAL TOURISM IN THE UNITED STATES

According to the World Tourism Organization, the United States ranked second behind France for world tourist arrivals in 2000. In terms of travel receipts, the U.S. ranks first among worldwide destinations. The United States' share of world travel receipts was 18 percent in 2000. Spending by international travelers to the United States is more than double the level than for any other country.

According to TIA (2003a), international travel is one of the largest exports for the United States, ranking ahead of agricultural goods, consumer goods, and motor vehicles. It is the second largest service export category, and accounts for 37 percent of all service exports. Over the past decade, the United States has held the position as the number one travel and tourism destination for total receipts generated worldwide and ranked second or third destination for number of visitor arrivals. It is noted that a 1% upward shift in the existing international travel market could generate an additional $600 million of revenue to support thousands of jobs in the United States (Doggett, 2002).

1.1.1 Major International Markets and International Tourists' Travel Characteristics

Among the international tourists, more than half of the arrivals were overseas travelers (from countries other than Mexico and Canada). European visitors made up nearly half of the overseas travelers, with Asians coming in next at almost 30 percent, and Latin Americans not far behind at 20 percent. Table 1 shows the major tourist-generating markets.

Table 1. International Arrivals to the U. S. in 2000

	Arrivals to U.S.	Market Share
Canada	14,594,000	28.67%
Mexico	10,322,000	20.28%
Japan	5,061,000	9.94%
England	4,703,000	9.24%
Germany	1,786,000	3.51%
France	1,087,000	2.14%
Italy	612,000	1.20%
Netherlands	553,000	1.09%
Australia	540,000	1.06%
Switzerland	395,000	0.78%
Others	11,248,000	22.10%
Total	50,900,000	100%

Source: arrivals to the U.S.: U.S. Department of Commerce, TIA, Tourism Industries

According to Travel Industries (2003a), generally, international visitors to the U. S. have the following characteristics:

- On a per capita basis, overseas visitors spent about six times as much as their domestic U.S. counterparts for travel in the country in 2000.
- In 2000, the average overseas visitor's length of stay in this country was just below 16 nights, almost five times as long as the average domestic trip.
- Top activities of overseas travelers in 2000 were: shopping (87%), dining in restaurants (84%), sightseeing in cities (43%), amusement/theme parks (31%), visiting historical places (31%), visiting small towns/villages (28%), water sports/sunbathing (23%), touring the countryside (21%), visiting national parks

(20%), visiting art galleries/museums (20%), and visiting cultural heritages sites (18%).

- Overseas travelers to the United States were predominantly repeat visitors (78%), with one in five (22%) being first time visitors.

1.1.2 Popular Travel Places

According to the 2000 *In-Flight Survey on Overseas Travelers to the United States* (TIA, 2002), travel to the United States by overseas tourists increased to a record of 26.0 million in 2000 (excluding arrivals from Canada and Mexico), or up 6% over 1999. California maintained its top state visited ranking by overseas travelers (6.4 million) in 2000, followed by Florida hosting over 6.0 million tourists. For its sources of international tourists, California mainly relies upon Asia (2.5 million, up 13%), Western Europe (2.4 million, down 11%), Oceania (444,000, up 14%), and South America (341,000 down 6%). Florida relies upon Western Europe (2.9 million, up 7%), South America (1.8 million, up 15%), the Caribbean (642, 000, down 22%), and Central America to generate international tourists to the state.

The top ten most welcomed states/territories by international tourists include: California (6.4 million, 24.5%), Florida (6.0 million, 23.2%), New York (5.9 million, 22.8%), Hawaii (2.7 million, 10.5%), Nevada (2.4 million, 9.1%), Massachusetts (1.4 million, 5.5%), Illinois (1.4 million, 5.3%), Guam (1.3 million, 4.5%), Texas (1.2 million, 3.5%), and New Jersey (0. 9 million, 3.4%). The popularity of the United States as a top international travel destination does not conceal the fact that not all the states are as popular as California or Florida. As illustrated in Table 2, a big gap can be seen among the states in terms of arrivals and market share. Oklahoma, for instance, received 73,000

international tourists in the year 2000, accounting for 0.3% of the total international arrivals to the United States.

Table 2. Overseas Visitors to Select U.S. States and Territories 2000-1999 (Ranked by 2000 Market Share)

2000 Rank (top 10)	State/ Territory Visitation	2000 Market Share	2000 Visitation ('000)	2000 Rank (last 10)	State/ Territory Visitation	2000 Market Share	2000 Visit-ation ('000)
1	California	24.5%	6,364	32	Maine	0.4%	104
2	Florida	23.2%	6,026	32	New Mexico	0.4%	104
3	New York	22.8%	5,922	34	Alabama	0.3%	78
4	Hawaiian Islands	10.5%	2,727	34	Kentucky	0.3%	78
5	Nevada	9.1%	2,364	36	Alaska	0.2%	52
6	Massa-chusetts	5.5%	1,429	**	Wyoming	0.4%	98
7	Illinois	5.3%	1,377	**	Oklahoma	0.3%	73
8	Guam	4.5%	1,325	**	Rhode Island	0.6%	147
9	Texas	3.5%	1,169	**	Vermont	0.4%	98
10	New Jersey	3.4%	909	**	Kansas	0.2%	49

Source: U.S. Department of Commerce, TIA, Tourism Industries, 2001.

*: Excludes Canada and Mexico

**: the visitation and market share of some states/territories for the year 2000 were not available, and thus were represented with the number for the year of 1999.

1.1.3 Striving for International Tourism

In 2001, the number of international tourists to the United States dropped by 10.6 percent, due in large part to the September 11 terrorist attack on America. The tourism industry accounts for nearly 30 percent of the jobs lost since 9/11. As anti-American sentiment grows around the world, the federal government prepared to spend $50 million to promote the United States as a tourist destination (Hoover, 2003). The American tourism industry has lobbied heavily for a marketing campaign, contending the United States has been losing foreign tourists to other countries that have tourism ministries, and spend tens of millions of dollars, promoting themselves as destinations.

1.2 INBOUND TOURISM IN OKLAHOMA

Though Oklahoma's market share in international tourism business is relatively small, this does not mean that international tourism is not important to Oklahoma or that its tourism sector should not emphasize in promoting international tourism.

1.2.1 Oklahoma's Travel Attractions

Oklahoma is an attractive travel destination for international visitors. For instance, culturally, Oklahoma is a diverse state. Oklahoma has a deep-rooted Native American history. Once the land of "cowboys and Indians," the state has kept detailed documentation of its cultural history in museums. With state parks, mountains, plains and forests, Oklahoma's landscape is almost as varied as its culture, boasting everything from golden prairies to evergreen forests, pristine mountains to sparkling lakes and rivers, and sand dunes to gypsum caves. One characteristic that always impresses visitors is the warm hospitality and down-home charm they encounter in Oklahoma.

1.2.2 Oklahoma's Major Tourist-generating Markets

According to Oklahoma Tourism and Recreation Department (OTRD), since neither Oklahoma City nor Tulsa airports are gateways for international tourists, there is no way to capture the numbers of international tourists. The only reliable information is from the registration books at the twelve Welcome Centers, indicating the numbers of tourists from various countries. Table 3 shows that Oklahoma's international tourists are mainly from four countries, i.e. Canada, the United Kingdom, Germany, and Mexico. For instance, in the fiscal year 2001, there were 7,798 tourists from Canada, 2,609 from the United Kingdom, 2,488 from Germany, and 1,578 from Mexico. These four countries account for 65% of Oklahoma's total international arrivals. Table 4 illustrates the numbers of tourists to the United States and Oklahoma from the top ten markets. For instance, four major tourist –generating markets for the United States are Canada, Mexico, Japan, and the United Kingdom. Oklahoma's market shares in these markets are only 0.06%, 0.01%, 0.01%, and 0.04%, respectively. From Oklahoma's very small market share in the top ten markets, it seems that Oklahoma does not have any special or unique attraction to any of these markets. In other words, Oklahoma may not be a popular destination in the international travel market.

1.2.3 Tourism Awareness Campaign – Tourism, Oklahoma's Newest Cash Crop

Despite its small market share of international tourism in the country, tourism as a whole has become Oklahoma's third largest industry, contributing $3.6 billion annually to the state's economy. Becoming aware of the importance and its great potential, the State of Oklahoma has currently launched a statewide tourism awareness campaign - 'Tourism, Oklahoma's Newest Cash Crop' (Marks 2002). The purpose of this campaign

is twofold: to increase the awareness of tourism importance among Oklahoma's political and economic leaders and to call on all Oklahomans to make an effort to improve Oklahoma's attractiveness and destination image.

Table 3. International Visitors Visiting Oklahoma's Welcome Centers

Ranks	Fiscal Year* 2001	Tourists in FY2001	Proportion (%)	Fiscal Year 2000	Numbers in FY2000	Proportion (%)
1	Canada**	7,798	34.9	Canada	7,955*	36.2
2	U. K.	2,609	11.7	Germany	2,626	12.0
3	Germany	2,488	11.2	U.K.	2,108	9.6
4	Mexico	1,578	7.1	Mexico	1,334	6.1
5	Japan	648	2.9	Australia	830	3.8
6	France	525	2.4	Japan	591	2.7
7	Australia	475	2.1	Netherlands	508	2.3
8	Netherlands	464	2.1	France	465	2.1
9	Switzerland	309	1.4	Italy	303	1.4
10	Brazil	256	1.2	Switzerland	245	1.1
	Others	5,640	25.27	Others	4,987	22.72
	Total tourists	22,320	100	Total tourists	21,952	100

Source: OTRD

*: The fiscal year for the State of Oklahoma runs from July 1 to June 30.

**: For the FY 2001, there were 3,708 tourists from Ontario, and 1,407 tourists from Manitoba; For the FY 2000, there were 3,474 tourists from Ontario, and 1,342 tourists from Manitoba.

As advocated by Jane Jayroe, Executive Director of Oklahoma Tourism and Recreation Department, tourism may bring Oklahomans the following benefits (Jayroe, 2001):

- Tourism makes money for Oklahoma and its citizens; that's why the campaign is called 'cash crop' – the industry in effect 'grows money'.

- Tourism generates jobs, economic growth and prosperity in the form of restaurants, hotels and attractions; the tourism industry has banded together to help bring this public service message to Oklahomans.
- Tourism is a sound investment. Every dollar Oklahoma spends selling the state as a travel destination generates $15 in direct spending.

Table 4. 2000 Profiles of International Travelers to the U. S. and Oklahoma

	Arrivals to U.S.	Arrivals to Oklahoma	Oklahoma Market Share
Canada	14,594,000	7,955	0.055%
Mexico	10,322,000	1,334	0.013%
Japan	5,061,000	591	0.012%
U. K.	4,703,000	2,108	0.045%
Germany	1,786,000	2626	0.146%
France	1,087,000	465	0.043%
Italy	612,000	303	0.050%
Netherlands	553,000	508	0.092%
Australia	540,000	830	0.154%
Switzerland	395,000	245	0.062%

Source: Arrivals to the U.S.: U.S. Department of Commerce, ITA, Tourism Industries;
Arrivals to Oklahoma: Oklahoma Tourism and Recreation Department

1.2.4 International Tourism – Help Oklahoma's Economy to Prosper

In terms of international tourism, according to the Oklahoma Tourism and Recreation Department (OTRD), its marketing and promotions arm, the Travel and Tourism Division, has made advances in the international marketing program. For instance, in order to attract German tourists, the division has hosted 37 German tour operators and journalists since 1994. As a result, Oklahoma was featured in more than 20 German tour operator catalogs (*Travel and Tourism,* 2002).

According to Oklahoma International Congress (2003), if Oklahoma's economy is to prosper in the 21st century, it must become and remain globally competitive. There are several ways for Oklahoma to perform in the international arena and expand its international trade. One way is to increase Oklahoma tourism among foreign visitors to the U.S.

It is believed that increasing Oklahoma's awareness in the international society is not only the concern of Oklahoma's tourism industry. Oklahoma's desire for preparing for global competitiveness also requires destination image improvement in the international market. From the international standpoint, Oklahoma lags far behind the majority of American states on many different fronts in both the region and the nation; there are internationalization needs meriting greater attention and other needs yet to be addressed. Some of the general goals, which have been established for the state, are to promote and expand Oklahoma's international trade and to increase Oklahoma's public awareness of and active support for globalization. It is certain that the state's tourism awareness campaign will be conducive to increasing Oklahoma's destination image in the international society.

1.3 Importance of Destination Image Study

In order to effectively promote Oklahoma in the international travel market, it is important to understand its destination images as perceived by international visitors. In other words, Oklahoma's tourism marketers need to create or strengthen the type of images in the international travel market in order to market Oklahoma more effectively.

According to Echtner and Ritchie (1993), creating and managing an appropriate destination image are critical to effective positioning and marketing strategy. Gartner

(1996) stressed that understanding images held by target markets is essential to avoid moving the image into a position held by an able and strong competitor. It is generally recognized that one of the most important components of a marketing strategy is product positioning. Basically, positioning involves creating the appropriate image of the product in the minds of the consumers in the targeted markets. Because of their importance, destination-marketing organizations often devote considerable time to creating images and to channeling these through various media to targeted consumers who, it is hoped, will decode the messages and respond appropriately (Goodall, 1990).

The importance of image analysis in tourism marketing has been addressed by a number of researchers such as Embacher and Buttle (1989), Lew (1987), Reilly (1990), and Schiffman and Kanuk (1994), etc. It is suggested that image is the most important aspect of a tourist attraction from a marketing point of view and an accurate assessment of product image is a prerequisite to designing an effective marketing strategy. Hence, measuring and managing destination image should be a major priority for destination marketing staff. In order to remain competitive, destination marketers must be able to understand how tourists perceive a destination's products and services. Different travel destinations may have different images specifically made to fulfill the various needs of international tourists. Locations and sites may project distinctive images as a reflection of the uniqueness of their specific local environment, culture and economy (Gregory, 1989, Stabler, 1988) and destinations need to project their distinctive images in order to enhance tourism appeal (Shaw and Williams, 1994). Developing a competitive position among tourism destinations is usually accomplished by creating and transmitting a favorable image to potential tourists in target markets (Gartner, 1993). Tourism

destinations often compete on nothing more than the images held in the minds of potential tourists (Baloglu and McCleary, 1999).

1.4 Problem Statement

In order to develop and boost Oklahoma's international tourism, a primary step and task for Oklahoma's tourism managers and marketers is to identify and create a favorable destination image, which can be used to induce potential international tourists. Such an understanding will provide useful information for developing effective marketing strategies that will result in a wise investment of limited resources as well as satisfying potential tourists' expectations and needs. However, a search of previous studies and reports on Oklahoma's tourism indicates that little empirical research has ever been conducted in identifying the image of Oklahoma as an international travel destination, albeit such an understanding is a prerequisite and necessity in marketing Oklahoma as an attractive international travel destination. Considering the importance of image study in destination marketing, it is essential for Oklahoma to identify its favorable destination image prior to actual promotion and advertising campaigns.

1.5 Purpose and Objectives of This Study

The purpose of this study, therefore, is to study Oklahoma's images as an international travel destination. Specifically, this study is expected to achieve the following objectives:

1) To identify Oklahoma's distinct image attributes, both cognitive and affective.
2) To detect visitors' perceived differences of image attributes between first time visitors and repeat visitors.

3) To explore the underlying dimensions of both cognitive and affective image attributes of Oklahoma and examine Oklahoma's most and least favorable images as an international travel destination.
4) To identify the important destination image constructs affecting visitors' likelihood of revisiting Oklahoma and visitors' likelihood of recommending to others
5) To identify the important destination image constructs contributing to Oklahoma's overall attractiveness (i.e. visitors' likelihood of return and visitors' likelihood of recommending to others) as an international travel destination.
6) To analyze and discuss the interrelationship between cognitive constructs and affective constructs.
7) To examine whether destination images have any significant impact on predicting international tourists' inclined travel behaviors.
8) To explore the relationship between visitors' perceived images and their demographics and travel characteristics.
9) To recommend marketing strategies to improve the image of Oklahoma as an international travel destination.

1.6 Significance of the Study

1.6.1 Theoretical Contribution

The theoretical contribution of this study is the introduction of using two image components, cognitive and affective, to assess destinations' image, the two components'

interrelationship, and destination image's role in predicting tourists' travel behavior. This study could add to the existing knowledge by providing empirical evidence for the image's two major components for their interaction in formulating destination's image and predicting visitors' potential travel behavior. Currently, there is no empirical study examining both cognitive and affective images, and image's influence on visitors' inclined behavior. Understanding each image component's role in predicting visitors' behavior would assist destination marketers in making the most effective use of the limited time, money, and other resources in practical marketing. Moreover, the result of the study will enrich the literature about international tourism in Oklahoma, given that little has been done in previous studies about Oklahoma's international tourism.

1.6.2 Practical Contribution

As Oklahoma's travel and tourism industry is playing a more and more important role in generating employment, wages, and state and local tax revenues, the state is implementing various kinds of tourism marketing campaigns to increase awareness of Oklahoma as a travel destination in both domestic and international markets. The information obtained from this study would help Oklahoma's tourism authority in planning a comprehensive marketing plan and establishing a competitive market position.

In terms of tourism marketing, destinations usually compete for nothing more than the images held in the minds of tourists. Destination image plays a critical role in creating destinations' position, designing tour products and launching promotional campaigns. By exploring and identifying Oklahoma's image and examining its influence on visitors' potential travel behavior, findings of this study will guide Oklahoma's tourism marketers to promote Oklahoma in a more effective way. Oklahoma is not a top

destination in the United States; the information about international visitors' perceptions about Oklahoma is quite limited. This study represents an initial attempt in understanding Oklahoma' destination image as held by international visitors.

1.7 Definitions of Terms

The followings are some of the key terms used in this study:

International Visitors

In this study, international visitors to Oklahoma refer to all the foreign visitors above age 18 who once visited any of Oklahoma's twelve Welcome Centers during the period of August 1 – November 30, 2002. American residents are excluded from this definition.

Destination Image

Crompton (1979a) defined image as the sum of beliefs, impressions, ideas, and perceptions that people hold of objects, behavior, and events. Assael (1984) defined destination image as the total perception of the destination that is formed by processing information from various sources over time. Kinnear and Taylor (1987) defined image as an average of many separate attitudes toward a company, brand, or concept. Through a literature search, it was found that other related conceptual descriptions of image such as those by Gartner (1989) and Reilly (1990) are about the same. To summarize their views, destination image could be defined as a sum of perceptions, beliefs or impressions that visitors hold of a travel destination. Three major image components are: cognitive image, affective image, and conative image.

Cognitive, Affective, and Conative Images

According to Gartner (1996), destination image(s) are made up of three distinctly different but hierarchical interrelated components: cognitive, affective, and conative. The cognitive component is derived from fact and may be viewed as the sum of beliefs and attitudes of the object leading to some internally accepted picture of its attributes (external forces, pull attributes, physical, and functional). The affective component of image is related to motives in the sense that it is how a person values the object under consideration (internal forces, push attributes, psychological, and symbolic). After processing external and internal stimuli about a destination, a decision is made whether or not to travel to the area. This act is the conative component. Together, the three components of image form the travel decision process.

1.8 Organization of This Study

This study is divided into five chapters. Chapter One introduces an overview of the tourism development in the United States, and efforts the State of Oklahoma made in developing Oklahoma into a successful travel destination in both domestic and international travel markets. This chapter discusses the importance of understanding destinations' image prior to actual marketing activities. Finally, it presents the problem statement of this study, objectives, and theoretic and practical significance of this study. Chapter Two reviews literature about previous studies on destination image, image components, and image components' role in the destination selection process. Some critical issues about image studies are raised and hypotheses are developed to guide this study. Chapter Three is about the methodology applied in this study such as research

design, instrument, sampling plan, pilot test, and data analyses. Chapter Four reports the results of the data analyses and hypotheses testing. The last chapter, Chapter Five, discusses the findings, implications, and recommendations.

1.9 SUMMARY

This chapter introduces the research topic by discussing the overview of Oklahoma's international tourism, the problem statement, the objectives of this study, the theoretical and practical significance of this study, the definitions of terms, and the organization of the study.

CHAPTER TWO - LITERATURE REVIEW

2.1 DEFINITIONS OF DESTINATION IMAGE

The importance of the tourist destination's image is widely acknowledged, since it affects potential visitors' subjective perception and consequent behavior and destination choice (Echtner and Ritchie, 1991, Stabler, 1988). "Perceptions, rather than reality are what motivate consumers to act or not act" (Guthrie and Gale, 1991: 555).

A comprehensive survey of the definition provided in the major destination image measurement studies was conducted and presented by Echtner and Ritchie (1991) as illustrated in Table 5. It was observed that although many researchers in the tourism field make frequent usage of the term 'destination image', a precise definition of it is often avoided.

A dictionary definition of image is "mental conception, perception or idea". According to Ditcher (1985), the concept of image can be applied to a political candidate, a product, or a country. It describes not individual traits, but the total impression an entity makes on the minds of others. Crompton (1979a) defined image as the sum of beliefs, impressions, ideas, and perceptions that people hold of objects, behavior, and events. Assael (1984) defined destination image as the total perception of the destination that is formed by processing information from various sources over time. Kinnear and Taylor (1987) defined image as an average of many separate attitudes toward a company, brand, or concept. Through a literature search, it was found that other related conceptual descriptions of image such as those by Gartner (1989) and Reilly (1990) are nearly the same. To give a description of destination image by incorporating the above views,

Table 5. Definitions Used by Destination Image Researchers

Reference	Objective	Definition of Image
Hunt (1975)	To measure the images of four states: Utah, Montana, Colorado, Wyoming	"Perceptions held by potential visitors about an area"
Crompton (1977)	To measure the image of Mexico	"Organized representations of a destination in a cognitive system"
Goodrich (1977a)	To measure the image of none destinations: Florida, Hawaii, Mexico, California and five Caribbean islands	Not defined
Crompton (1979b)	To measure the image of Mexico in different States of the United States	"Sum of beliefs, impressions, ideas, and perceptions that people hold of objects, behavior, and events"
Pearce (1982)	To measure and compare the pre-travel and post-travel images of seven countries	Not defined Not defined
Haahti & Yavas (1983)	To measure the image of Finland (twelve countries included in the survey)	Not defined
Crompton & Duray (1985)	To measure the image of Texas (while testing alternative approaches to importance-performance analysis)	Not discussed
Kale & Weir (1986)	To measure the image of India	"Perceptions or impressions of a place"
Phelps (1986)	To measure pre-travel and post-travel images of Menorca	"How a country is perceived relative to others"
Tourism Canada (1987)	To measure the image of Canada in various major tourism generating markets	"Impressions that a person ...holds about a state in which they do not reside"
Gartner & Hunt (1987)	To measure the change in Utah's image over a 12 year period	"Perceptions of vacation attributes"
Richardson & Crompton (1988)	To explore differences in images held of USA and Canada between French and English Canadians	"A complex combination of various products and associated attributes"
Gartner(1989)	To measure the images of four states: Utah, Montana, Colorado, Wyoming (utilizing multidimensional scaling techniques)	"Perceptions of potential tourist destinations"
Calantone, et. al. (1989)	To measure the images of eight Pacific Rim countries held by tourists from various countries of origin	"Not individual traits ...but the total impression an entity makes" (ref.: Ditcher)
Reilly (1990)	To measure the image of Montana	

Source: Echtner and Ritchie (1991: 8)

destination image could be regarded as a sum of perceptions, beliefs or impressions that visitors hold of a travel destination. Researchers have used different names in describing image components. In order of image-derived time, there are organic, induced, and complex images. In terms of different aspects, there are cognitive (physical, functional, pull), affective (psychological, symbolic, push), and conative images. All these components formulate destination's whole image.

2.2 Characteristics of Destination Image

In terms of destination image characteristics, Gartner (1996) concluded that destination image should have the following characteristics:

a) Tourist images change slowly; the larger the entity the more slowly the image changes. The reason is that a tourism image is made up of many different parts, including the natural resource base in which activities take place, the socio-cultural system that governs the provision and type of tourist services, and the man-made structures that serve the needs of tourists and may also provide some of the attractions.

b) Induced image formation attempts must be focused and long term. As a result of the time it takes to change an image, any induced image formation programs must be focused on specific destination images and budgeted for long-term exposure.

c) The smaller the entity in relation to the whole, the less of a chance to develop an independent image, i.e. the image of a smaller entity is subject to the image(s) held by a larger (dominant) entity. Gartner (1996) commented, "Communities in a region can use this tendency to their advantage however as they can "piggy back" on a strong state image in their advertising and promotion programs," (p. 207).

d) To be effective, image change depends on an assessment of presently held images. Changing an image depends on knowing what images prospective travelers now hold and initiating efforts to reinforce existing images or move images in a new direction.

To create a new image or change an existing image is a long-term strategy. First, tourism marketers should assess the present images. Then, in order to improve, marketers should focus on the induced image formation process instead of the organic image formation process. As for destinations adjacent to other world famous destinations, the task of promoting its image to long distance tourists is even more difficult since the entire area's image is dominated by those famous places. The characteristics indicate that within a certain region, a less attractive destination will find it harder to compete with its nearby competitors in creating a strong and positive image.

Gunn (1988) stated that marketers could do little about changing the organic image; however, they can influence induced image through promotions and publicity. Besides, visitors tend to have a positive image about destinations they have visited (Chon, 1987). Visitors tend to have more favorable images than non-visitors do (Ahmed, 1991). In terms of destinations with negative images, Ahmed (1991) proposes six strategies to correct negative images:

1) Emphasize the positive instead of the negative components of the overall images.
2) Schedule sport events, cultural festivals, and ethnic food fairs.
3) Organize familiarization tours for travel writers, journalists, travel agents, and tour operators.

4) Use the most favorable aspects of a destination that cannot be disputed by portraying realities and dispelling misconceptions.

5) Bid to host international travel and tourist conventions; and

6) Turn a negative image to a positive motivator for tourists who are curious about the natural or man-made disasters by organizing a commemoration of such events.

According to Gregory (1989), each location may project distinctive images as a reflection of the uniqueness of its specific local environment, culture, and economy. Each locality is varied and complex, with each having its own landscape, history and traditions, cultural patterns, community values and power relations, and these come together in a unique way within the locality. In order to enhance tourism appeal, Shaw and Williams (1994) suggested that destinations needed to project their distinctive images. Stabler (1988) suggested that individuals have different images of tourism. This makes it possible to segment markets by appealing to specific nationalities or groups of tourists of differing socio-economic status, ages or interests. It is also possible to differentiate the image according to seasons and activities and facilities offered. By doing so, tier-two travel destinations can walk out of the shadow of the surrounding tier-one destinations' overwhelming attractiveness and identify their own unique destination images.

Gallarza et al. (2002) discussed the relativistic nature of destination image. According to Gallarza et al. (2002), a concept is relativistic when it is simultaneously subjective (changes from person to person) and comparative (involves perceptions among various objects). Image is always subjective and not everyone has the same perceptions. Image is a perception that normally refers to one particular object as opposed to other

objects. The relativism has invited a line of research studies on positioning and competitive image (Calantone et al. 1989, Crompton et al., 1992, Guthrie and Gale, 1991, and Haahti, 1986).

Despite its relevance to tourism marketing, research on destination image faces many difficulties. According to Gallarza et al. (2002), one difficulty is due to tourism product's characteristics such as complexity and multidimensionality. Another is that destination marketing involves the consumer physically moving to the behavior scenario. There is also great subjectivity in providing a tourism service. Moreover, the intangibility of tourism service hinders image assessment as it depends on invisible elements of pre-visit selection and a pre-taste of the destination (Fakeye and Crompton, 1991, cited in Gallarza et al., 2002).

2.3 Components of Destination Image

Previous studies recognized a lack of conceptual framework around destination image; there was still no consensus in the process and nature of destination image formation. Fakeye and Crompton (1991) observed, "although such studies have become a staple of the tourism research agenda, invariably they have been atheoretical and lacking in any conceptual framework" (p. 10). Echtner and Ritchie (1991) stated, "researchers have not been successful in completely conceptualizing and operationalizing destination image," (p. 10). Consequently, although this topic has been widely discussed for over three decades, there is still a need for better understanding the concept and dimensions of destination image.

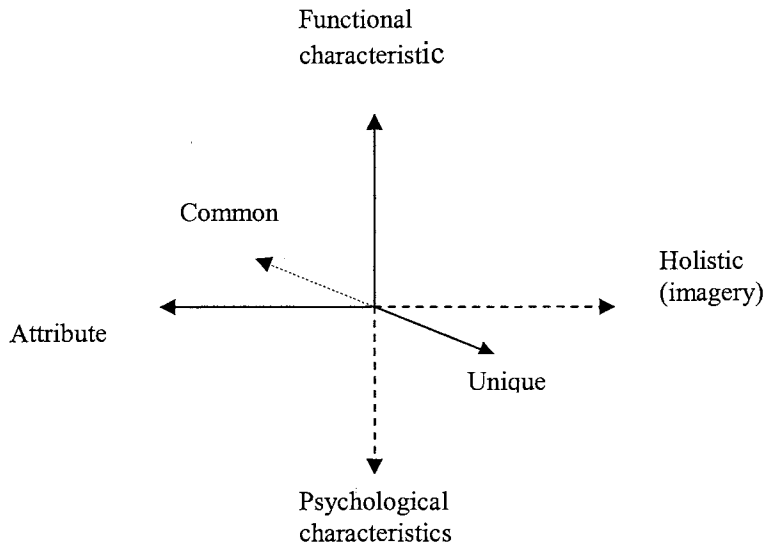
There are some discrepancies among researchers in determining the components that make up the overall destination image. For instance, for Crompton (1979),

destination image possesses cognitive components. Echtner and Ritchie (1991) contributed greatly to the difficult task of framing destination image, by acknowledging the functional/psychological, the common/unique, and the holistic/attribute-based axes within the cognitive context. Along the cognitive line, Milman and Pizam (1995) suggested a unique model that destination image consists of three different components: the product (attractions), the hosts' behavior and attitude, and the environment (e.g. weather, facilities). For Baloglu and McCleary (1999) and Embacher and Buttle (1989), destination image constitutes both cognitive and affective components. For Gartner (1996) and Dann (1996), destination image are formed by three interrelated components: cognitive, affective, and conative.

2.3.1 Functional/psychological, Common/unique, and Holistic/attribute

The conceptual framework of destination image developed by Echtner and Ritchie (1991) is illustrated in Figure 1. The framework consists of three continuums. Echtner and Ritchie (1993) suggested, "destination image should be composed of perceptions of individual attributes (such as climate, accommodation facilities, friendliness of the people) as well as more holistic impressions (mental pictures or imagery) of the place,"(p.3). Functional images are those, which are directly observable or measurable and psychological are those, which are less tangible or more difficult to observe or measure. In terms of the common-unique continuum, Echtner and Ritchie (1993) commented, "...images of destinations can range from those perceptions based on "common" characteristics to those based on "unique" feature or auras,"(p. 4). Figure 1 illustrates that a combination of methodologies is necessary to capture destination image in its entirety.

Figure 1. The Components of Destination Image



Source: Echtner and Ritchie (1991)

2.3.2 Functional and Symbolic Image

Some scholars classify images into functional images and symbolic images (Chon and Olsen, 1991, Echtner and Ritchie, 1993, and Sirgy, 1982). The functional destination image refers to those associated with physical evidence and the tangible component of destinations. The symbolic image of the destination refers to the intangible aspect of destinations such as atmosphere, mood of the place, and stereotypic personality of destinations. Literally, destination's functional image seems to be more related to cognitive image; while symbolic image is closely associated with affective image.

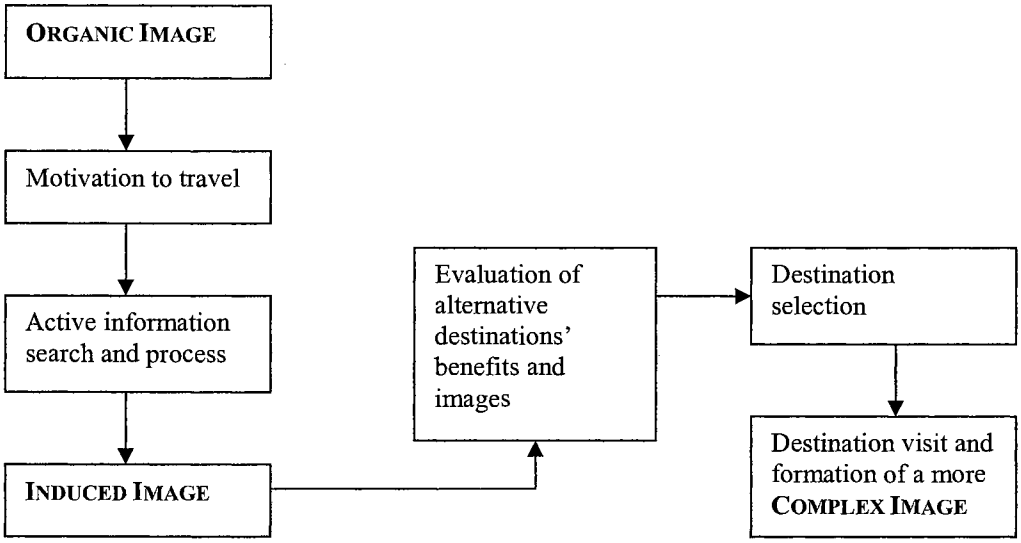
2.3.3 Organic, Induced, and Complex Image

Gunn (1972) referred to images as being formed either on an induced or organic level. He argued that organic images are formed as a result of exposure to newspaper

reports, magazine articles, TV reports, and other non-tourism specific information sources, while induced image formation is a function of the marketing and promotion efforts of a destination area. While little can be done to influence organic image, marketers can induce an image by investment in promotion (Gunn 1988). Phelps (1986) contended that images are formed on two levels, primary and secondary. Secondary image formation results from any information received from another source. Primary image formation results from actual visitation. In a sense, Phelps (1986) grouped both Gunn's induced and most of the organic image formation agents into one type, and separated actual visitation into a distinctly different form of image formation.

According to Fakeye and Crompton (1991), development of destination images proceeds through three stages. An organic image is formed in the absence of marketing, based on news reports or general knowledge of history. The induced stage involves processing of destination-marketing material. In the final stage, the actual visitation and destination results in a complex image (see Figure 2). A potential visitor develops organic images of a comparatively large awareness set of potential destinations. Once the desire to take a vacation emerges, the prospect engages in an active information search guided by whatever motives are driving the desire to travel. As a result, the potential traveler develops more refined induced images of alternative destinations. Upon visiting a selected travel destination, a tourist will develop a more complex image resulting from actual experience in the destination, and experience will feed back and influence the selection process of alternative destination on the next occasion. The more complex image allows people to respond more in terms of a differentiated view and less in terms of simple stereotyping (Crompton, 1979a).

Figure 2. A Model of a Tourist's Image Formation Process



Source: Fakeye and Crompton (1991: 11)

2.3.4 Cognitive, Affective, and Conative Image

According to Gartner (1996), "destination image(s) are made up of three distinctly different but hierarchical interrelated components: cognitive, affective, and conative. The interrelationship of these components ultimately determines predisposition for visitation" (p. 457). Based on Gartner's view, the cognitive component is derived from fact and may be viewed as the sum of beliefs and attitudes of the object leading to some internally accepted picture of its attributes (external forces, pull attributes). The affective component of image is related to motives in the sense that it is how a person values the object under consideration (internal forces, push attributes). It was considered that people travel because they are pushed into making travel decisions by internal forces and pulled by external forces of the destination attributes (Crompton, 1979a, Dann, 1977). For instance, a visitor is attracted to a beach destination because he thinks the beach is beautiful (pull factor); and he can enjoy full relaxation at the beach (push factor). After

processing external and internal stimuli about a destination, a decision is made whether or not to travel to the area. This act is the conative component. Gartner (1996) pointed out that the conative component of image is analogous to behavior because it is the action component. Together, the three components of image form the travel decision process.

Gartner (1989) presents a study of great importance for its conceptual/empirical integration. Gartner (1993) suggested that the structure of destination image was constituted of three dimensions including cognitive, affective, and conation components, which have a hierarchical relation. Baloglu and McCleary (1999) divided images into cognitive, affective, and overall components. They developed a model that these three image components have a sequential causal relation. For instance, Baloglu and McCleary (1999) hypothesized a serial process of image formation in which cognitive image influences affective image and both combine to form a total image. Ko et al. (2000) stated, "it becomes apparent that the structure of image (one, two or three dimensions), sub-factors of each dimension, and relationships among dimensions (i.e., cognitive, affective, and conation) need to be explored,"(p. 83). The image, as an overall output, comes from a sequence of stages where several elements and factors influence and interrelate (Gallarza et al., 2002).

It seems that both cognitive and affective images held by visitors may influence their travel decisions and buying choices. However, it remains unclear as to whether both cognitive and affective components play some roles in influencing visitors' travel behavior, and how the image components interact with each other in tourists' decision processes.

2.4 Destination Image Formation Process

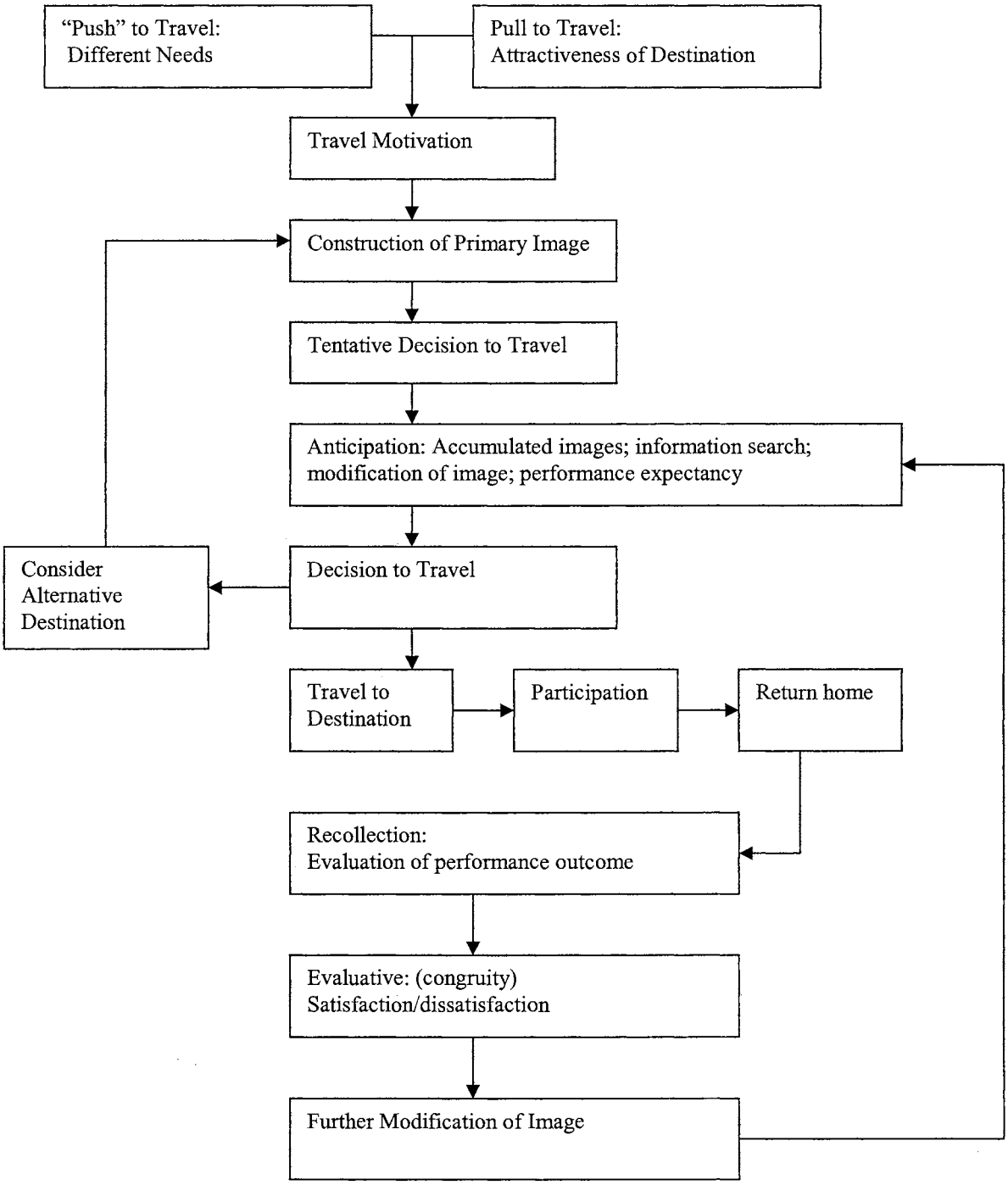
Ko et al. stated, "There has been little empirical research on how the image is involved in the decision making process, attitude formation, and visiting behaviors. Except for Milman and Pizam (1995), most research on destination image deals with the image as a dependent variable, but not independent," (p. 88).

The destination image formation process generates two areas of research interest: destination choice and tourist satisfaction. The image formation process can be related to destination selection intention (Goodrich, 1978, Hunt, 1975) and to tourist satisfaction when actual visitation takes place (Chon, 1990). In both cases, the formation process has multiple components interrelated in a number of stages (Gallarza et al., 2002).

Chon's (1990) model (Figure 3) has actually explained the interrelationship between the different types of image components, such as pull and push factors; organic, induced, and complex image; cognitive, affective, and conative image; expectation/satisfaction; and complex image.

By analyzing the interrelationship of destination image, traveler buying process, traveler satisfaction and dissatisfaction, and the evaluative congruity approach to understand consumer behavior, Chon (1990) developed an integrated model of destination image and traveler's buying process (see Figure 3). In the model, Maslow's hierarchy of needs function as "push" factors and the attractiveness of a region functions as "pull" factors. The two forces function together as antecedent events for individual's travel motivation. Also, a primary destination image (organic image) is formulated at the point when the "push" and "pull" factors interact. Then individual's tentative decision to travel to the destination is formed based on the perceptions of both destination's

Figure 3. Relationship of Destination Image and Traveler Buyer Behavior



Source: Chon (1990)

attractiveness (cognitive image) and likelihood of accomplishing his/her needs and wants (affective image). Through an information search process, the individual modifies his/her accumulated images of the destination, which will help determine his/her performance of the expectancy of the destination (induced image). Then the final decision to travel will be made (conative image). The individual traveler will then come through the stage of travel to destination, participation and return. The actual travel experience will be evaluated related to his/her pre-visit expectation (satisfaction/dissatisfaction). At the final stage, the images of the destination will be further modified (complex image).

2.5 Relationship and Role of Cognitive Image and Affective Image

As Stabler (1988) argued, "... there is some controversy among researchers, whether the choice of a tourist trip is person-determined or destination-determined. This uncertainty reflects a lack of empirical evidence on the role information plays in the creation of image. Is it via personal experiences or that of others or via the supply side communication network?" (pp. 134-135).

2.5.1. Relationship between Cognitive and Affective Images

Echtner and Ritchie's (1993) extensive literature review of tourism destination image measurement revealed that image constructs have been limited to studies dealing with perceptual or cognitive components, where objective attributes or features of destinations were used as a basis for measuring destination images. Baloglu and McCleary (1999) hypothesized a serial process of image formation in which cognitive image influences affective image and both combine to form a total image.

Comparatively, few studies have ever examined affective attributes in the formation of destination images. According to Baloglu and Brinberg (1997), this practice may not be appropriate to study the complexity of destination image and may pose some problems for conceptualizing and measuring images. To deal with the problem, Baloglu and Brinberg (1997) introduced a theoretical affective scale that can be used to study tourist affective images of large-scale environments (i.e. city, state, region, or country). This scale can be used to measure the affective dimension separately from the perceptual or cognitive dimension of image structure. Ko and Park (2000) suggested that what a tourist is consuming or experiencing may not be a destination (or reality); it may represent the symbolic meaning with the destination.

Nonetheless, Williams et al. (1992) suggest that a place is probably best understood by focusing on its symbolic meaning rather than on the sum of its physical attributes. Similarly, Lee, Backman and Backman (1997) emphasize that the psychological attachment is important in understanding tourist behavior, including repeat visitation. As a consequence, the latter, for example helps increase tourist numbers to a destination through referrals and positive word-of-mouth. Likewise, an understanding of their preferences helps establish good business-customer relationships (Haywood, 1989). They suggested that the symbolic image should be a focus of marketing strategy for tourism.

Though not much research has ever discussed the potential role of cognitive image and affective image and their interrelationship, a wide review of destination image studies indicates that almost all researchers have used the same or similar terms of destination's cognitive image and affective image in describing destination image's

components and the formation of destination image. It is found that destinations' two other mostly studied topics, travel motivation and tourist satisfaction, are also closely related to destination image.

2.5.2 Interrelationship between Image Components and Motivation Factors

Based on Fakeye and Crompton's (1991) model of the formation of destination image, as well as Chon's (1990) model of the relationship of destination image and traveler buying behavior, the formation of the different stage of destination images versus their interrelationships with travel motivation and tourist satisfaction can be tracked in a hierarchical way: primary image which is more related with organic image and travel motivation, pre-visit perception (induced image), and post-visit image which refers to tourist satisfaction as well as complex image.

To market tourism services and destinations well, marketers must understand the motivating factors that lead to travel decisions and consumption behavior (Gee, Choy and Makens, 1984). Tourism marketers could use further insights into tourist motivation for the purposes of product development, service quality evaluation and image development (Fodness, 1994). Vacation travel service suppliers and providers need to have accurate and reliable information about their customers in order to successfully market their products. In relation to this, Crotts and Rekom (1994) pointed out that

> "... It is the primary purpose (to have accurate and reliable visitor information) for visitor profile studies; however, seldom do studies of this nature reveal the underlying reasons for the trip and tourists' motives for visiting a particular attraction instead of the competing alternatives. ... Such an understanding can assist management in 'fine-tuning' its abilities to help visitors reach their goals; it can also help an organization define its image to be projected in promotional campaigns."(pp. 99-105).

Travel motivation leads potential visitors to the tentative decision to travel. People travel because of the push and pull factors. Push factors refer to the human needs such as the need for escape, need for changing of pace, and the need for novelty, etc. The pull factors refer to the attractiveness of destinations. These pull factors attract people to visit particular destinations. The pull and push factors build travel motivation and build the primary destination image. At this primary stage, destination image can be reflected by visitors' motivations, since the pull factors can actually refer to the cognitive image, which mainly involves visitors' initial perception and belief in destination's physical attractions. Likewise, the push factors reflect visitors' psychological and mental needs, which are literally correlated with destination's affective image. At this stage, potential visitors' cognitive and affective images of destinations are more organic than induced, with both cognitive and affective images about destination mainly coming from the public media, relatives or friends.

After a travel decision is made, potential visitors start to actively search for information about destinations. At this stage, travel information mainly comes from the promotions of destinations organized by travel-related companies. Potential visitors' image of destinations is called induced image. It is assumed that, at this stage, potential visitors will search for destinations where the physical attractions and facilities (cognitive image) can best match their psychological needs (affective image). More detailed information is gathered and perceptions are modified about travel destinations. The destination that holds the best cognitive image which optimally matches visitors' mental desire is more likely to be chosen, provided that the situational constraints are not a big issue during the whole process. Cook and McCleary (1983) commented that time, money,

and physical distances are important travel inhibitors. According to Cook and McCleary (1983), travel inhibitors are more dominant criteria than facilitators during the final destination selection process. Travel will not take place unless perceived benefits exceed perceived inhibitors.

2.5.3 Interrelationship between Image Components and Tourist Satisfaction

A number of studies have investigated tourist satisfaction with travel destination's image (Chadee and Mattsson, 1996, Chon and Olsen, 1991, Danaher and Arweiler, 1996, Kozak and Rimmington, 2000, Pizam et al., 1978). Chon and Olsen (1991) examined the role of destination images in tourism with regard to consumer satisfaction/dissatisfaction. Their study demonstrated the relationship between the tourist destination image and tourist satisfaction with the destination. Their findings indicated that tourists' satisfaction/dissatisfaction is related to both functional and symbolic congruity. They also found that the functional congruity explained tourists' satisfaction/dissatisfaction better than the symbolic congruity. Chon (1992) found that the level of a tourist's satisfaction/dissatisfaction with a destination area was highly correlated to an evaluative congruity of an individual tourist's pre-visit destination images and his/her post-visit recollection of experiences. Sirgy and Su (2000) observed that research in tourism has identified a significant relationship between tourists' satisfaction/dissatisfaction and tourists' self-image/destination-image congruity. The greater the congruity between the tourists' self-image and the destination image, the greater the satisfaction (p. 343).

It is assumed that, after the visit, both cognitive images and affective images will be compared with actual performance of the travel destination. Destination image is again modified and stored as prior experience to be referenced for future trips. Consequently,

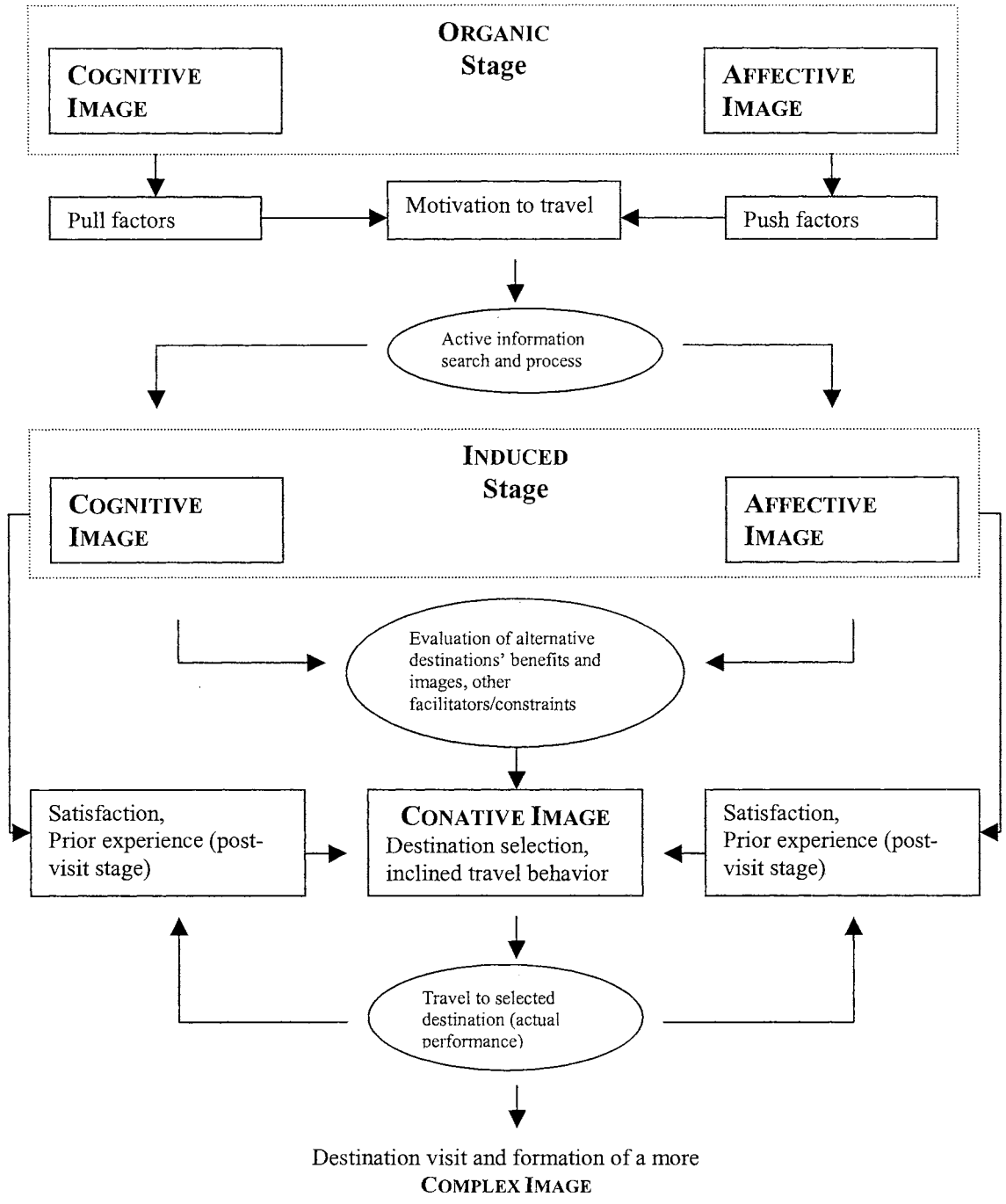
tourist satisfaction will play an important role in determining whether or not to visit the destination again.

2.5.4 Modified Model of Image Components and Travel Decision Process

In conclusion, destination image's important role in destination marketing is partly emphasized by its close interactions with travel motivations and tourist satisfaction. Destination images' two components, cognitive and affective, play a major role in the interrelationship. Based on Fakeye and Crompton's (1991) model of the formation of destination image, as well as Chon's (1990) model of the relationship of destination image and traveler buying behavior, the formation of the different stage of destination images versus their interrelationships with travel motivation and tourist satisfaction can be tracked in a hierarchical way: destination's primary image which is more related with organic image and travel motivation, pre-visit perception (induced image), and post-visit image which refers to tourist satisfaction as well as complex image.

Based on Gartner's (1996) theory on destination image, stating that destination image components constitutes cognitive, affective, and conative images, and also based on the models of Chon (1990) and Fakeye and Crompton (1991), a modified model of the components and formation of destination images was construed (see Figure 4). From the figure, it is illustrated that cognitive and affective images are destination image's two major components. In the process of image formation, the primary stage of image formation starts from the cognitive and affective components initially existing in the form of "organic image", which is primarily derived from non-commercial news, media, and

Figure 4. Modified Model of Image Components and Travel Decision Process



word of mouth. Based on organic image, potential visitors' travel motivation is further stimulated and strengthened as a result of "pull" and "push" effects, which result from the interaction with organic image's cognitive and affective components. Potential visitors make a tentative decision to travel.

Through active search for travel information, which is mainly the persuasive information such as advertisements, promotional campaigns, and news releases, potential visitors' cognitive image and affective image of destinations at the stage of "induced image" become further consolidated. Evaluation of alternative destinations is made and related facilitators and situational constraints for traveling are considered. Cognitive image and affective image are assumed to interact with each other throughout the process. As a result, potential visitors reach the decision step of where to go and what to do for the trip. The image formed at this stage about the destination is conative image. After a visit, the outcome of the visiting experience in comparison with destination images will result in the formation of complex image, and will determine visitors' satisfaction level which will influence visitors' choice of future destinations. All the components discussed above form the travel decision process, in which potential visitors compare the perceived benefits and situational constraints with that destination and will travel to the destination that best serve their needs.

2.6 Destination Image Attributes

A search of literature shows that it is difficult for destination researchers to follow up because there is no fixed set of destination attributes. In other words, when conducting research, destination researchers usually developed their own image attributes for testing.

For instance, Hunt (1975) used people, tourist attractions, climate, and temperature to determine the image of Colorado, Montana, Utah, and Wyoming. Goodrich (1978) assessed the images of a number of destinations by using the image attributes of availability of facilities for water sports, availability of facilities for golfing, tennis, historical and cultural interests, scenic beauty, pleasant people, opportunity for rest and relaxation, shopping facilities, cuisine, availability of entertainment, and availability of suitable accommodations. Yau and Chan (1990) assessed the image of Hong Kong by studying the image attributes of shopping, transportation, entertainment, attractions, hotel and restaurant services, prices, food, and weather, etc. Baloglu and McCleary (1999) compared the images of four Mediterranean countries between visitors and non-visitors. Their used image attributes include beautiful scenery/natural attractions, good climate, interesting cultural attractions, suitable accommodations, appealing local food, good value for money, friendly local residents, etc.

Echtner and Ritchie (1991) summarized the attributes of destination image used in previous studies (Table 6). These attributes were organized into a functional/psychological axis. For selecting attributes and considering them in the table, three rules were followed (as cited in Gallarza et al. 2002): One, in studies using information-reduction methods, the revised attributes are selected before statistical procedure; so there are items but not factors or components. Two, given the variety of attributes and destination types, only the more universal attributes have been considered. Three, when the study listed various similar attributes, these were regrouped into one category. For instance, among those selected attributes, "Residents' receptiveness" was

the most mentioned attribute (20 out of 25 studies), followed by "landscape and /or surroundings" (19 out of 25 studies).

Table 6. Attributes Used by Researchers to Measure Destination Image

FUNCTIONAL (physical, measurable)	Number of Studies Measuring the Attribute **
Scenery/Natural Attractions	1
Costs/Price Levels	3
Climate	9
Tourist Sites/Activities	8
Nightlife and Entertainment	8
Sports Facilities/activities	8
National Parks/Wilderness Activities	8
Local Infrastructure/Transportation	7
Architecture/Buildings	7
Historic Sites/Museums	7
Beaches	6
Shopping Facilities	6
Accommodation Facilities	5
Cities	5
Fairs, Exhibits, Festivals	4
Facilities for Information and Tours	2
Crowdedness	1
Cleanliness	4
Personal Safety	4
Economic development/Affluence	4
Accessibility	3
Degree of Urbanization	2
Extent of commercialization	1
Political Stability	1
Hospitality/Friendliness/Receptiveness	1
Different Customs/Culture	1
Different Cuisine/Food and Drink	1
Restful/Relaxing	7
Atmosphere (Familiar versus Exotic)	7
Opportunity for Adventure	5
Opportunity to Increase Knowledge	4
Family or Adult Oriented	3
Quality of Service	2
Fame/Reputation	1
	1
	1
PSYCHOLOGICAL (abstract)	

** Total number of studies referenced is 14

Source: Echtner and Ritchie (1991: 10)

Echtner and Ritchie (1991) further pointed out that attribute lists might be incomplete by failing to incorporate all of the relevant functional and psychological characteristics of the destination image. To combat this problem, Echtner and Ritchie (1991) suggested that fairly extensive research should be conducted in the primary stage of scale construction. To completely measure destination image, Echtner and Ritchie (1993) suggested that several components must be captured. These include attribute-based images, holistic impressions, and functional, psychological, unique and common characteristics. Images of the tourism product and the destination are composed of the perceptions of individual attributes (such as climate, accommodation facilities, and friendliness of the people) as well as more holistic impressions (mental pictures of imagery) of the place. The characteristics of destination image can be classified as functional (e.g. climate, prices, roads, nightlife, mental picture of physical characteristics) and psychological (e.g. friendly people, general safety, general feeling and impression of the atmosphere of the place). Images of destinations range from those based on "common" functional and psychological traits to those based on more distinctive or "unique" features or feelings.

It is noticed that, unlike other studies, destination image attributes selected to represent each specific destination's image may differ from each other. Therefore, it is a critical task for researchers to develop and decide which attributes to use for analyzing a destination's image.

2.7 Previous Image Studies and Techniques Applied in Image Assessment

Previous destination image studies have focused on either the structure and formation of destination itself (Echtner and Ritchie, 1991, Gartner, 1996), or the relationship between image and traveling behavior such as satisfaction (Chon, 1990), destination choice (Hunt, 1975), positioning strategies (Haahti, 1986), and advertising and promotion of images for destinations (Fesenmaier and Mackay, 1996).

2.7.1 Non-quantitative and Quantitative Methods

Gallarza et al. (2002) presents a comprehensive review of image measurement methods. Generally, there are two methods, non-quantitative and quantitative methods. The non-quantitative methods are divided into two blocks: qualitative techniques and other techniques. Qualitative techniques encompass such as free elicitation and open-ended questions, focus groups, and in-depth interviews and expert discussions; while other techniques cover essentially content analysis. The quantitative methods include bivariate methods and multivariate methods. The bivariate methods include correlation analysis and t-tests; while the multivariate methods consist of information reduction techniques (Multidimensional Scaling and Factor Analysis), grouping techniques, and dependent analysis.

2.7.2 MDS and SDS Methods

According to Reilly (1990), two basic methods have been applied in the previous studies of destination images, i.e. multidimensional scaling (MDS) and semantic differential scaling (SDS). However, both approaches have some disadvantages. For instances, MDS requires considerable sophistication in the data collection and analysis

phases of the research; MDS will not provide reliable results when respondents are unfamiliar with a given destination. As for SDS, the dimensions on which the destinations are rated are generally chosen by the investigator, with the result that they may not be those that are most important to the respondent.

By comparing the disadvantages of the MDS and SDS, Reilly (1990) proposed an alternative technique, the free elicitation of descriptive adjectives. One of this technique's distinct advantages is that data collection is simple and the technique can be used in mail, telephone, and interview. Reilly (1990) also reveals some of its shortcomings. For instance, "unless data is collected on competitive destinations there is no way to construct comparative image profiles.

Fodness (1990) used perceptual mapping techniques and survey data to investigate the implications of consumer perceptions. In order to accomplish this, "actual consumer choice data were analyzed via the techniques of consumer interchange, multidimensional scaling, and cluster analysis. The resulting insights into tourist perceptions of attractions are of interest to marketers concerned with product positioning, location, and promotion," (Fodness, 1990: 3).

2.7.3 Structured and Unstructured Methods

Different types of methods have been applied in assessing tourists' perceptions of destination image. Two basic approaches used in image measurement are structured and unstructured methods (Echtner and Ritchie, 1991). Between these two methods, researchers appear to have a strong preference for structured methodologies. Almost all have used either semantic differential or Likert type scales in the measurement of destination image. Driscoll, Lawson and Niven (1994) pointed out that typically,

destination image studies have employed semantic differential scales, Likert-type scales, or graphic positioning scales; but the formats for presenting these scales have differed. The most common of these formats, referred to here as a scaled questionnaire, requires respondents to separately rate each destination on the basis of a set of benefit generating attributes. Kinnear and Taylor (1987) noted that destination image assessment requires the respondents to express their position on many attitudes using a multi-scale questionnaire. However, according to Gartner (1989), one of the biggest drawbacks with attribute models is that identified attributes (especially those identified by the researcher) may not actually be the most important attributes in the consumer decision process.

2.7.4 Statistical Techniques Applied in Image Destination Analysis

Different kinds of statistical techniques have been applied in destination image analysis. For instance, Fakeye and Crompton (1991) examined the image differences between first-time and repeat visitors of the Lower Rio Grande Valley. They used Factor Analysis with the principal components and a varimax rotation to extract the major image attributes. Guthrie and Gale (1991) used focus group to generate items, then Factor Analysis and Multidimensional Scaling. Ahmed (1991) used Principal Component Analysis, ANOVA, and t-test. Echtner and Ritchie (1993) employed a good combination of both qualitative and quantitative methods. Other techniques include MANOVA and one-way ANOVA (Baloglu and McCleary, 1999, Chon and Olsen, 1991), Importance and Performance Analysis (Chon, Weaver, and Kim, 1991), Multidimensional Scaling Analysis (Baloglu and Brinberg, 1997), Cluster Analysis (Fodness, 1990), Correspondence Analysis (Calantone et al., 1989), and Free Elicitation of Descriptive Adjectives (Reilly, 1990), etc.

It is noted that each method evaluates individuals' perceptions of attributes present in varying degrees within a destination. Some methods compare attributes across destinations, thereby identifying comparative advantages and disadvantages. Besides, the majority of destination image measurement studies have focused on the common, attribute-based components of destination image such as climate, price, scenery, nightlife, etc. Very few have addressed the more holistic components (e.g. general feeling, symbols, and mental pictures).

2.8 Issues Raised from Previous Image studies

Pike (2002) reviewed 142 papers in the field of destination image studies spanning the years from 1973 to 2000. It showed that, relatively, few papers had ever attempted to measure the destination image for any specific travel context. In fact, travel context was explicit in only 23 of the 142 papers. The reviewed papers covered a wide range of interests. These were: the effect of visitation (15), segmentation (12), image differences between different groups (8), affect (6), the effect of distance from the destination (6), intermediaries (6), induced images (5), top of mind awareness/decision sets (5), culture (4), temporal image change (3), negative images (3), the effect of familiarity with the destination (3), less developed destinations (3), length of stay (3), event impact (2), scale validity (2), value (2), image formation (2), and single papers interested in primary image, rural tourism, weather, traveler confidence, impulse decision-making, travel context, barriers to positioning, personal holiday photos, motivation, experience, stereotypes, budget travelers, intent to visit and Destination Marketing Organization policy.

Literature reviews show that though a number of scholars emphasized destination image's impact on visitors' destination selection process and inclined travel behavior, few studies were involved in such topics. More empirical studies are required to explore the insights of this area. Various kinds of image components were stated and explained in previous studies such as organic, induced, complex, functional, symbolic, cognitive, affective, and conative, etc.; however, few efforts were made to explore the interrelationship between these components. It is assumed that a better understanding of destination image components and their respective roles in influencing visitors' travel behavior would streamline and consolidate the destination image theories and should be beneficial to both tourism marketers and researchers. For instance, very few studies ever attempted to examine the utility of the image research involving cognitive, affective, and conative image attributes, and their interrelationships in assessing a destination's overall attractiveness as well as their impact on tourists' travel behaviors.

Based on a wide review of the literature, the author finds some of the following issues, which are critical to practical destination marketing but are deemed for more empirical studies to explore the insights of destination image studies. Hypotheses are also developed resulting from the following discussions to guide this study.

2.8.1 Perceived Image Differences between First-time Visitors and Repeat Visitors, Family Visitors and Non-family Visitors in Oklahoma

Previous researchers observed that the number of visits or visitors' travel pattern (e.g. family travel of non-family travel) at a specific destination may have an impact on the image of that destination. Milman and Pizam (1995) found that familiar repeat tourists had more positive images and a more accurate perception of the destination than

respondents who were just aware, or those who were not aware of the destination. It is assumed that image differences may also exist between family travelers and non-family travelers. According to Brown (1990), childhood travel with family members positively influences an individual's attachment to a destination. Lee (2001) commented that family trips help develop a sense of attachment to a destination. Such an understanding is important for destination marketers especially when they hope to attract a special type of visitors such as repeat visitors and/or family travelers. Based on the above, the first hypothesis for this study was developed as follows:

Ho_1: There are no significant image differences between the first time and repeat visitors, and between family and non-family visitors in Oklahoma;

Ha_1: There are significant image differences between the first time and repeat visitors, and between family and non-family visitors in Oklahoma.

2.8.2 Important Attributes Measuring Total Attractiveness

In actual marketing and promotional campaigns, destination marketers are inclined to distinguish their destination with the most favorably considered image dimensions. However, according to Chen and Hsu (2000), the leading attributes that would help tourism scholars and practitioners measure the total attractiveness of a destination are still unknown. Ratings of destination image attributes might not be an accurate measurement of the overall attractiveness of a destination; factors contributing to destination's overall attractiveness might not be those highly rated image attributes. They argued that, "although previous studies have developed critical attributes tied to tourists' destination images, leading attributes that would help tourism scholars and

practitioners measure the total attractiveness of a destination are still unknown"(p. 411). In order to empirically test this, three hypotheses are developed and designed as follows:

Hypothesis 2:

Ho_2: Destination image dimensions have no significant impact on visitors' likelihood of revisiting Oklahoma;

Ha_2: Destination image dimensions have significant impact on visitors' likelihood of revisiting Oklahoma.

Hypothesis 3:

Ho_3: Destination image dimensions have no significant impact on visitors' likelihood of recommending Oklahoma to others;

Ha_3: Destination image dimensions have significant impact on visitors' likelihood of recommending Oklahoma to others.

Hypothesis 4:

Ho_4: The leading factors assessing the overall destination attractiveness are those highly rated image dimensions;

Ha_4: The leading factors assessing the overall destination attractiveness are not those highly rated image dimensions.

2.8.3 Interrelationship between Cognitive and Affective Constructs

Apart from the argument that it remains undetermined as to which image component (cognitive or affective) plays a major role in influencing travel choices, another interesting issue is that the two image components may exist in some interactive correlations in influencing visitors' behaviors. Stabler (1988) argued that, "there is some

controversy among researchers, whether the choice of a tourist trip is person-determined or destination-determined. This uncertainty reflects lack of empirical evidence on the role information plays in the creation of image. Is it via personal experiences or that of others or via the supply side communication network? Undoubtedly, the image built up is influenced by all three sources of information"(p. 134-135). It is interesting to notice that correlations between cognitive attributes and affective attributes are analogous to motivation's "pull" and "push" factors. Uysal and Jurowski (1994) examined the nature and extent of the relationship between push and pull factors in influencing tourists' pleasure travel. Their study found that a reciprocal relationship exists between push and pull factors; that is, motivational push factors change with modifications in pull components. Likewise, it is assumed that cognitive image attributes, which are mainly a reflection of destination attributes, have some reciprocal relationship with affective image attributes, which represent visitors' holistic and mental feelings about the destination. Thus, the fifth hypothesis is drawn as follows:

Ho_5: There are no significant canonical correlations between cognitive image attributes and affective image attributes;

Ha_5: There are significant canonical correlations between cognitive image attributes and affective image attributes

2.8.4 Predictability of the Cognitive and Affective Images on Visitors' Travel Behavior

In tourism studies, tourist behavior is a fundamental but critical subject affecting the development of marketing strategies and product delivery. Hunt (1975) noted, "Customers often buy products and services on the basis of their images as well as their inherent characteristics (p. 2)." Investigating tourists' images of their travel destinations

will be a necessary step in better understanding behavior-related issues (Chen and Hsu, 2000). Fishbein (1967) posited that behavioral intent is a consequence of attitude. His "theory of reasoned action" consumer behavior model is predicated on the assumption that consumers are rational and that purchase decisions are the outcome of logical and predictable steps. The model suggests that evaluation of alternatives is influenced by consumer attitudes and beliefs, and that the ultimate purchase decision is a direct behavioral response to attitudes.

While many previous studies assumed that tourists' images of a destination affect their destination choice behaviors, there are very few empirical studies on how the destination images are involved in visitors' travel behaviors. One study was conducted by Chen and Hsu (2000), which examined the influence of tourists' perceptions of destination attractiveness on their travel choice behaviors. The purpose of their study was to examine what kind of image attributes affected tourists' trip planning timeframe, budgeted travel costs, and length of trip. Chen and Hsu suggested that investigating tourists' images of travel destinations should be a necessary step in better understanding behavior-related issues.

To empirically test this, the sixth hypothesis for this study is stated as follows:

Ho_6: Destination images have no significant influence in predicting tourists' inclined travel behavior (i.e. number of visits, visiting purposes, and intention of staying overnight);

Ha_6: Destination images have significant influence in predicting tourists' inclined travel behavior (i.e. number of visits, visiting purposes, and intention of staying overnight).

2.8.5 Relationship between Destination Images and Visitors' Demographic and Travel Characteristics

Stabler (1988) suggested that individuals have different images of tourism. This makes it possible to segment markets by appealing to specific nationalities or groups of tourists of differing socio-economic status, ages or interests. It is also possible to differentiate the image according to seasons and activities and facilities offered. For instance, research in travel and tourism has identified age as an important factor that affects tourists' choices of destinations and activities (Mansfeld, 1992). Chen and Kerstetter (1999) observed that tourists from various countries might place different values on destination attributes. Visitors' images toward destinations vary upon their country of origin; destination marketers should employ different promotional strategies in positioning their destinations. It is believed that destination images together with demographic information and travel characteristics would provide more practical implications and make promotions and advertising campaigns more effective.

In order to see whether some significant differences of images exist between various kinds of visitors, the seventh hypothesis is then developed.

Ho_7: There is no significant difference in the perceived destination image dimensions among visitors with different demographics and travel characteristics (e.g. gender, age, country of residence, and purposes of visit);

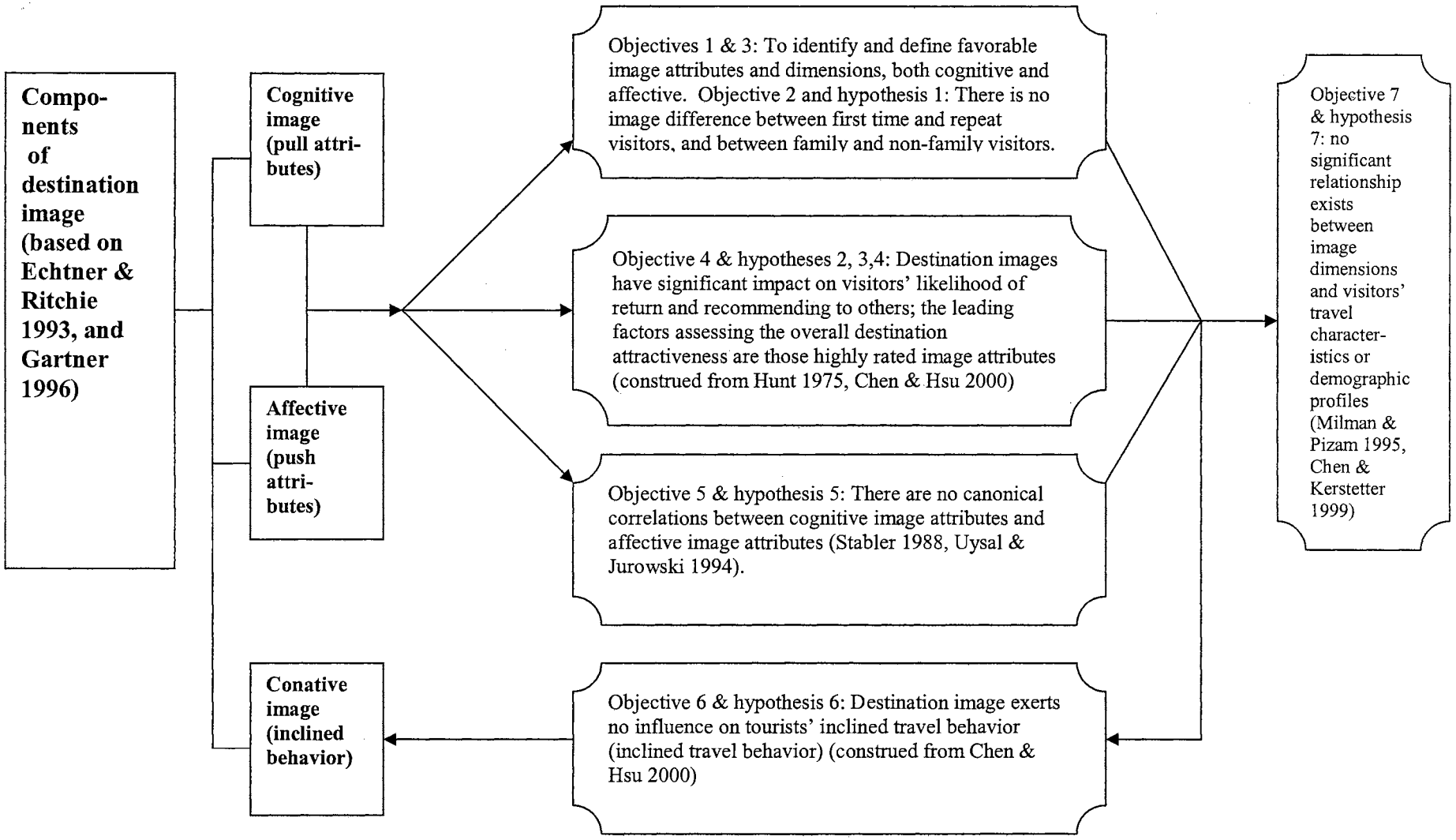
Ha_7: There is significant difference in the perceived destination image dimensions among visitors with different demographics and travel characteristics (e.g. gender, age, country of residence, and purposes of visit).

To conclude, all the hypotheses discussed in this chapter and objectives listed in Chapter One, a conceptual framework is drawn (see Figure 5) to illustrate all the components and hypotheses/objectives, which are examined and discussed in the following chapters.

2.9 SUMMARY

This chapter reviews previous literature about the definitions, characteristics, components and formation of destination image. Specific review and discussions are made about the relationship and role of two important components, cognitive and affective images. Image attributes and techniques applied in various destination image studies are also reviewed. Some issues considered to be critical in image studies are raised and hypotheses based on these issues are proposed.

Figure 5. Conceptual Framework of Destination Image Study



CHAPTER THREE - METHODOLOGY

3.1 RESEARCH DESIGN

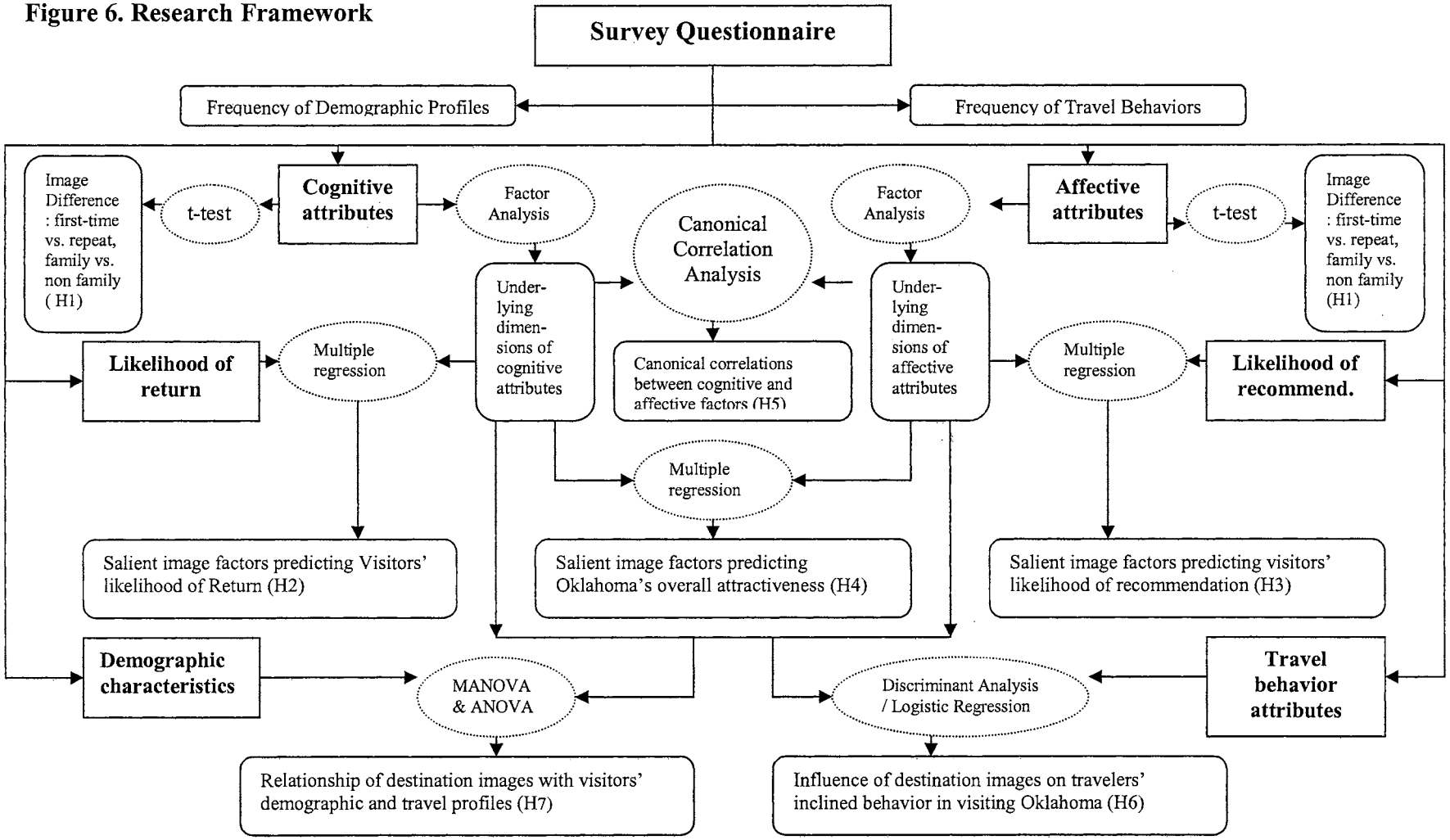
This is a descriptive cross-sectional sample survey research, which aims at describing the images of Oklahoma based on the perceptions of international visitors. The objective of the survey is to collect information data from international visitors with respect to their perceptions of the image of Oklahoma, from the image's three perspectives – cognitive, affective, and conative. A self-structured questionnaire is developed. The target population of this study is international visitors who visited any of Oklahoma's twelve Welcome Centers during the period of August 1 to November 1, 2002. A convenience sample approach was used to select the sample. The statistical techniques used for subsequent data analysis will be discussed.

3.2 RESEARCH FRAMEWORK

Figure 6 displays the research framework used in this study. A self-administered questionnaire was used to measure the destination image's cognitive attributes, affective attributes, and conative attributes. The questionnaire was also designed to examine respondents' demographic profiles, travel behaviors, and Oklahoma's overall image.

Figure 6 indicates that, in this study, the Independent Samples t-test was employed to test visitors' perceived differences of image attributes between first-time visitors and repeat visitors, and between family visitors and non-family visitors. Factor analysis was employed to identify the underlying dimensions of the respondents' perception of the destination's cognitive image and affective image, respectively. Both the cognitive dimensions and affective dimensions were used for subsequent analyses:

Figure 6. Research Framework



Note: Survey questionnaire components are represented by rectangles, applied statistical techniques are represented by dotted ovals, and targeted objectives are represented by round rectangles

Multiple Regression analyses, Canonical Correlation, Discriminant and Logistic Regression, and MANOVA and ANOVA. Among them, Multiple Regression analyses were performed to explore the important cognitive and affective dimensions in predicting visitors' likelihood of return, likelihood of recommendation, and Oklahoma's overall attractiveness. Canonical Correlation was conducted to examine the relationship between the cognitive dimensions and affective dimensions. Multiple Discriminant and Logistic Regression were employed to determine the potential impacts of destination images on respondents' inclined travel behavior. Finally, MANOVA and ANOVA were performed to examine the relationship between image dimensions and visitors' demographics and travel behaviors.

3.3 The Survey Instrument

In the field of destination image studies, the self-administered structured survey questionnaire has been the most popular instrument used to assess destination image (Baloglu and Brinberg, 1997, Chon and Olsen, 1991, Chon, Weaver, and Kim, 1991, Hunt, 1975, and Goodrich, 1977).

This study used a self-administered questionnaire, which consisted of five sections. The relevant literatures and survey instruments developed by past researchers provided the basis for developing the questionnaire for this study.

The first section of the questionnaire is about respondents' travel behaviors. The travel behavior items were based on and derived from the studies of Qu and Li (1997) and Qu et al. (2000) on the characteristics and satisfaction of international visitors to Hong Kong. The first section is designed to examine tourists' characteristics and inclined

travel behavior such as tourists' visiting purposes, sources of information, intended travel pattern, length of stay, and travel expenditure when visiting Oklahoma.

The second section of the questionnaire is a collection of Oklahoma's cognitive image items (i.e. destination-based items). To create a list of cognitive attributes, previous destination image studies were carefully reviewed, and those frequently used attributes identified by Echtner and Ritchie (1991) were referenced. Related publications and promotional brochures on Oklahoma's tourism attractions were searched for Oklahoma's distinct features in attracting visitors. Further, a small group interview was conducted among two dozen OSU senior students who were enrolled in a hospitality and tourism marketing course. In the interview, students were asked to solicit Oklahoma's favorable cognitive and affective image items while keeping in mind that these attributes are important in attracting international visitors. Also, the director in charge of OTRD's Travel and Tourism Division was interviewed to list Oklahoma's attractions to international visitors from the OTRD's perspective.

As a result of the series of searching and screening process, a total of 27 cognitive items were selected and included in the questionnaire (see Appendix 2). Generally, these items fall into the categories of natural attractions, cultural attractions, entertainment and/or recreational activities, local people's attitudes, accommodations, and traveling conditions. Respondents were asked to express their agreement on the attractiveness of cognitive image attributes on a five-point Likert scale varying from "strongly disagree - (1)" to "strongly agree - (5)". In terms of the scale and measures of psychological constructs, Brown (1997) cautioned that two fundamental problems must be considered: "First, there is the problem of absolute meaning when there is no frame of reference

beyond the scale itself. ... This second problem, which might be termed the comparative meaning problem, arises because of the likely inequivalence of scale units on the scales being compared," (pp. 67-68).

The third section concerns Oklahoma's affective image attributes. The purpose of this section is to examine how international visitors feel mentally about Oklahoma and what they expect to enjoy from visiting Oklahoma. As Gartner (1993) stated, affective attributes are closely related with tourist motives. Besides the affective attributes solicited by the OSU students through the interview, attributes discussed by Crompton (1979b) and Dann (1977) were also referenced. As a result, 22 affective attributes were identified and included in the questionnaire (see the Appendix 2). Generally, these items fall into the categories of relaxation, novelty, sociability/personal fulfillment, prestige, and benefits, etc. Respondents were asked to indicate their agreement on the affective image attributes on a five-point Likert scale varying from "strongly disagree - (1)" to "strongly agree - (5)".

The fourth section reflects Oklahoma's overall attractiveness with two indicators. The two indicators are "What do you think of the likelihood of visiting Oklahoma in your future trips?" and "Do you think that Oklahoma is a recommendable destination to your relatives and friends for their future trips?" Respondents were asked to rate their response on a five-point Likert scale.

The final section of the questionnaire refers to the demographic characteristics of respondents including gender, age, place of residence, income, etc.

In order to ensure that the respondents, whose native language was not English, could comprehend the questions and statements in the questionnaire, the questionnaire was translated from English into French, German, and Spanish.

3.4 Validity and Reliability

Content validity refers to the extent to which an instrument covers the range of meanings included in the concept (Babbie, 1992). In order to ensure the content validity of the questionnaire, in-depth reviews of literature in the destination image and image's components were conducted to determine the attributes for the instrument. A variety of items with slightly different interpretations that broadly represent the range of the above topics was generated. The attributes with similar meanings were grouped. The attributes that were most cited in the literature were selected to narrow the list of both cognitive and affective image attributes (Churchill, 1996). Then the instrument was verified by a panel of experts to ensure the content and face validity of the questionnaire. These experts were faculty in the field of tourism and marketing research, and professional researchers or managers working for the Oklahoma Tourism & Recreation Department (OTRD). With respect to the construct validity, through the careful plan and procedure used in constructing the instrument, it is assumed that the domain of the construct has been adequately sampled and that there is internal consistency among the items of the domain.

A pilot test was conducted with a convenient sampling of twenty international visitors who visited the Thackerviller Welcome Center, which is Oklahoma's largest Welcome Center. The pilot test was used to examine the internal consistency and comprehension of the questionnaire items. The result of the test helped provide valid feedback on the questionnaire design, wording, and measuring scales. A reliability

analysis (Cronbach's alpha) was performed to test the reliability and internal consistency of each of the attributes measured. The Cronbach alpha is 0.79 for the cognitive items, and 0.82 for the affective items, which were high according to Nunnally and Bernstein (1994).

3.5 Sampling Plan

The target population of this study was the international visitors aged above age 18 who once visited one of Oklahoma's twelve Welcome Centers during the period of August 1 to November 30, 2002.

The determination of sample size is largely dependent on the statistical estimating precision required by researchers. The number of variables also plays an important role in determining the sample size. Generally, thirty subjects are generally considered to be a minimally acceptable sample size for a correlation analysis. Hair et al. (1998) suggested that a sample size between 200 and 400 is usually recommended and accepted as a critical sample size.

According to Burns and Bush (1995), in order to calculate the proper sample size for a survey, three factors should be considered: (1) the amount of variability believed to be in the population, (2) the desired accuracy, and (3) the level of confidence required in the estimates of the population values. The formula for calculating the proper sample size is: $N = z^2(pq)/e^2$,

Where,

n=the sample size

Z=standard error associated with chosen level of confidence (95%)

P=estimated variability in the population 50/50

Q=(100-P)

E=acceptable error ±5%

Based on this formula, for instance, in order to obtaining ±5% accuracy at 95% confidence interval, the sample size will be: $N = z^2(pq)/e^2 = 1.96^2(50\times50)/5^2 = 384$. With an estimate of 60% response rate and 80% usable questionnaires, 800 questionnaires were distributed.

In order to make a more representative sampling, a systematic stratified sampling was originally planned for collecting samples. However, according the OTRD managers, after the 9/11 incident, the number of international visitors visiting Oklahoma's Welcome Centers have greatly decreased. Given the limited number of international visitors visiting the Welcome Centers and due to the unknown nature of the total number of international visitors to Oklahoma, a convenience sampling approach was used.

3.6 SURVEY

Before the survey was formally started, an orientation meeting was held at the OTRD attended by the OTRD tourism-marketing managers in charge of the welcome centers, tourism development, and research, respectively. In addition, a guideline letter on how to distribute and collect questionnaires was attached to each questionnaire (see Appendix 1). The targeted population is the total of international visitors who stopped at the twelve Welcome Centers during the survey period from August to November, 2002. It was originally planned to use a stratified systematic sampling; unfortunately, the number of international visitors showing up at the Welcome Centers dropped

considerably due to the impact of 9/11. A convenience sampling was used to anticipate a considerate sample size. On-site surveys were conducted at the twelve Welcome Centers. Surveyors identified international visitors at the Welcome Centers' registration counters and then asked them if they were willing to participate in the survey. Questionnaires were hand delivered to and collected from volunteering participants on the site. The survey started at the beginning of August 2002 and concluded at the end of November. As a result, 800 questionnaires were distributed to international visitors and 238 completed questionnaires were returned, representing a response rate of 29.75%. Among them, 202 questionnaires (25.25%) were found to be useful for data analyses.

3.7 Data Analyses

A formal coding sheet is designed and used to code all the questions in a systematic way. In order to achieve the stated objectives and to test the hypotheses, various kinds of statistical techniques were employed. These techniques include frequencies and mean ratings, Independent Samples t-test, Factor Analysis, Multiple Regression, Canonical Correlation Analysis, Logistic Regression and Discriminant Analysis, and MANOVA and ANOVA. Data were entered into the Statistical Package for Social Sciences Windows Version 11 (SPSS) program and analyzed accordingly.

Specific statistical techniques employed and the corresponding objectives they are expected to achieve are listed in Table 7.

Table 7. Statistical Techniques Employed in This Study

Statistical techniques employed	**Research purposes**	**Objectives/ Hypotheses**
Frequency Analysis	Examine the distribution of responses	
Mean Ratings	Examine and analyze the mean scores of the image attributes	Objective 1
Independent Samples t-test	Test perceived differences of image attributes between first-time and repeat visitors, and family and non-family visitors	Objective 2 Hypothesis 1
Factor Analysis	Define underlying structures of both cognitive attributes and affective attributes	Objective 3
Multiple Regression	Identify important cognitive and affective factors in contributing to visitors' likelihood of return, likelihood of recommending to others, and overall attractiveness	Objectives 4 Hypothesis 2 Hypothesis 3 Hypothesis 4
Canonical Correlation	Explore relationship between cognitive constructs and affective constructs	Objective 5 Hypothesis 5
Multiple Discriminant and Logistic Regression	Detect influence of destination images on visitors' inclined travel behavior	Objective 6 Hypothesis 6
Independent t-test, MANOVA & ANOVA	Test image differences perceived by visitors with demographics and travel characteristics	Objective 7 Hypothesis 7

3.7.1 Descriptive Statistics

Descriptive statistics is used to consolidate the data, which is performed to determine mean and standard deviation of the attributes of cognitive image, affective

image, and destinations' total attractiveness. A frequency analysis is conducted to examine the distribution of respondents' demographic profiles, and their inclined travel behavior.

3.7.2 Independent Samples T-test

The purpose of running Independent Samples t-test is to examine and compare both cognitive and affective image attributes by visitors' travel characteristics.

The Independent Samples t-test examines whether the mean of a single variable for subjects in one group differs from that in another group (SPSS, 1999). In this study, the Independent Samples t-test was used to examine the mean score differences of the perceived image attributes of Oklahoma between first-time visitors and repeat visitors, and between family travelers and non-family travelers. The Levene's Test was used to assess whether the variance of single metric variable are equal between the pairs of groups.

3.7.3 Factor Analysis

Factor analysis is an interdependence multivariate analysis method that takes a large number of variables and attempts to find a small number of factors in common which account for their interrelation. The primary assumption of factor analysis is that there are underlying patterns of a few relationships among a large set of variables. Its primary purpose is to gather this large set of variables into more or less homogeneous composites of all the important variables in the larger set, so that each composite variable becomes the surrogate for a number of other variables. The operating principle is that a

number of variables mean the same thing to a respondent along one underlying dimension (Lewis 1984).

There are two methods to extract factors (Hair et al., 1998) - Common Factor Analysis (CFA) versus Principal Component Analysis (PCA). CFA is used to identify underlying factors that reflect what variables share in common and consider communalities, i.e. only the shared or common variance. PCA is used when the objective is to summarize most of the variance in a minimum number of factors for prediction purposes, and to consider the total variance (including common, specific and error), but the first few factors do not include many unique and error variances to distort the overall factor structure. By comparing these two methods, PCA is chosen for its features on summarizing most of the variance in a minimum number of factors for prediction purposes.

There are several assumptions in factor analysis (Hair et al., 1998):

- Kaiser-Meyer-Olkin measure of sampling adequacy (MSA): to test the appropriateness of factor analysis. If the MSA is below .50, we can go to the anti-image matrices to take out the lowest variables and rerun; if correlation is above .50, it is acceptable;
- Bartlett's sphericity test: to test for the presence of correlations among the variables, which should be significant. Comparatively, MSA is more valued than sphericity test because Bartlett's sphericity test is very sensitive to sample size;
- the data matrix has sufficient correlations to justify the application of factor analysis.

In this study, factor analysis is implemented to discover the underlying dimensions of visitors' perceived image attributes, cognitive and affective attributes, respectively. The principal-component method and varimax rotation are used. The appropriateness of factor analysis will be assessed by correlation, measures of sampling adequacy (MSA), partial correlation among variables, and Cronbach's reliability alpha. Rotation of factors could be either orthogonal, if factors are uncorrelated, or oblique, if factors are correlated. The criteria for the number of factors to be extracted are based on eigenvalue, percentage of variance, significance of factor loading, and assessment of the structure. Factors with eigenvalues greater than 1 are to be considered significant. The solution that accounted for more than 50% of the total variance is considered to be satisfactory. A variable is considered to be of practical significance and included in a factor when its factor loading is equal to or greater than 0.4 (Hair et al., 1998).

According to Hair et al. (1998), summated scales are preferred to factor scores for subsequent analyses. Summated scales represent concepts in a single measure while reducing measurement error. The major difference of the summated scales and factor scores is that the factor score is computed based on the factor loadings of all variables on the factor, whereas the summated scale is calculated by combining only selected variables.

3.7.4 Multiple Regression

Multiple regression analysis is employed to determine the relative impact of image dimensions upon the destination's overall attractiveness, visitors' likelihood of return, and visitors' likelihood of recommending to others, respectively.

Regression analysis is a statistical technique by which we can analyze the relationship between a dependent variable and a set of independent variables. Unlike correlation analysis, regression analysis also describes the nature of the relationship. Regression analysis provides measurements of the accuracy of the predictions, based on the explained variance, and measures the importance of the predictor variables (independent variables) in explaining the variance in the criterion variable (dependent variable).

Assumptions in multiple regression analysis include:

- Linear relationship: the degree to which the change in the dependent variable is associated with the independent variables, which can be detected by residual plots, and detected by partial regression plots for each predictor;
- Constant variance of the error terms (homoscedasticity): this assumption can be detected by residual plots, and by Levene's test;
- Independence of the error terms (uncorrelated): this can be tested by Durbin-Watson statistic. A range from 1.75 – 2.75 is considered to be acceptable.
- Normality of the error term distribution: this can be detected by normality test (Kolmogorov – Smirnov test).

According to Hair et al. (1998), to assess overall model fit, multiple R is the correlation coefficient for the simple regression of X and the dependent variable; R square is the correlation coefficient squared, also referred to as the coefficient of determination. This value indicates the percentage of total variation of Y explained by X; the standard error of the estimate is another measure of the accuracy of predictions. It is the square root of the sum of the squared errors divided by the degrees of freedom. It

represents an estimate of the standard deviation of the actual dependent values around the regression line.

According to Hair et al. (1998), for each variable in the equation, several measures need to be defined: the regression coefficient, the standard error of the coefficient, and the partial *t* value of variables in the equation. The Beta value is the value calculated from standardized data. The Beta value allows us to compare the effect of one independent variable on Y to the effect on Y of other independent variables at each stage. The standard error of the coefficient is the standard error of the estimate of b value. It is an estimate of how much the regression coefficient will vary between samples of the same size taken from the same population. The partial *t* value of variables in the equation, measures the significance of the partial correlation of the variable reflected in the regression coefficient.

As for variables not in the equation, two measures are available to available to assess their potential contribution: partial correlation and *t* values (Hair et al., 1998). The partial correlation is a measure of the variation in Y not accounted for by the variables in the equation that can be accounted for by each of these additional variables.

In this study, three items, i.e. visitors' likelihood of return, visitors' likelihood of recommending to others, and the overall attractiveness, which was a converged item from the previous two items were used as dependent variables, separately in the regression models. The regression model is proposed as follows:

$$\hat{Y}_{1\text{-}3} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_n X_n + \epsilon$$

where,

$\hat{Y}_{1\text{-}3}$	dependent viriables (Y_1: visitors' likelihood of return, Y_2: visitors' likelihood of recommending to others, and Y_3: Oklahoama's overall attractiveness converged by these previous two items)
β_0	constant (coefficient of intercept)
$\beta_1 \ldots \beta_n$	regression coefficients of the latent factors
$X_1 \ldots X_n$	latent factors
ϵ	standard error

Three values are used to assess variable collinearity: the tolerance value and its inverse - the variance inflation factor (VIF), and condition index. These measures indicate the degree to which each independent variable is explained by the other independent variables. Tolerance is the amount of variability of the selected independent variable not explained by the other independent variables. Thus very small tolerance values (and large VIF values) denote high collinearity. A common cutoff threshold is a tolerance value of .10, which corresponds to VIF values above 10, and a condition index greater than 30 (Hair et al. 1998).

To employ the multiple regression analysis in this study, cognitive factors and affective factors are analyzed separately. The method of entry used for the model was the backward elimination. Oklahoma's overall attractiveness surrogated by two indicators (likely to return, and recommendable to others), as well as the two indicator items – likelihood of return and likelihood of recommending to others), were used as the dependent variable, respectively. The summated mean scores of the underlying dimensions are used as the independent variable measures. The significant factors that

remained in the equation are shown in order of importance based on the Beta coefficients. The higher the coefficient, the more the factor explained the contribution of the image dimensions to the overall attractiveness items.

3.7.5 Canonical Correlation Analysis

Canonical correlation analysis was employed to examine the relationship between the cognitive image dimensions and affective image dimensions.

Canonical correlation analysis can be viewed as a logical extension of multiple regression analysis (Hair et al., 1998). With canonical analysis the objective is to correlate simultaneously several metric dependent variables and several metric independent variables. The underlying principle is to develop a linear combination of each set of variables (both independent and dependent) to maximize the correlation between the two sets. The General form of canonical analysis is as follows:

$$Y_1 + Y_2 + Y_3 + \ldots + Yn = X_1 + X_2 + X_3 + \ldots + Xn$$

(metric, nonmetric) (metric, nonmetric)

where,

$Y_1 \ldots Yn$ affective image dimensions

$X_1 \ldots Xn$ cognitive image dimensions

There are some assumptions for canonical correlations, i.e. linearity, normality, homescedasticity, and multicollinearity (Hair et al. 1998). The assumption of linearity affects two aspects of canonical correlation results. First, the correlation coefficient between any two variables is based on a linear relationship. If the relationship is nonlinear, then one or both variables should be transformed, if possible. Second, the canonical correlation is the linear relationship between the variates. Normality is

desirable because it standardizes a distribution to allow for a higher correlation among the variables. Homoscedasticity, to the extent that it decreases the correlation between variables, should also be reminded. Finally, multicollinearity among either variable set will confound the ability of the technique to isolate the impact of any single variable, making interpretation less reliable.

According to Hair et al. (1998), the first step of canonical correlation analysis is to derive one or more canonical functions. Each function consists of a pair of variates, one representing the independent variables and the other representing the dependent variables. The result is that the first pair of canonical variates is derived so as to have the highest intercorrelation possible between the two sets of variables. The second pair of canonical variates is then derived so that it exhibits the maximum relationship between the two sets of variables not accounted for by the first pair of variates. Successive pairs of canonical variates are based on residual variance. The strength of the relationship between the pairs of variates is reflected by the canonical correlation. When squared, the canonical correlation represents the amount of variance, which is also called canonical roots or eigenvalues.

To decide which canonical functions are to be interpreted, three criteria are used (Hair et al., 1998): 1) level of statistical significance of the function, 2) magnitude of the canonical correlation, and 3) redundancy measure for the percentage of variance accounted for from the two sets. The level of significance of a canonical correlation considered to be acceptable for interpretation is the 0.05 level. Many of the measures for assessing the significance of discriminant functions, including Wilks' lambda, Hotelling's trace, Pillai's trace, and Roy's gcr. No generally accepted guidelines have

been established regarding suitable sizes for canonical correlations. The decision is usually based on the contribution of the findings to better understanding of the research problem being studied.

According to Hair et al. (1998), the calculation of the redundancy index is a three-step process. The first step involves calculating the amount of shared variance from the set of dependent variables included in the dependent canonical variate. The second step involves calculating the amount of variance in the dependent canonical variate. The final step is to calculate the redundancy index, found by multiplying these two components. To interpret the results, three methods have been proposed: canonical weights, canonical loadings, and canonical cross-loadings.

3.7.6 Discriminant Analysis and Logistic Regression

The primary goal of using discriminant analysis or logistic regression is to develop a valid and reliable model to predict and explain the dependent variable, to estimate the relationship between a single nonmetric dependent variable and a set of metric independent variables. In this study, multiple discriminant and logistic regression are used, respectively, to examine whether cognitive and affective variables have any significant impacts on the conative variables (visitors' inclined behaviors) such as times of visit, visiting purposes, and intention of staying overnight in Oklahoma.

For both discriminant analysis and logistic regression (logit), the primary purpose is to analyze data with one nominal (two categories for logistic regression, two or more categories for discriminant analysis) dependent variable, and multiple independent (metric or non-metric) variables (Hair et al., 1998). One objective is to evaluate group differences on a multivariate profile and to provide an objective assessment of the

differences between groups on a set of independent variables. Though both discriminant analysis and logistic regression can handle binary dependent variable analysis, logit's results are usually more reliable, explainable, and predictable than the result run by discriminant analysis. Besides, logit is robust to violation of the assumption of equality of the variance/covariance matrices. Thus, logistic regression is used for binary dependent variable; while multiple discriminant analysis is employed for three or more groups.

The following are the assumptions to run either discriminant analysis or logistic regression (Hair et al., 1998): normality of independent variables, linearity of relationships, lack of multicollinearity among independent variables, equal dispersion matrices. The key assumptions for deriving the discriminant function are multivariate normality of the independent variables and unknown (but equal) dispersion and covariance structures for the groups as defined by the dependent variable.

Multicollenearity denotes that two or more independent variables are highly correlated, so that one variable can be highly explained or predicted by the other variables and thus it adds little to the explanatory power of the entire set. As with any of the multivariate techniques employing a variate, an implicit assumption is that all relationships are linear. Finally, outliers can have a substantial impact on the classification accuracy of any discriminant analysis results.

In multiple discriminant analysis, it starts by finding a linear combination of the independent variables (X_1 to X_p) that maximizes the between group variance and minimizes within group variance on the linear function scores. It then finds the next set of linear combinations subject to the constraint that the new set is uncorrelated with the first

on. This goes on until no further set can be found. The multiple discriminant analysis model is proposed as follows:

$$Z = a + W_1X_1 + W_2X_2 + \ldots W_pX_p$$

where,

Z	Discriminant Z score;
a	intercept
$W_1 \ldots W_p$	coefficients of independent variables;
$X_1 \ldots X_p$	independent variables (image dimensions)

To test the significance of the function, overall model fit can be assessed in several ways. First, discriminant Z scores can be calculated for each object. Comparison of the group means on the Z scores provides one measure of the discriminatin between groups . Predictive accuracy is measured as the number of observations classified into thecorrect groups. Finally, casewise diagnostics can identify the calssification accuracy of each case and its relative impact on the overall model estimation.

According to Hair et al. (1998), the traditional approach to interpret discriminant functions examines the sign and magnitude of the standardized discriminant weight. The interpretation of discriminant weights is analogous to the interpretation of Beta weight in regression analysis. Discriminant loadings have been used as a basis for interpreation. Both the discriminant coefficients and discriminant loadings are used to interpret the function. Wilk's Lambda is the most commonly used multivariate test statistics. Large F values indicate greater discrimintory power. Canonical correaltion will be used to find the discriminatory power of each function as a whole.

In logistic regression, the probability of an event occurring can be directly estimated (SPSS, 1999). The logistic regression model can be written as:

Probability (event) = $1/(1 + e^{-Z})$.

Where:

e	the base of the natural logarithm
Z	$B_0 + B_1X_1 + B_2X_2 + \ldots + B_nX_n$
$B_{0,\ldots}B_n$	logistic coefficients estimated from the data
$X_1 \ldots Xn$	independent variables

If the estimated probability of the event is less than 0.5, the event will not occur but if the estimated probability is greater than 0.5, the event will occur (SPSS, 1999). The "odds" are used as the dependent variable in logistic regression (Hair et al., 1998). It refers to the ratio of the probability that an event will occur to the probability that the event will not. The logistic coefficient can be interpreted as the change in the log of the odds associated with a one-unit change in the independent variable. In this study, for instance, one dependent variable is the odds that international visitors "would travel with other family members" versus "would not travel with other family members" when visiting Oklahoma. The summated scale scores of the destination's cognitive dimensions and affective dimensions, which were derived from the factor analyses, respectively, are used as independent variables in the logistic regression models.

When running logistic regression, backward method will be used. The Outlier diagnostics will show if there are cases with standardized residual greater than 3, which will be excluded from the final analysis. Omnibus tests of model coefficients will be judged by Chi-square at a significance level of 0.05 to see whether the overall model is

significant. Nagelkerke R square is used to see how much variance is explained by the model.

3.7.7 MANOVA and ANOVA

The purpose of running MANOVA and ANOVA is to detect whether tourists with different various demographic and travel characteristics have different perceptions towards the destination's cognitive and affective image dimensions. The demographic profiles and travel characteristics under discussions include gender, age, country of residence, and visiting purposes.

Multivariate analysis of variance (MANOVA) is a statistical technique that can be used to simultaneously explore the relationship between several categorical independent variables and two or more metric dependent variables. MANOVA was used in looking at relationships among dependent variables simultaneously instead of one at a time because we want to control for correlations among dependent variables and avoid type I error. It is an extension of univariate analysis of variance (ANOVA). The most commonly used values in MANOVA are Wilk's Lambda, F value and p-value (Hair, et al., 1998).

MANOVA assumptions include (Hair, et al., 1998): interval scale for dependent variables, categorical for independent variables, constant variance-covariance matrices across groups, multivariate normality of dependent variable within each group, independent observations, and correlated dependent variables. According to Hair et al. (1998), the most basic, yet most serious, violation of an assumption occurs when there is a lack of independence among observations. MANOVA programs provide the test for equality of covariance matrices – typically the Box test – and provide significance levels for the test statistic. In terms of normality of the dependent measures, the assumption is

that all the variables are multivariate normal in the strictest sense. In addition to the linearity requirement, the dependent variables should not have high multicollinearity. Besides, MANOVA is especially sensitive to outliers and their impact on the type I error. To estimate the MANOVA model and assess overall fit, Wilks' lambda is most commonly used.

Following a significant overall multivariate result, univariate analysis of variance (ANOVA) will be conducted to determine which of the individual variables are contributing to the significant multivariate differences. ANOVA was used to examine the mean differences in both the cognitive image dimensions and affective image dimensions across different groups of subjects with different demographic profiles or travel behaviors. After the null hypothesis is rejected, a post hoc test was performed to determine where the differences lie. Bonferroni test was used to control for experiment-wide Type I error of multiple comparisons by adjusting the selected alpha level down (Hair et al. 1998).

3.8 SUMMARY

This chapter presents the research design and framework, survey instrument, sampling plan, survey procedure, and statistical techniques applied in data analyses. A self-administered questionnaire was used to examine Oklahoma's image components – cognitive, affective, and conative. The target population of this study was the international visitors who visited one of Oklahoma's twelve Welcome Centers from early August to the end of November 2002. A convenience sampling approach was used to

select the samples of this study. Descriptive and multivariate statistical techniques were employed in the data analyses.

CHAPTER FOUR – RESULTS OF DATA ANALYSES

This chapter presents the results to the data analyses and hypotheses testing.

4.1 THE RESPONDENTS' PROFILE

Two types of information on respondents are collected, i.e. respondents' demographic profiles and their travel characteristics. Such information is presented in Tables 8 and 9, respectively.

4.1.1 Respondents' Demographic Profile

Respondents' demographic profiles include gender, age, and countries of residence (see Table 8).

The majority of the respondents are males (61.5%), with females representing 37.1% of the sample. In terms of age, respondents are almost evenly distributed among the age groups of 21-30, 31-40, 41-50, and 51-60. There are minor groups over 60 or below 20. Respondents are widely distributed in terms of countries of residence, with 202 respondents from over 40 countries. The country with the highest proportion is Germany (29.1%), followed by Canada (15.9%), the United Kingdom (9.5%), and Mexico (8.5%). Only respondents from Germany and Mexico have reached or exceeded the number of 30 (55 from Germany, 30 from Canada).

In terms of current occupation, the largest group is professional and technical people (27.2%), followed by retired or not in workforce (15.3%). The third and fourth groups are teachers/students (11.4%) and managers/executives (8.9%). The information about visitors' total combined family income revealed that the most frequent family

income was in the range of $20,000-39,9999 (22.3%), followed by $40,000-59,999 (17.8%) and $60,000-79,9999 (15.8%).

Table 8. Respondents' Demographic Profiles (n=202)

Gender	Freq.	Valid percent
Male	120	61.5
Female	75	38.5
Age Group	Freq.	Valid percent
20 or below	9	4.5
21 – 30	39	19.7
31 – 40	40	20.2
41 – 50	44	22.2
51 – 60	39	19.7
61 or above	27	13.6
Current Occupation	Freq.	Valid Percent
Manager/executive	18	10.2
Clerical/sales	12	6.8
Professional/technical	55	31.1
Government/military	14	7.9
Teacher/student	23	13.0
Craftsman/mechanic/factory worker	11	6.2
Housewife	13	7.3
Retired/not in workforce	31	17.5

Countries	Freq.	Valid percent
Germany	55	29.1
Canada	30	15.9
U. K.	18	9.5
Mexico	16	8.5
France	8	4.2
Netherlands	8	4.2
Australia	7	3.7
Others	47	24.9
Total Combined Family Income	Freq.	Valid Percent
under $ 20,000	28	17.2
20,000-39,999	45	27.6
40,000-59,999	36	22.1
60,000-79,999	32	19.6
80,000 and above	22	13.5

4.1.2 Respondents' Travel Characteristics

Items have been chosen to examine respondents' travel characteristics and inclined behaviors, i.e. purpose of visit, travel pattern, source of information, individual or group tour, times of visit, day or overnight visit, number of nights, and accommodations (see Table 9).

Table 9. Respondents' Traveling Characteristics and Behavior Intents (n=202)

Main purpose	Frequency	Valid percent
Leisure/holiday	111	55.0
Study/teaching	17	8.4
Conference	6	3.0
VFR	37	18.3
Business	18	8.9

Travel pattern	Frequency	Valid percent
With spouse	59	29.2
With spouse and children	21	10.4
With relatives	33	16.3
Business associates	16	7.9
Friends	36	17.8
Individual	34	16.8

Source of information	Frequency	Valid percent
Travel company	24	12.9
TV or radio	3	1.6
Internet	38	20.4
Travel books	54	29.0
Friends/relatives	40	21.5
Welcome Center	27	14.5

Join a group tour?	Frequency	Valid percent
Yes	13	6.7
No	180	93.3

Times of visit	Frequency	Valid percent
First time	120	61.2
2-3 times	42	21.4
4-5 times	13	6.6
More than 5 times	20	10.8

Stay overnight?	Frequency	Valid percent
Yes	154	79.8
No	39	20.2

If stay, how many nights?	Frequency	Valid percent
One night	47	30.7
Two nights	39	25.5
Three nights	17	11.1
Four nights	9	5.9
Over four nights	42	26.8

Where to stay?	Frequency	Valid Percent
Hotel/motel	107	62.9
Friends/relatives	30	17.6
campgrounds	17	10.0
Private home	3	1.8
Bed & breakfast	2	1.2
other	11	6.5

About 55% of the respondents are traveling for leisure purposes. The second largest group is for VFR (visiting friends and relatives, 18.3%). Others such as study/teaching, business, and convention altogether account for 25.6%. Respondents traveling with family members account for 40.2%. Individual travel is approximately 17.1%, while others such as traveling with relatives, friends, or with business associates occupy a total of 42.7%. It reveals that the most popular source that respondents access to obtain Oklahoma's travel information is travel guide/books/articles (29%), followed by friends/relatives (21.5%), and internet (20.4%). Other popular sources also include welcome centers (14.5%) and travel companies (12.9%). Those seeking travel information from TV or radio only account for 1.6%.

Most respondents are non-group visitors (93.3%); only 6.7% of them are attending a group tour. The majority of respondents are first-time visitors (61.2%). Approximately 21.4% are second timers. Others are mainly third timers or four timers. Approximately 79.8% of respondents are going to stay overnight while visiting Oklahoma. Among these overnight visitors, slightly over half are staying for one or two nights (56.2%), while the others are staying for three nights or beyond that. Among the overnight visitors, the majority of them stay in hotels or motels while visiting Oklahoma (62.9%). Others mainly stay either with friends or relatives (17.6%), or stay at campgrounds (10.0%).

4.2 Mean Ratings of Image Attributes

In this study, image attributes consist of cognitive, affective, conative, and overall images. While cognitive, affective, and overall attractiveness attributes are measured with Likert scales, conative attributes are categorical. Since conative attributes mainly refer to

visitors' inclined travel behavior or characteristics, the items listed in the above section such as respondents' expenditures, travel pattern, and type of accommodations are also considered as conative attributes which will be used for subsequent analyses. The following shows the mean ratings of cognitive, affective, and overall image attributes.

4.2.1 Cognitive Attributes

The mean ratings of cognitive attributes are displayed in Table 10. The mean scores range from 3.16 to 4.30, showing that all the cognitive image attributes are perceived to be positive. The attribute with the highest mean score is "helpful local residents" (4.30), followed by "friendly local residents" (4.24). Both are a reflection of local attitudes toward international visitors. Other attributes with mean scores equal to or higher than 4.0 include "interesting native American history" (4.17), "attractive pristine wilderness/fascinating wildlife" (4.01), "a taste of the cowboy life and culture" (4.0), and "beautiful western arts and crafts" (4.0). Attributes with relatively lower mean scores are "convenient local transportation"(3.16), "interesting nightlife"(3.18), "moderate climate"(3.25), and "wonderful golfing"(3.35), etc.

4.2.2 Affective Attributes

As indicated in Table 11, all the affective image attributes are perceived favorably by the respondents, ranging from 3.39 to 4.15. The attributes with mean scores over 4.0 include "meet new people"(4.15), "enjoy something which is special"(4.04), "participate in activities that offer thrills"(4.04), "experience a different life style"(4.03), "enhance knowledge"(4.01), and "enjoy the relaxing atmosphere"(4.01). Relatively, those

Table 10. Mean Ratings of the Perceived Cognitive Attributes

	N	Mean	Std. Deviation
Helpful local residents	197	4.30	.787
Friendly local residents	199	4.24	.841
Interesting native American history	200	4.17	.796
Attractive pristine wilderness/fascinating wildlife	195	4.01	.843
A taste of the cowboy life and culture	197	4.00	.789
Beautiful state parks/lakes	197	4.00	.721
Attractive country & western music	188	3.95	.755
Beautiful western arts and crafts	197	3.94	.799
Spectacular scenery	201	3.93	.894
Interesting museums	194	3.88	.843
Lots of recreational facilities/activities	194	3.85	.780
Appetizing local food/cuisines	193	3.80	.740
Great variety of shopping goods	195	3.76	.859
Appealing American Indian activities	194	3.76	.747
Interesting festivals/activities	195	3.74	.900
Wide variety of accommodations	194	3.71	.788
A land of startling contrast	196	3.68	.819
Easy accessibility	197	3.64	.860
Alluring water activities	193	3.60	.805
Unspoiled eco-systems	187	3.50	.772
Moderate prices	194	3.49	.803
Tranquil environment	196	3.46	.957
Adventurous activities, such as hunting, rock climbing	190	3.38	.759
Wonderful golfing	190	3.35	.813
Moderate climate	193	3.25	.866
Interesting nightlife	192	3.18	.795
Convenient local transportation	191	3.16	.989

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

attributes with the lowest mean scores are "enjoy interesting sports activities"(3.39), "have fun, be entertained"(3.42), and "keep body fit"(3.53), etc.

4.2.3 Overall Attractiveness Attributes

Two items are used to report Oklahoma's overall attractiveness in attracting international visitors. One item is the respondents' agreement on the likelihood of considering Oklahoma for future trips; another item is the likelihood of recommending Oklahoma to relatives and friends. The first item's mean is 3.96, while the second item's mean is 4.00. Both represent respondents' favorable perceptions towards Oklahoma's overall attractiveness.

4.3 VISITORS' PERCEIVED DIFFERENCE OF DESTINATION IMAGE ATTRIBUTES

Hypothesis 1 is designed to test visitors' perceived differences of Oklahoma's destination image attributes. The hypothesis posits that there are significant image differences between the first time and repeat visitors, and between family and non-family visitors. The null and alternative hypotheses are stated as follows:

Ho_1: There are no significant image differences between the first time and repeat visitors, and between family and non-family visitors;

Ha_1: There are significant image differences between the first time and repeat visitors, and between family and non-family visitors.

4.3.1 Perceived Differences Between First-time and Repeat Visitors

In order to detect whether there is a significant difference in the perception of Oklahoma's image attributes (both cognitive and affective) between first-time and repeat visitors, the Independent Samples t-test was employed. The Levene's test was performed

Table 11. Mean Ratings of the Perceived Affective Attributes

	N	Mean	Std. Deviation
Meet new people	198	4.15	.789
Enjoy something which is special	190	4.04	.899
Participate in activities that offer thrills	198	4.04	.729
Experience a different life style	194	4.03	.814
Enhance knowledge	193	4.01	.743
Enjoy the relaxing atmosphere	200	4.01	.737
Have a change from my daily routine	199	3.97	.735
Get close to nature	198	3.96	.773
Get away from crowds of people	196	3.93	.687
Experience tranquility	197	3.90	.760
Visit famous cultural/historical attractions	189	3.89	.871
Visit where my friends have not been to	198	3.86	.899
Visit where many people would like to	194	3.81	.795
Travel safely	195	3.77	.775
Feel at home while away from home	194	3.65	.769
Buy something which is good for value	194	3.64	.817
Experience adventuresome activities	192	3.57	.660
Experience something unexpected or surprising	188	3.56	.710
Obtain favorable prices/discounts	192	3.55	.757
Keep body fit	194	3.53	.834
Have fun, be entertained	191	3.42	.796
Enjoy interesting sports activities	197	3.39	.725

Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

to check for the homogeneity of variance assumption. The result of the Levene's test shows that there were unequal variances in six out of the forty-nine cognitive and affective attributes (see Table 12). Therefore, the separate-variance t-test for means was used (SPSS, 1999) for comparing means of the six image attributes.

As illustrated in Table 12, the Independent Samples t-test indicated a statistically significant difference ($P \leq 0.05$) between the perceptions of first-time visitors and repeat visitors on the attributes of "interesting native American history," "appealing American Indian activities," "attractive country & western music," "lots of recreational facilities/activities," "wonderful golfing," "alluring water activities," "get away from crowds of people," "experience adventuresome activities," "keep body fit," "enjoy interesting sports activities," and "obtain favorable prices/discounts."

Reviews of all the subgroups' mean scores show that repeat visitors' perception mean scores are generally higher than what are perceived by first-time visitors. This indicates that, generally, repeat visitors held a more positive image than the first-time visitors.

4.3.2 Perceived Differences Between Family and Non-familyTravelers

The Independent Samples t-test was also employed to examine whether there is a significant difference in the perception of Oklahoma's image attributes (both cognitive and affective) between family visitors and non-family visitors. The Levene's test was performed to check for the homogeneity of variance assumption. The result of the Levene's test shows that there were unequal variances in sixteen out of the forty-nine cognitive and affective attributes (see Table 13). The separate-variance t-test for means was used for comparing means of the sixteen image attributes.

Table 12. Perceived Differences of Image Attributes between first-time and Repeat Visitors

Image Attributes	First-time Visitors		Repeat Visitors		Mean Difference	t-value	Sig. (2-tailed)
	Mean	**Std**	**Mean**	**Std**			
Cognitive Image Attributes							
Interesting native American history	4.05	.84	4.32	.71	-.27	**-2.31**	**.02****
A taste of the cowboy life and culture	4.02	.81	3.95	.76	.07	.61	.54
Interesting museums	3.87	.84	3.87	.85	.00	.01	.99
Beautiful western arts and crafts	3.91	.83	3.96	.76	-.05	-.42	.67
Tranquil environment	3.40	.95	3.56	.95	-.16	-1.12	.26
Attractive pristine wilderness	3.95	.85	4.09	.85	-.14	-1.06	.29
Interesting festivals/activities	3.68	.94	3.84	.83	-.16	-1.20	.23
Spectacular scenery	3.87	.92	3.99	.85	-.12	-.91	.36
A land of startling contrast	3.65	.82	3.71	.79	-.03	-.46	.65
Appealing American Indian activities	3.67	.74	3.90	.73	-.23	**-2.03**	**.04****
Beautiful state parks/lakes	3.94	.76	4.13	.68	-.19	-1.73	.09
Unspoiled eco-systems	3.43	.87	3.58	.78	-.15	-1.28	.20
Moderate climate	3.19	.76	3.35	.83	-.16	-1.26	.21
Attractive country & western music	3.85	.75	4.07	.70	-.22	**-1.96**	**.05****
Lots of recreational facilities/activities	3.75	.84	3.99	.79.	-.24	**-2.07**	**.04****
Friendly local residents	4.19	.78	4.29	.84	-.10	-.80	.43
Helpful local residents	4.26	.72	4.35	.80	-.09	-.81	.42
Wonderful golfing *	3.20	.74	3.61	.93	-.41	**-3.14**	**.00****
Alluring water activities	3.47	.68	3.82	.87	-.35	**-2.95**	**.00****
Adventurous activities *	3.29	.68	3.52	.86	-.23	-2.01	.06
Interesting nightlife *	3.11	.75	3.34	.87	-.23	-1.80	.07
Wide variety of accommodations	3.69	.79	3.76	.80	-.07	-.57	.57
Appetizing local food/cuisines	3.77	.74	3.84	.75	-.07	-.65	.51
Great variety of shopping goods	3.72	.83	3.86	.89	-.15	-1.16	.26
Easy accessibility	3.61	.82	3.71	.92	-.10	-.80	.43
Convenient local transportation *	3.12	.89	3.24	1.12	-.12	-.81	.44
Moderate prices	3.44	.78	3.59	.79	-.15	-1.22	.22

* equal variances not assumed. ** Significant at level $p \leq 0.05$.

Table 12. Perceived Differences of Image Attributes between first-time and Repeat Visitors (cont'd)

Image Attributes	First-time Visitors		Repeat Visitors		Mean Difference	t-value	Sig. (2-tailed)
	Mean	**Std**	**Mean**	**Std**			
Affective Image Attributes							
Enjoy the relaxing atmosphere	3.95	.74	4.09	.74	-.14	-1.33	.19
Experience tranquility	3.87	.76	3.95	.78	-.07	-.63	.53
Get away from crowds of people	3.84	.66	4.07	.72	-.22	**-2.20**	**.03****
Get close to nature	3.89	.77	4.07	78	-.18	-1.55	.12
Experience something unexpected *	3.55	.67	3.61	.79	-.06	-.49	.62
Participate in activities that offer thrills	3.97	.75	4.12	.68	-.15	-1.44	.15
Have a change from my daily routine	3.95	.70	4.01	.80	-.06	-.59	.56
Experience adventuresome activities	3.50	.63	3.70	.71	-.20	**-2.01**	**.05****
Have fun, be entertained	3.34	.78	3.54	.82	-.20	-1.67	.10
Keep body fit	3.44	.78	3.68	.89	-.24	**-1.95**	**.05****
Enjoy interesting sports activities *	3.30	.66	3.53	.80	-.23	**-2.07**	**.04****
Travel safely	3.72	.79	3.86	.75	-.15	-1.27	.20
Feel at home while away from home	3.65	.74	3.62	.83	.03	.27	.80
Meet new people	4.13	.83	4.19	.73	-.06	-.50	.62
Enhance knowledge	4.00	.77	4.03	.69	-.03	-.25	.80
Experience a different life style	3.96	.83	4.15	.79	-.19	-1.59	.11
Visit where my friends have not been to	3.81	.88	3.99	.89	-.07	-1.33	.18
Visit famous cultural/historical attractions	3.94	.79	3.83	.86	.11	.85	.40
Visit where many people would like to	3.83	.78	3.82	.78	.01	.10	.92
Obtain favorable prices/discounts	3.46	.67	3.69	.87	-.23	**-2.02**	**.05****
Enjoy something which is special	4.05	.90	4.00	.91	.05	.37	.71
Buy something which is good for value	3.65	.86	3.65	.76	.02	.13	.90

* equal variances not assumed. ** Significant at level $p \leq 0.05$.

As illustrated in Table 13, the Independent Samples t-test indicated a statistically significant difference ($P \leq 0.05$) between visitors traveling with family members and visitors traveling without family members on the image attribute of "experience tranquility". Moreover, more significant differences ($P \leq 0.10$) can be found on "interesting native American history," "a taste of the cowboys life and culture," "enjoying the relaxing atmosphere," and "get close to nature." With respects to the image attributes, visitors traveling with family members seem to hold more favorable images of Oklahoma than visitors traveling individually or with others.

Based on the two tests, it shows that significant perceived differences of destination image attributes do exist between these groups; thus, the null hypothesis which assumes that there are no significant image differences between the first time and repeat visitors, and between family and non-family visitors, is rejected.

4.4 Oklahoma's Underlying Image Dimensions

4.4.1 Oklahoma's Cognitive Image Dimensions

The results of factor analysis are presented in Table 14. For the 27 destination items, the test statistic for sphericity is large (2767.344) and statistically significant at 0.001. The KMO measure of sampling adequacy of these variables is 0.827, which according to Kaiser (1974), is meritorious. The communality ranges from 0.57 to 0.88, suggesting that the variance of the original values is reasonably explained by the common factors. Six dimensions comprising 26 importantly loaded items emerge from the analysis. The attribute of "attractive country & western music" is deleted from the factor

Table 13. Perceived Differences of Image Attributes between Family and Non-Family Visitors

Image Attributes	Family Visitors		Non-family Visitors		Mean Difference	t-value	Sig. (2-tailed)
	Mean	**Std**	**Mean**	**Std**			
Cognitive Image Attributes							
Interesting native American history *	4.28	.74	4.08	.81	.19	1.69	.09
A taste of the cowboy life and culture *	4.10	.71	3.91	.77	.19	1.69	.09
Interesting museums	3.94	.86	3.82	.88	.11	.90	.38
Beautiful western arts and crafts *	3.95	.83	3.91	.78	.03	.31	.76
Tranquil environment	3.46	.85	3.46	.95	.00	-.00	.99
Attractive pristine wilderness *	4.03	.85	4.00	.85	.03	.21	.84
Interesting festivals/activities	3.75	.94	3.73	.93	.02	.17	.86
Spectacular scenery	3.96	.92	3.87	.75	.09	.68	.49
A land of startling contrast	3.68	.82	3.67	.79	.02	.15	.89
Appealing American Indian activities	3.69	.74	3.80	.73	-.10	-.95	.34
Beautiful state parks/lakes	4.01	.77	3.99	.65	.02	.20	.84
Unspoiled eco-systems	3.59	.87	3.42	.78	.18	1.53	.13
Moderate climate	3.21	.69	3.27	.84	-.03	-.49	.63
Attractive country & western music	4.03	.75	3.89	.80	.14	1.26	.22
Lots of recreational facilities/activities *	3.86	.84	3.83	.79.	.03	.26	.80
Friendly local residents	4.30	.78	4.13	.74	.13	1.04	.30
Helpful local residents	4.30	.73	4.28	.90	.03	.22	.82
Wonderful golfing	3.32	.74	3.38	.83	-.06	-.51	.61
Alluring water activities	3.58	.68	3.60	.87	-.02	-.15	.88
Adventurous activities *	3.31	.68	3.43	.46	-.12	-1.13	.28
Interesting nightlife	3.20	.85	3.18	.84	.02	.21	.83
Wide variety of accommodations	3.72	.79	3.71	.80	.01	.09	.93
Appetizing local food/cuisines *	3.87	.84	3.75	.76	.12	1.11	.28
Great variety of shopping goods *	3.85	.85	3.72	.79	.13	1.06	.30
Easy accessibility	3.68	.82	3.63	.82	.06	.45	.64
Convenient local transportation *	3.13	.89	3.18	.92	-.04	-.29	.76
Moderate prices *	3.49	.78	3.50	.89	-.02	-.15	.87

* equal variances not assumed.

Table 13. Perceived Differences of Image Attributes between Family and Non-Family Visitors (cont'd)

Image Attributes	Family Visitors		Non-family Visitors		Mean Difference	t-value	Sig. (2-tailed)
	Mean	**Std**	**Mean**	**Std**			
Affective Image Attributes							
Enjoy the relaxing atmosphere	4.11	.74	3.93	.74	.18	1.70	.09
Experience tranquility *	4.06	.76	3.79	.78	.28	**2.53**	**.01****
Get away from crowds of people	4.00	.68	3.88	.82	.12	1.22	.22
Get close to nature	4.06	.79	3.88	.88	.18	1.63	.10
Experience something unexpected	3.53	.68	3.59	.78	-.06	-.58	.55
Participate in activities that offer thrills	4.06	.74	4.01	.67	.05	.51	.60
Have a change from my daily routine	4.06	.70	3.91	.83	.16	1.47	.14
Experience adventuresome activities	3.53	.64	3.59	.73	-.06	-.61	.54
Have fun, be entertained *	3.30	.79	3.49	.87	-.19	-1.60	.12
Keep body fit	3.43	.74	3.61	.87	-.18	-1.48	.14
Enjoy interesting sports activities *	3.31	.65	3.45	.90	-.15	-1.48	.14
Travel safely	3.74	.78	3.79	.85	-.05	-.46	.64
Feel at home while away from home	3.62	.75	3.66	.78	-.05	-.40	.69
Meet new people	4.14	.74	4.15	.79	-.01	-.05	.96
Enhance knowledge	3.99	.78	4.02	.74	-.03	-.28	.78
Experience a different life style *	3.95	.85	4.09	.77	-.14	-1.19	.24
Visit where my friends have not been to *	3.98	.87	3.81	.88	.16	1.36	.20
Visit famous cultural/historical attractions	3.89	.74	3.90	.79	-.01	-.05	.96
Visit where many people would like to *	3.87	.77	3.77	.79	.10	.85	.41
Obtain favorable prices/discounts *	3.65	.77	3.49	.88	.17	1.48	.14
Enjoy something which is special	3.92	.80	4.12	.85	-.20	-1.45	.14
Buy something which is good for value	3.61	.87	3.65	.74	-.04	-.34	.74

* equal variances not assumed. ** Significant at level $p \leq 0.01$.

analysis due to its unreasonably high loading on an unrelated dimension. The six factors explained 70.08% of the variance with eigenvalues ranging from 1.18 to 9.60. The Cronbach's alphas for the six factors range from 0.81 to 0.89, all highly above the minimum value of 0.50, which is considered acceptable for research in its exploratory stages (Nunnally, 1978). The Scree Test also suggests that six factors would be appropriate (see Figure 7). Component correlation matrix indicates that most of the factors are moderately correlated (not too high or too low) with each other. This verifies the adequacy and necessity of applying the oblique rotation for the factor analysis.

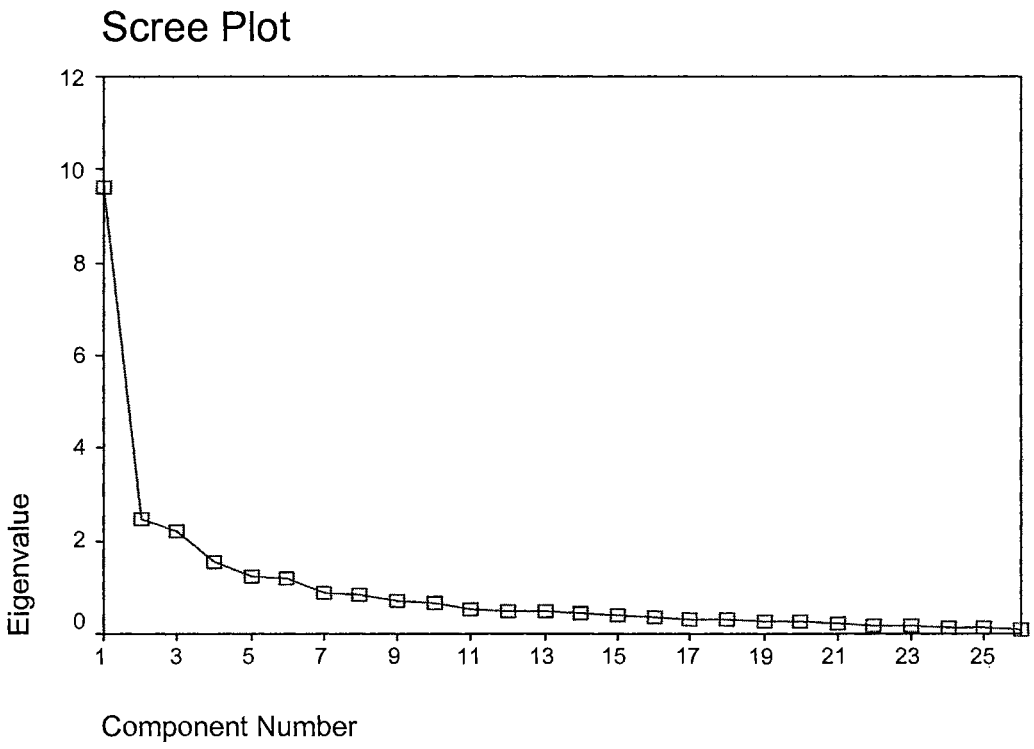
As indicated in Table 14, Factor 1 consists of five items, which are mainly describing Oklahoma's macro and fundamental conditions for traveling such as transportation, accessibility, price, and climate. It is labeled "Convenience of Traveling". Factor 2 consists of four items, all closely related with Oklahoma's cultural and historical attractions, hence named "Cultural Attractions". Factor 3 is represented by five factors depicting Oklahoma's natural resources, and it is labeled "Natural Attractions". Factor 4 is converged by five items symbolizing Oklahoma's attractiveness in recreation and outdoor activities. This factor is named "Outdoor Recreational Activities". The five items formulating Factor 5 introduce Oklahoma's accommodations, shopping, and nightlife, thus named "Accommodation/shopping/nightlife". The summated scales of the six factors reveal that, Factor 6, "Local Attitudes", has the highest mean score of 4.27. The second highly rated factor is Factor 4, "Outdoor Recreational Activities", followed by Factor 3, "Natural Attractions"(3.82), Factor 5, "Accommodation, Shopping, and Nightlife"(3.63), and Factor 2, "Cultural Attractions"(3.56). The factor with the lowest mean score is Factor 1, "Convenience of Traveling"(3.37).

Table 14. Oklahoma's Cognitive Image Dimensions

Variables	Promax Rotated Loading						Communality
	F1	F2	F3	F4	F5	F6	
Factor 1 – Convenience of Traveling							
Convenient local transportation	.834	.486		.556	.557		.77
Moderate prices	.832	.465		.554	.390	.368	.73
Easy accessibility	.828	.434		.446	.492	.319	.70
Tranquil environment	.779	.379		.384			.65
Moderate climate	.720						.71
Factor 2 – Cultural Attractions							
Interesting museums	.522	.832		.328	.600	.357	.78
Interesting native American history	.308	.825			.360	.380	.71
Beautiful western arts and crafts	.456	.779	.374		.413	.370	.66
A taste of the cowboy life and culture	.303	.710				.507	.57
Factor 3 – Natural Attractions							
Attractive pristine wilderness/fascinating wildlife		.463	.734				.75
A land of startling contrast/unusual geological formations	.361		.733	.354	.397	.386	.65
Spectacular scenery			.708		.526	.446	.74
Unspoiled eco-systems	.358		.694	.434			.59
Beautiful state parks/lakes	.329	.480	.680	.494		.413	.65
Factor 4 – Outdoor Recreational Activities							
Alluring water activities, e.g. fishing, canoeing, camping	.356		.345	.856		.304	.79
Wonderful golfing	.447			.784			.70
Adventurous activities, such as hunting, rock climbing			.405	.739	.472		.79
Appealing American Indian activities	.384	.374	.589	.653		.405	.65
Lots of recreational facilities/activities	.391	.379	.416	.594		.531	.57
Factor 5 – Accommodation/shopping/nightlife, etc.							
Wide variety of accommodations		.350	.314		.810	.393	.76
Appetizing local food/cuisines	.555	.610			.775	.532	.76
Great variety of shopping goods	.521	.606			.663	.421	.64
Interesting festivals/activities	.550	.524		.399	.648	.468	.57
Interesting nightlife	.479			.572	.612		.60
Factor 6 – Local Attitudes							
Friendly local residents	.382	.493			.428	.927	.88
Helpful local residents	.332	.431			.460	.920	.87
Eigenvalue	9.60	2.48	2.20	1.53	1.23	1.18	
Variance (percent)	36.91	9.55	8.46	5.89	4.72	4.54	
Cumulative variance (percent)	36.91	46.47	54.93	60.82	65.54	70.08	
Cronbach's alpha	.85	.84	.81	.81	.82	.89	
Summated Mean	3.37	3.56	3.82	4.0	3.63	4.27	
Number of items (total=26)	5	4	5	5	5	2	

Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization. Factor loadings less than 0.10 are omitted.

Figure 7. Scree Test of Oklahoma's Cognitive Image Dimensions



4.4.2 Oklahoma's Affective Image Dimensions

The results of factor analysis are presented in Table 15. For the 22 affective attributes, the test statistic for sphericity is also large (2211.184) which is statistically significant at 0.001. The KMO measure of sampling adequacy of these variables is 0.829, which is meritorious. The communality ranges from 0.60 to 0.85, suggesting a reasonable explanation of the common factors. Five factors can be extracted from the factor analysis with each dimension's eigenvalue larger than 1.0. However, it is noticed that, though the sixth factor has an eigenvalue slightly below 1.0, it contributes a substantial increase of variance (4.37%) by increasing the total explained variance from the original 67.43% to 71.79%. More significantly, dimensions based on the six factors seem to be more distinct

and interpretable than based on the five factors. Also interestingly, when adopting the six factors instead of five, all 22 items seem to be adequately loaded on their corresponding factors. Moreover, the Scree Test shows that six factors would be appropriate. Thus it is decided to surrogate the 22 affective items with six factors. The Cronbach's alphas for the six factors range from 0.71 to 0.91. Component correlation matrix shows that all factors have low correlations (lower than .30); thus orthogonal rotation is a suitable method for this factor analysis.

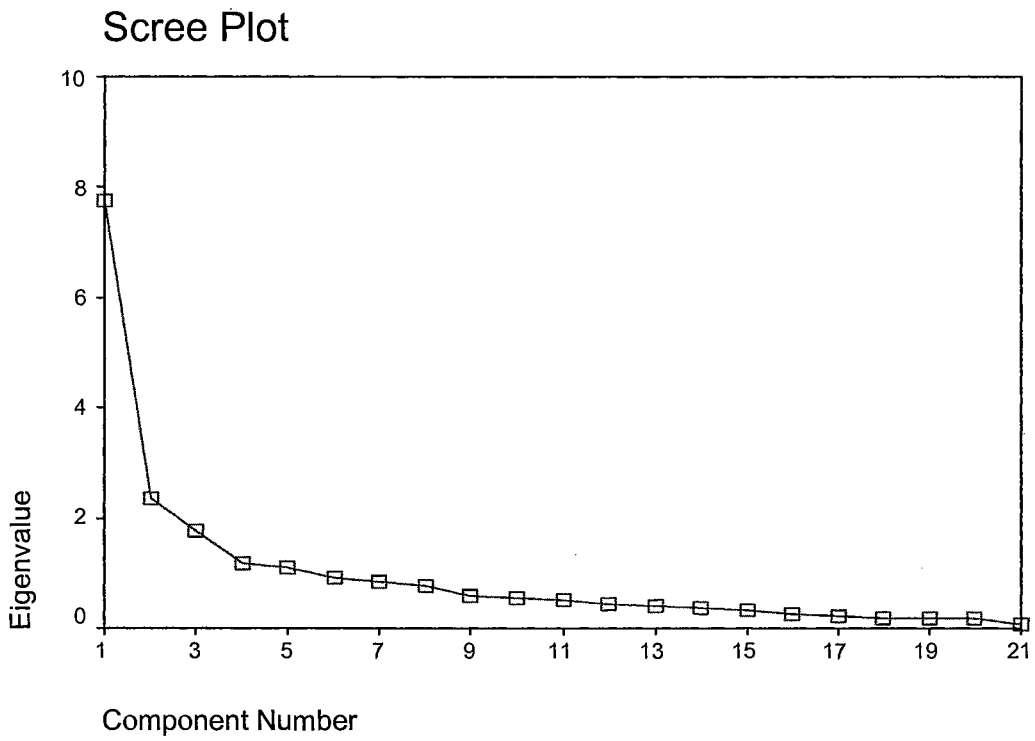
Table 15 shows that Factor 1 is composed of four items and "Relaxation" seems to be a suitable label for this factor. Factor 2 consists of five items, which can be namely labeled "Novelty Seeking". Factor 3 is represented by three factors and accordingly named "Sports/keep-fit". Factors 4, 5, and 6 are also converged by three items, respectively. Factor 4 reflects respondents' prestigious feeling, hence the name of "Prestige Seeking". Factor 5 is "Safety/benefit Seeking" since the items are related with respondents' safety and benefit concern. The last factor, Factor 6, describes the dimension of thrilling and adventurous activities, and is thus named "Thrills/adventures". In terms of these factors' summated mean scales, Factor 2, "Novelty Seeking", obtains the highest mean scale of 4.02. The second highly rated factor is Factor 1, "Relaxation"(3.94), followed by Factor 4, "Prestige Seeking"(3.86), Factor 6, "Thrills/adventures"(3.71), and Factor 5, "Safety/benefit Seeking"(3.64). The factor with the lowest mean scale is Factor 3, "Sports/keep-fit" (3.42).

Table 15. Oklahoma's Affective Image Dimensions

Variables	Varimax Rotated Loading						Communality
	F1	F2	F3	F4	F5	F6	
Factor 1 - Relaxation							
Experience tranquility	.870		.102	.196	.109		.82
Enjoy the relaxing atmosphere	.858	.133	.272		.125		.85
Get away from crowds of people	.809	.138	.103			.323	.79
Get close to nature	.767	.263		.224		.172	.74
Factor 2 – Novelty Seeking							
Experience a different life style	.156	.756			.203	.314	.75
Enhance knowledge		.718	-.130	.312	.108	.247	.70
Enjoy something which is special		.700	.262	.203	.189		.64
Meet new people	.325	.679		.299	.163		.69
Have a change from my daily routine	.344	.647	.206	.112	.194		.63
Factor 3 – Sports/keep-fit							
Enjoy interesting sports activities	.166		.869	.174		.157	.166
Keep body fit	.229		.776	.101		.202	.229
Have fun, be entertained		.320	.629	-.186	.440	.110	
Factor 4 – Prestige Seeking							
Visit famous cultural/historical attractions		.324	.137	.809	.115	.114	.81
Visit where many people would like to	.260	.252		.683	.222	.239	.71
Visit where my friends have not been to	.456	.214	.222	.537			.60
Factor 5 – Safety/ Benefit Seeking							
Obtain favorable prices/discounts	.114	.103			.757	.208	.65
Buy something which is good for value		.298		.340	.714		.72
Travel safely	.290	.337	.178	.296	.585		.66
Factor 6 – Thrills/adventures							
Experience adventuresome activities	.216	.113	.294	.137		.710	.68
Experience something unexpected or surprising	.337			.320	.220	.643	.69
Participate in activities that offer thrills	.110	.485	.199			.612	.66
Eigenvalue	7.78	2.35	1.77	1.18	1.09	.92	
Variance (percent)	37.02	11.21	8.40	5.61	5.18	4.37	
Cumulative variance (percent)	37.02	48.23	56.64	62.25	67.43	71.79	
Cronbach's alpha	.91	.86	.78	.78	.72	.71	
Summated Mean	3.94	4.02	3.42	3.86	3.64	3.71	
Number of items (total=26)	4	5	3	3	3	3	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Factor loadings less than 0.10 are omitted.

Figure 8. Scree Test of Oklahoma's Affective Image Dimensions



4.5 VISITORS' LIKELIHOOD OF RETURN, RECOMMENDATION, AND OKLAHOMA'S OVERALL ATTRACTIVENESS

Two sets of image factors, i.e. cognitive and affective, are used separately as independent variables in predicting Oklahoma's overall attractiveness. Two items, "respondents' likelihood to revisit Oklahoma" and "respondents' likelihood to recommend Oklahoma to their friends", are used and collapsed to represent Oklahoma's overall attractiveness, which are treated as the dependent variables, respectively. Reliability analysis is run to see these two items' internal consistency that is 0.754. The summated mean of these two items is 4.0. Multiple regression analyses were run,

respectively, with stepwise method to examine the relationships between the independent variables and the dependent variables.

4.5.1 Predicting Visitors' Likelihood of Return

In order to make clear which image dimensions are specifically influential and predictive to visitors' likelihood of return to Oklahoma and visitors' likelihood of recommending Oklahoma to others, separate multiple regression analyses were conducted to these two overall attractiveness items

Predicted by Cognitive Image Dimensions

The result of multiple regression analysis is illustrated in Table 16. The regression equation model indicates an adjusted R^2 of 0.434, which means that 43.4% of the total variance in the dependent variable can be explained by the independent variables in the model. The F-ratio of 39.607 is significant (Prob.< 0.001), indicating that the result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). All the t values for the partial correlations are statistically significant at the level of 0.05. As a result, four cognitive factors are found to be significant in predicting visitors' likelihood of revisiting Oklahoma, i.e. Factor 2, "Cultural Attractions", Factor 3, "Natural Attractions", Factor 4, "Outdoor-recreational Activities", and Factor 6, "Local Attitudes". Other factors are found insignificant in predicting the dependent variable.

Table 16. Predicting Visitors' Likelihood of Return with Cognitive Image Factors

R^2 =.446, Adjusted R^2 = .434

	Sum of Squares	df	Mean Square	F	Sig.
Regression	40.989	43	10.247	39.607	.000
Residual	50.968	197	.259		
Total	91.957	201			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	.343		1.133	.258		1.000
X_2	.166	.132	2.095	.037	1.417	16.265
X_3	.215	.184	2.696	.008	1.659	17.344
X_4	.416	.397	6.094	.000	1.508	20.996
X_6	.128	.143	2.302	.022	1.378	23.289

Dependent Variable: Likelihood of return

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_5	-.042	-.642	.522	-.046	.668	1.497
X_1	-.107	-1.380	.169	-.098	.466	2.147

The regression equation model is shown as follows:

$$\hat{Y} = 0.343 + 0.166X_2 + 0.215X_3 + 0.416X_4 + 0.128X_6$$

where,

$\hat{Y}$ = Visitors' likelihood of return

X_2 = Cultural Attractions;

X_3 = Natural Attractions;

X_4 = Outdoor-recreational Activities;

X_6 = Local Attitudes

Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable can be predicted. For instance, an

increase of one unit in the independent variable of "Cultural Attractions" will bring 0.166 unit increase in the dependent variable "likelihood of return" while keeping other variables constant. Suppose all the independent variables were 1 which indicates a least favorable image, visitors' predicted likelihood of return would be 1, also indicating visitors' low likelihood of revisiting Oklahoma. If all the four independent variables were 5, which shows a most favorable image, visitors' predicted likelihood of return would be approximately 5, indicating visitors' high likelihood of revisiting Oklahoma.

Likewise, based on the Beta, it shows that the most important cognitive image dimension in contributing to visitors' likelihood of revisiting Oklahoma is "Outdoor-recreational Activities"(Beta=0.397), followed by "Natural Attractions" (Beta=0.184), "Local Attitudes" (Beta=0.143), and "Cultural Attractions" (Beta = 0.132).

Predicted by Affective Image Dimensions

As illustrated in Table 17, the regression equation model indicates an adjusted R^2 of 0.213, which means that 21.3% of the total variance in the dependent variable can be explained by the independent variables in the model. The F-ratio of 28.173 is significant (Prob.< 0.001), indicating that the result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). All the *t* values for the partial correlations are statistically significant at the level of 0.05. As a result, two affective factors are found to be significant in predicting visitors' likelihood of revisiting Oklahoma, i.e. Factor 1, "Relaxation" and Factor 2, "Novelty Seeking". Other factors are found insignificant in predicting the dependent variable.

Table 17. Predicting Visitors' Likelihood of Return with Affective Image Factors

R^2 =.221, Adjusted R^2 = .213

	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.294	2	10.147	28.176	.000
Residual	71.663	199	.360		
Total	91.957	201			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	1.520		4.616	.000		1.000
X_1	.223	.211	3.095	.000	1.188	14.276
X_2	.387	.344	5.045	.003	1.188	16.667

Dependent Variable: Likelihood of return

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_6	F6_AFF	.373	.710	.026	.646	1.548
X_3	F3_AFF	-.014	.989	-.001	.799	1.251
X_5	F5_AFF	.989	.324	.070	.673	1.486
X_4	F4_AFF	1.630	.105	.115	.535	1.870

The regression equation model is shown as follows:

$$\hat{Y} = 1.520 + 0.223X_1 + 0.387X_2$$

where,

$\hat{Y}$ = Visitors' likelihood of return

X_1 = Relaxation;

X_4 = Novelty Seeking

Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable. For instance, an increase of one unit in the independent variable of "Relaxation" will bring 0.223 unit increase in the dependent variable "likelihood of return" while keeping other variables constant. Suppose all the

independent variables were 1 which indicates a least favorable image, visitors' predicted likelihood of return would be 2, also indicating visitors' low likelihood of return; If all the two independent variables were 5, which shows a most favorable image, visitors' predicted likelihood of return would almost be 5, indicating visitors' high likelihood of return.

Likewise, based on the Beta, it is noticed that the most important affective image dimension in contributing to visitors' likelihood of revisiting Oklahoma is "Novelty Seeking" (Beta = 0.344), followed by "Relaxation" (Beta=0.211).

Hypothesis 2 proposes that destination images have significant impact on visitors' likelihood of return. Since the regression model is significant in predicting visitors' likelihood of return with both cognitive image dimensions and affective image dimensions, the null hypothesis, which posited that destination image dimensions have no significant impact on visitors' likelihood of revisiting Oklahoma, is rejected.

4.5.2 Predicting Visitors' Likelihood of Recommending to Others

Predicted by Cognitive Image Dimensions

The result of multiple regression analysis is illustrated in Table 18. The regression equation model indicates an adjusted R^2 of 0.553, which means that 55.3% of the total variance in the dependent variable can be explained by the independent variables in the model. The F-ratio of 83.768 is significant (Prob.< 0.001), indicating that the result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). All the t values for the partial correlations are

statistically significant at the level of 0.05. As a result, three cognitive factors are found to be significant in predicting visitors' likelihood of recommending to others, i.e. Factor 2, "Cultural Attractions", Factor 3, "Natural Attractions", and Factor 4, "Outdoor-recreational Activities". Other factors are found insignificant in predicting the dependent variable.

Table 18. Predicting Visitors' Likelihood of Recommending to Others with Cognitive Image Factors

R^2 =.559, Adjusted R^2 = .553

	Sum of Squares	df	Mean Square	F	Sig.
Regression	57.051	3	19.017	83.768	.000
Residual	44.949	198	.227		
Total	102.000	201			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	-.130		-.468	.640		1.000
X_2	.332	.251	4.607	.000	1.335	15.363
X_3	.646	.526	8.690	.000	1.607	18.727
X_4	.121	.109	1.989	.048	1.361	20.624

Dependent Variable: Likelihood of recommending to others

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_5	-.002	-.037	.971	-.003	.498	2.006
X_1	-.033	-.566	.572	-.040	.675	1.481
X_6	.052	.939	.349	.067	.726	1.378

The regression equation model is shown as follows:

$$\hat{Y} = -0.130 + 0.332X_2 + 0.646X_3 + 0.121X_4$$

where,

$\hat{Y}$ = Visitors' likelihood of recommending to others ;

X_2 = Cultural Attractions;

X_3 = Natural Attractions;

X_4 = Outdoor-recreational Activities

Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable can be predicted. For instance, an increase of one unit in the independent variable of "Cultural Attractions" will bring 0.332 unit increase in the dependent variable "likelihood of recommendation" while keeping other variables constant. Suppose all the independent variables were 1 which indicates a least favorable image, visitors' likelihood of recommending to others would also be 1, indicating visitors' low likelihood of recommending to others; If all the three independent variables were 5, which shows a most favorable image, visitors' likelihood of recommending to others would 5, indicating visitors' high likelihood of recommending to others.

Based on the Beta, it is noticed that the most important cognitive image dimension in contributing to visitors' likelihood of recommending to others is "Natural Attractions" (Beta = 0.526), followed by "Cultural Attractions" (Beta=0.251), and "Outdoor-recreational Activities" (Beta=0.109).

Predicted by Affective Image Dimensions

As illustrated in Table 19, the regression equation model indicates an adjusted R^2 of 0.299, which means that 29.9% of the total variance in the dependent variable can be explained by the independent variables in the model. The F-ratio of 43.836 is significant (Prob.< 0.001), indicating that the result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). All

the *t* values for the partial correlations are statistically significant at the level of 0.01. As a result, two affective factors are found to be significant in predicting visitors' likelihood of recommending to others, i.e. Factor 1, "Relaxation" and Factor 4, "Prestige Seeking". Other factors are found insignificant in predicting the dependent variable.

The regression equation model is shown as follows:

$$\hat{Y} = 1.327 + 0.427X_1 + 0.257X_4$$

where,

$\hat{Y}$ = Visitors' likelihood of recommending to others ;

X_1 = Relaxation;

X_4 = Prestige Seeking

Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable can be predicted. For instance, an increase of one unit in the independent variable of "Relaxation" will bring 0.427 unit increase in the dependent variable "likelihood of recommending to others" while keeping other variables constant. Suppose all the independent variables were 1 which indicates a least favorable image, visitors' predicted likelihood of recommending to others would be 2, also indicating visitors' low likelihood of recommending to others; If all the two independent variables were 5, which shows a most favorable image, visitors' likelihood of recommending to others would be nearly 5, indicating visitors' high likelihood of recommending Oklahoma to others.

Likewise, based on the Beta, it is noticed that the most important affective image dimension in contributing to visitors' likelihood of recommending to others is "Relaxation" (Beta = 0.383), followed by "Prestige Seeking" (Beta=0.245).

Table 19. Predicting Visitors' Likelihood of Recommending to Others with Affective Image Factors

R^2 =.306, Adjusted R^2 = .299

	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.194	2	15.597	43.836	.000
Residual	70.806	199	.356		
Total	102.000	201			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	1.327		4.593	.000		1.000
X_1	.427	.383	5.522	.000	1.380	13.988
X_4	.257	.245	3.537	.001	1.380	15.535

Dependent Variable: Likelihood of recommending to others

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_5	.035	.514	.608	.036	.738	1.356
X_6	.038	.526	.600	.037	.655	1.527
X_3	.039	.597	.551	.042	.840	1.191
X_2	.114	1.531	.127	.108	.622	1.609

Hypothesis 3 proposes that destination images have significant impact on visitors' likelihood of recommending Oklahoma to others. Since the regression model is significant in predicting visitors' likelihood of recommendation with both cognitive image dimensions and affective image dimensions, the null hypothesis, which posited that destination image dimensions have no significant impact on visitors' likelihood of recommending Oklahoma to others, is rejected.

4.5.3 Overall Attractiveness Predicted by Destination Image Dimensions

Predicted by Cognitive Image Dimensions

The result of multiple regression analysis is illustrated in Table 20. The regression equation model indicates a good adjusted R^2 of 0.573, which means that 57.3% of the dependent variable's variations can be explained by the independent variables in the

model. The F-ratio of 90.389 is significant (Prob.< 0.001), indicating that result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). T-statistic test is used for testing whether the independent variables contribute meaningful information to the predictions of the dependent variable. If t-value of an independent variable is found to be significant at the level of 0.05, that variable is then included in the model. Validation of the model is pre-tested by splitting the sample into one estimation sample and one validation sample. This process shows that the equation model and adjusted R square are quite similar, hence verifying that the model is robust in predicting. By following such a procedure, three independent variables are found to be significant in predicting the dependent variable, i.e. Factor 2, "Cultural Attractions", Factor 3, "Natural Attractions", and Factor 4, "Outdoor Recreational Activities". Other factors are excluded from the equation model.

Based on the result of the regression analysis, the regression equation model reflecting respondents' perceived cognitive dimensions contributing to Oklahoma's overall attractiveness is illustrated as follows:

$$\hat{Y} = 0.161 + 0.237X_2 + 0.444X_3 + 0.320X_4$$

where,

$\hat{Y}$ = Oklahoma's Overall Attractiveness;

X_2 = Cultural Attractions (Factor 2);

X_3= Natural Attractions (Factor 3);

X_4 = Outdoor Recreational Activities (Factor 4)

Table 20. Predicting Oklahoma's Overall Attractiveness with Cognitive Image Factors

R^2 =.579, Adjusted R^2 = .573

	Sum of Squares	df	Mean Square	F	Sig.
Regression	43.461	3	14.487	90.389	.000
Residual	31.574	197	.160		
Total	75.036	200			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	.161		.672	.502		1.000
X_2	.237	.209	3.880	.000	1.358	16.099
X_3	.444	.415	7.096	.000	1.604	18.997
X_4	.320	.320	6.003	.000	1.328	20.673

Dependent Variable: Overall Attractiveness

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_5	-.040	-.618	.538	-.044	.508	1.970
X_1	-.054	-.955	.341	-.068	.659	1.519
X_6	.088	1.605	.110	.114	.708	1.412

The meaning of this equation model is that the variations of Oklahoma's overall attractiveness can be significantly predicted by three cognitive variables, i.e. "Cultural Attractions", "Natural Attractions", and "Outdoor Recreational Activities". These factors are the three main factors contributing to Oklahoma's overall attractiveness. Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable can be predicted. For instance, an increase of one unit in the independent variable of "Cultural Attractions" will bring 0.237 unit increase in the dependent variable "Overall Attractiveness" while keeping other variables constant. Suppose all the independent variables were 1 which indicates a least favorable image, the predicted overall attractiveness would be 1, also indicating a least favorable perception of Oklahoma's overall attractiveness; if all the three independent variables were 5, which

shows a most favorable image, the predicted overall attractiveness would be 5, indicating a most favorable perception of Oklahoma's overall attractiveness.

The standardized regression coefficient 'Beta' indicates the rank order of importance of the predictor variables. Based on the Beta (standardized coefficients), it can be predicted as to which factor has a relatively more powerful influence in predicting the dependent variable. Thus, it is found that the most important factor is Factor 3, "Natural Attractions" (Beta = 0.415), followed by Factor 4, "Outdoor Recreational Activities" (Beta=0.320), and then Factor 2, "Cultural Attractions" (0.209). Likewise, the Beta square can be used to indicate the relative importance of each dimension contributing to the overall attractiveness.

Predicted by Affective Image Dimensions

The result of multiple regression analysis on affective dimensions is illustrated in Table 21. The regression equation model indicates an adjusted R^2 of 0.313, which means that 30.3% of the total variance in the dependent variable can be explained by the independent variables in the model. The F-ratio of 30.121 is significant (Prob.< 0.001), indicating that result of the equation model could hardly occur by chance. The degree of variable collinearity is considered acceptable with the variance inflation (VIF) less than 10, and the condition indices less than 30 (Belsley, 1991). All the t values for the partial correlations are statistically significant at the level of 0.05. The validation of the model is also tested which proves to be robust. As a result, three affective factors are found to be significant in predicting the overall attractiveness, i.e. Factor 1, "Relaxation", Factor 2, "Novelty Seeking", and Factor 4, "Prestige Seeking". Other factors are found insignificant in predicting the dependent variable.

The regression equation model is shown as follows:

$$\hat{Y} = 1.387 + 0.279X_1 + 0.228X_2 + 0.150X_4$$

where,

$\hat{Y}$ = Oklahoma's Overall Attractiveness;

X_1 = Relaxation (Factor 1);

X_2= Novelty Seeking (Factor 2);

X_4 = Prestige Seeking (Factor 4)

Based on the unstandardized coefficients, the influential scale of each independent variable over the dependent variable can be predicted. For instance, an increase of one unit in the independent variable of "Relaxation" will bring 0.279 unit increase in the dependent variable "overall attractiveness" while keeping other variables constant. Suppose all the independent variables were 1 which indicates a least favorable image, the predicted overall attractiveness would be 2, also indicating a less favorable perception of Oklahoma's overall attractiveness; If all the three independent variables were 5, which shows a most favorable image, the predicted overall attractiveness would be almost 5, indicating a highly favorable perception of Oklahoma's overall attractiveness.

Likewise, the unstandardized coefficients, Beta, and Beta Square are used to predict each independent variable's predictability, rank order and relative importance in prediction. Based on the Beta, it is noticed that the most important affective factor is Factor 1, "Relaxation" (Beta = 0.292), followed by Factor 2, "Novelty Seeking" (Beta=0.225), and then Factor 4, "Prestige Seeking" (0.168).

Table 21. Predicting Oklahoma's Overall Attractiveness with Affective Image Factors

R^2 =.313, Adjusted R^2 = .303

	Sum of Squares	df	Mean Square	F	Sig.
Regression	23.514	3	7.838	30.121	.000
Residual	51.522	198	.260		
Total	75.036	201			

Variables in the Equation

Variable	B	Beta	t	Sig.	VIF	Condition Index
(Constant)	1.387		4.943	.000		1.000
X_1	.279	.292	4.196	.000	1.399	16.010
X_2	.228	.225	3.007	.003	1.609	16.550
X_4	.150	.168	2.081	.039	1.870	21.647

Dependent Variable: Overall Attractiveness

Excluded Variables

	Beta	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	VIF
X_6	.000	.005	.996	.000	.623	1.604
X_3	.002	.037	.970	.003	.796	1.256
X_5	.030	.407	.684	.029	.642	1.558

Favorable Image Dimensions versus Important Image Dimensions

Hypothesis 4 proposes that the more positive an image dimension is, the more it is possible to become an important dimension in determining destinations' overall attractiveness. The null and alternative hypotheses are stated as follows:

Ho_4: The leading factors assessing the overall destination attractiveness are those highly rated image dimensions;

Ha_4: The leading factors assessing the overall destination attractiveness are not those highly rated image dimensions.

Table 22. Image Dimensions in Order of Mean Score Rating and Relative Importance in Predicting Overall Attractiveness

Image Dimensions	In Order of Mean Score Rating	Relative Importance in Prediction
Cognitive Images	Local Attitudes(4.27) Outdoor Recreational Activities(4.0) Natural Attractions(3.82) Accommodation, Shopping, Nightlife, etc.(3.63) Cultural Attractions(3.56) Convenience of Traveling(3.37)	Natural Attractions Outdoor Recreational Activities Cultural Attractions
Affective Images	Novelty Seeking(4.02) Relaxation(3.94) Prestige Seeking(3.86) Thrills/adventures(3.71) Safety/benefit Seeking(3.64) Sports/keep-fit(3.42)	Relaxation Novelty Seeking Prestige Seeking

Based on the results of the factor analyses and multiple regression analyses, the cognitive and affective image dimensions in order of mean score ratings and their relative importance in predicting are respectively illustrated in Table 22. Generally, it shows that leading factors in contributing to the overall attractiveness are not consistent with those highly rated image dimensions. For instance, the cognitive image dimension with the highest mean score is "Local Attitudes"; however, the most important factor in predicting Oklahoma's overall attractiveness is "Natural Attractions". Likewise, the affective image

dimension with the highest mean score is "Novelty Seeking," while the most important factor in predicting Oklahoma's overall attractiveness is "Relaxation." Thus, the null hypothesis that "the leading factors assessing the overall destination attractiveness are those highly rated image dimensions" is rejected.

4.5.4 Summary of the Regression Models and Important Image Dimension in Predicting Visitors' Likelihood of Return and Recommendation, and Overall Attractiveness

A summary table (see Table 23) is created to sum up all the regression models and important image dimensions which are found significant in predicting visitors' likelihood of return, visitors' likelihood of recommending to others, and Oklahoma's overall attractiveness.

Interestingly, it shows that three cognitive image factors, i.e. "Natural Attractions", "Cultural Attractions", and "Outdoor Recreational Activities", are found to be significant in predicting all the three dependent variables. "Relaxation" is an important affective image factor in predicting the three dependent variables.

Apart from these common factors, "Local Attitudes" is an important cognitive factor which has significant impact on visitors' likelihood of return. "Novelty Seeking" is an affective important factor in predicting both visitors' likelihood of recommendation and Oklahoma's overall attractiveness; while "Prestige Seeking" is an important affective factor contributing to visitors' likelihood of recommendation to Oklahoma's overall attractiveness.

Table 23. Summary of the Regression Models and Important Image Factors

	Cognitive Images	Affective Images
Visitors' Likelihood of Return	$\hat{Y} = 0.343 + 0.166X_2 + 0.215X_3 + 0.416X_4 + 0.128X_6$ where, $\hat{Y}$ = Visitors' likelihood of return X_2 = Cultural Attractions; X_3 = Natural Attractions; X_4 = Outdoor-recreational Activities; X_6 = Local Attitudes	$\hat{Y} = 1.520 + 0.223X_1 + 0.387X_2$ where, $\hat{Y}$ = Visitors' likelihood of return X_1 = Relaxation; X_4 = Novelty Seeking
Visitors' Likelihood of Recommendation	$\hat{Y} = -0.130 + 0.332X_2 + 0.646X_3 + 0.121X_4$ where, $\hat{Y}$ = Visitors' likelihood of recommending to others ; X_2 = Cultural Attractions; X_3 = Natural Attractions; X_4 = Outdoor-recreational Activities	$\hat{Y} = 1.327 + 0.427X_1 + 0.257X_4$ where, $\hat{Y}$ = Visitors' likelihood of recommending to others ; X_1 = Relaxation; X_4 = Prestige Seeking
Oklahoma's Overall Attractiveness	$\hat{Y} = 0.161 + 0.237X_2 + 0.444X_3 + 0.320X_4$ where, $\hat{Y}$ = Oklahoma's Overall Attractiveness; X_2 = Cultural Attractions; X_3= Natural Attractions; X_4 = Outdoor Recreational Activities	$\hat{Y} = 1.387 + 0.279X_1 + 0.228X_2 + 0.150X_4$ where, $\hat{Y}$ = Oklahoma's Overall Attractiveness; X_1 = Relaxation; X_2= Novelty Seeking; X_4 = Prestige Seeking

4.6 Relationship between Cognitive and Affective Image Dimensions

Hypothesis 5 proposes that there exists interrelationship between image's two major components, i.e. cognitive and affective. The null and alternative hypotheses are stated as follows:

Ho_5: There are no significant canonical correlations between cognitive image attributes and affective image attributes;

Ha_5: There are significant canonical correlations between cognitive image attributes and affective image attributes

To test the hypothesis, canonical correlation analysis is employed to determine the nature and magnitude of the relationship between the two sets of image variables, i.e. cognitive factors and affective factors. The criterion (dependent) variables are the six affective factors. The predictor (independent) variables are the six cognitive factors. As shown in Table 24, this canonical correlation analysis results in four canonical functions significant at the level of 0.01.

The canonical correlation coefficients range from 0.352 to 0.824. The eigenvalues range from 0.14 to 2.11. About 83.58% of the variance of the affective factors and 82.26% of the variance of the cognitive factors can be traced by the four functions. The redundancy index indicates that about 43.86% of the variance of the affective factors is explained by the cognitive factors, and 44.15% of cognitive factors is accounted for by the affective factors. This indicates that cognitive and affective image dimensions are closely interrelated. Thus, the null hypothesis that "there are no significant canonical correlations between cognitive image attributes and affective image attributes" is rejected.

Table 24. Overall Results of Canonical Correlation Analysis between Affective and Cognitive Dimensions

Variate Number	**1**	**2**	**3**	**4**	**5**	**6**
Canonical correlation	0.824	0.610	0.443	0.352	0.160	0.141
Eigenvalue	2.11	0.59	0.24	0.14	0.026	0.020
Canonical R Square	0.679	0.372	0.196	0.124	0.026	0.020
F-Value	9.32	5.18	3.55	2.77	1.58	2.78
Significance (P<)	0.001*	0.001*	0.001*	0.004*	0.179	0.099
(%) of variance traced:						
Affective dimensions	54.28	10.98	9.17	9.15	10.66	5.76
Cumulative (%)	54.28	65.26	74.43	83.58	94.24	100
Cognitive dimensions	55.23	10.83	8.69	7.50	9.25	8.49
Cumulative (%)	55.23	66.06	74.75	82.26	91.51	100
Redundancy (%):						
Affective dimensions	36.84	4.08	1.80	1.13	0.27	0.11
Cumulative (%)	36.84	40.93	42.73	43.86	44.13	44.25
Cognitive dimensions	37.49	4.03	1.70	0.93	0.24	0.17
Cumulative (%)	37.49	41.52	43.22	44.15	44.39	44.56

* significant at the level of 0.01.

Moreover, Table 25 contains the canonical loadings for the dependent and independent variates for the four canonical functions. The objective of maximizing the variates for the correlation between them results in variates "optimized" not for interpretation, but instead for prediction (Hair et al. 1998, p. 458). Variables with a canonical loading of 0.40 or above are considered for the interpretation of the variates as shown in the table. Table 25 gives a summary of the four significant variates with their associated affective and cognitive dimensions.

Table 25. Canonical Loadings

	Variates*			
	1	**2**	**3**	**4**
Affective Dimensions:				
Relaxation	.6836			
Novelty Seeking	.8448		-.4044	
Sports/ Keep-fit	.6670	-.6725		
Prestige Seeking	.7590			
Safety/ Benefit Seeking	.7061			-.5504
Thrills/ Adventures	.7235			.5611
Motivation Dimensions:				
Convenience of Traveling	.7447			-.5097
Cultural Attractions	. 6150		.5742	
Natural Attractions	. 6994	-.5316		
Outdoor Recreational Activities	.7513			
Accommodation, Shopping, nightlife, etc	.9517			
Local Attitudes	.6761	.4197		

* Canonical loadings less than .40 are omitted from the table.

The first variate pair shows that all the six affective dimensions and the six cognitive dimensions have high loadings in the function. In the first dependent variate, variables' loadings vary from .67 to .85, resulting in the highly shared variance (.54). This indicates a high degree of intercorrelation among the dependent variables and suggests that all measures are representative of the effects. The dependent variable with the highest loading is "Novelty Seeking", followed by "Prestige Seeking" and "Thrills and Adventures". The first independent variate has the same pattern, with loadings ranging from .62 to .95. The independent variable with the highest loading on the independent variate is "Accommodation, Shopping, and Nightlife, etc.", followed by "Outdoor Recreational Activities" and "Convenience of Traveling".

Among the other three functions as indicated in Table 25, the dependent and independent variates have a quite different pattern, with either the dependent variable or the independent variable having a negative loading. For instance, the second pair indicates that F3_aff has a positive correlation with F3_cog but negative correlation with F6_cog. The third pair states that F2_aff is negatively correlated with F2_cog. The fourth pair reveals that, while F5_aff has a positive correlation with F1_cog, F6_aff has a negative correlation with F1_cog. It is understandable that the variates in canonical correlation are extracted only to maximize predictive objectives (Hair et al. 1998). The poor interpretability as reflected in the loadings, coupled with the low redundancy values, reinforce the low practical significance of the other three functions.

4.7 Impact of the Destination Images on Visitors' Inclined Travel Behavior

Multiple discriminant and logistic regression were used, respectively, to determine the impacts of the destination image dimensions (both cognitive and affective) on visitors' inclined travel behaviors such as number of visits, visiting purposes, and intention of staying overnight in Oklahoma.

4.7.1 Impact of Image Dimensions on Visitors' Number of Visits

Multiple discriminant analysis was performed to examine the image factors in terms of their impact on visitors' number of times and visiting purposes.

With regard to visitors' number of times, one significant discriminant function consisting of two cognitive image factors, "Cultural Attractions" and "Accommodation, Shopping, and Nightlife, etc.", was derived from the analysis (see Table 26).

$$Z = -3.022 + 2.094X_2 - 1.210X_5$$

Where,

X_2 = "Cultural Attractions";

X_5 = "Accommodation/shopping/nightlife"

Table 26 shows that this discriminant function has an eigenvalue of 0.105. The Wilk's lambda is 0.901, and the Chi-square is 15.957 at the significant level of 0.003. This indicates that Functions 1 through 2 are significant. However, since the second function is non-significant, the first function is used for interpreation. The canonical correlation of Function 1 is 0.308, indicating that about 9% of the variance could be explained by this function.

As for Function 1, two cognitive image dimensions are found to be significant in the model. However, discriminant loadings show that the dimension of "Accommodation,

Shopping, and Nightlife, etc.", is mainly loaded on Funtion 2 which is not statistically significant. Besdies, in Function 1, the dimension of "Cultural Attractions" has a positive relationship with the discriminant Z score, while the dimension of "Accommodation, Shopping, and Nightlife, etc." has a negative relationship with the Z score. The Discriminant weights further indicates that "Cultural Attractions" has more power in explaining the model. According to Hair et al. (1998), the interpretation of discriminant weights is analogous to the interpretation of Beta weight in regression analysis. Discriminant loadings have been used as a basis for interpreation.

Table 26. Impact of Destination Images on Visitors' Number of Visits – Multiple Discriminant

Independent variable: cognitive image dimensions

Function	**Eigenvalue**	**Canonical correlation**	**Function**	**Wilks' Lambda**	**Chi-square**	**Sig.**
1	0.105	.308	1 through 2	.901	15.957	.003
2	0.005	.069	2	.995	.722	.395

	Discriminant Loadings		**Discriminant Weights**	
	Function 1	**Function 2**	**Function 1**	**Function 2**
F2	.777	.629	1.162	.155
F5	-.132	.629	-.738	.911

Function	**Function coefficients**			**Functions at Group Centroids**		
	F2	**F5**	**(constant)**	**first time**	**2-3 times**	**Over 3 times**
1	2.094	-1.210	-3.022	-0.163	-0.027	0.781
2	.279	1.493	-6.401	-0.038	0.129	-0.029

Note: Classification results show 62.1% of original grouped cases correctly classified.

Group centroids were derived based on this discriminant function. Group centroids showed a discrepancy between visitors who visited Oklahoma for less than three times and those who visited Oklahoma for over three times. Also, the middle points

for classifying cases can be calculated. For instance, the middle point between the first-time group and the group for 2-3 times is (-0.163-0.027)/2 = -0.095 and the middle point between the group for 2-3 times and the group for over 3 times is (-0.027+0.781)/2 = 0.377. To understand how this function works in classifying potential cases, for instance, when both X2 and X5 equal 1, then Z = -3.022 + 2.094*1 –1.210*1 = -2.138, the case may most possibly belong to the first group, "first-time visitors". When both X2 and X5 equal 5, then Z = 1.398, the case may most possibly belong to the third group, "visitors for over three times."

4.7.2 Image Impact on Visitors' Purposes of Visit

Results showed that the affective image factor of "Prestige Seeking" was significantly related to visitors' purposes of visit (see Table 27). This function has an eigenvalue of 0.046. The function is as follows:

$$Z = -5.573 + 1.439X_4$$

Where,

X_4 = "Prestige Seeking"

Table 27. Impact of Destination Images on Visitors' Visiting purposes – Multiple Discriminat

Independent variable: affective image dimensions

Function	**Eigenvalue**	**Canonical correlation**	**Function**	**Wilks' Lambda**	**Chi-square**	**Sig.**
1	0.046	0.209	1	0.956	6.699	0.035

Function	**Function coefficients**		**Functions at Group Centroids**		
	F4	**(constant)**	**Leisure**	**VFR**	**Business**
1	1.439	-5.573	0.031	0.324	-0.340

Note: classification results show 60.2% o original grouped cases correctly classified.

Based on the discriminant function, group centroids are derived which are 0.031 for Leisure Group, 0.324 for VFR, and - 0.340 for business group. Group centroids reveal a significant difference among the three groups of visitors, i.e. visitors with leisure and recreational traveling purpose, those visiting friends and relatives, and business travelers. The middle points derived from the centroids are - 0.1545 which is a middle point between the two centroids for business group and leisure group, and 0.178 which is a middle point between the two centroids for leisure group and VFR group. For instance, if X4 = 3, then Z = -1.156, which is smaller than the middle point of - 0.1545, the case may most possibly belong to business group. If X4 = 4, then Z = 0.183, which is bigger than 0.178, this case may most possibly belong to VFR group.

4.7.3 Image Impact on Visitors' Intention of Staying Overnight in Oklahoma

The dependent variable is "will you spend at least one night in Oklahoma in this trip", which is a binary variable. Thus logistic regression is employed to run the data analysis. The dependent variable is the log of the odds of the probability that visitors "will spend at least one night in Oklahoma in this trip" versus "will not stay overnight in Oklahoma in this trip". Odds ratio refers to the comparison of the probability of an event happening to the probability of the event not happening, which is used as the dependent variable in the logistic regression (Hair et al., 1998: 242). The six cognitive image dimensions and the six affective image dimensions are treated as independent variables, respectively. The results of Logistic Regression analyses are illustrated in Tables 28 and 29.

As for the cognitive image's impact on visitors' intention of staying overnight (see Table 28), the omnibus test for the entire data shows that the overall model is significant for the cognitive image dimensions ($p \leq 0.002$). The Nagelkerke R square for the model with the cognitive dimensions is 0.093, meaning 9.3% of the variance can be explained by the cognitive image model.

Table 28 further indicates that there is a positive relationship between the cognitive image of Oklahoma as a location with "convenience of traveling" (F1) and Visitors' intention to stay overnight in Oklahoma ($B=0.903$; $p \leq 0.004$). Given the coefficient of the significant cognitive variable, the logistic regression model can be written as follows:

$$Z = -1.517 + 0.903X1$$

Where,

Z = log of the odds of the probability

X1 = "Convenience of Traveling"

Table 28. Impact of Cognitive Images on Visitors' Intention of Staying Overnight in Oklahoma – Logistic Regression Analyses

Predicting variables: cognitive image dimensions

-2 Log likelihood: 45.678, Cox & Snell R Square: 0.059, Nagelkerte R Square: 0.093

Dependent variables	Original value	Omnibus tests		Variables in the equation		
		Chi-square	Sig.	Variable	B	Sig.
Intention of Staying Overnight	1: Yes 0: No	9.447	.002	F1	.903	.004
				Constant	-1.517	.122

The meaning of the model is that, when there is a one-unit increase in the image dimension of "Convenience of Traveling," the log of the odds of the probability (Z) that the visitor "will stay overnight" versus "will not stay overnight", would increase by 0.903 units, by

holding other variables constant. This suggests that "convenience of traveling" has a positive impact on visitors' intention to stay overnight in Oklahoma. For instance, when X1 is 1 which means respondents' strong disagreement with the convenience of traveling in Oklahoma, Z is (-1.517 + 0.903*1) = -0.614; the probability of staying overnight in Oklahoma is $1/(1+e^{-z})$ = $1/(1+e^{0.614})$ = 35.12%. When X1 increases from 1 to 5 which means respondents' strong agreement with the convenience of traveling in Oklahoma, Z is (-1.517 + 0.903*5) = 2.998; the probability of the intention of staying overnight in Oklahoma will be $1/(1+e^{-z})$ = $1/(1+e^{-2.998})$ = 95.25%.

As for the affective image's impact on visitors' intention of staying overnight (see Table 29), the omnibus test for the entire data shows that the overall model is significant for the affective image dimensions ($p \leq 0.040$). The Nagelkerke R square for the affective dimensions is 0.045, meaning 4.5% of the variance can be explained by the affective image model.

Table 29 further indicates that visitors' intention to stay overnight has a positive relationship with the affective image of "novelty seeking" ($B=0.678$; $p \leq 0.042$). Given the coefficient of the significant affective variable, the logistic regression model can be written as follows:

$$Z = -1.061 + 0.678X2$$

Where,

Z = log of the odds of the probability

X2 = "Novelty Seeking"

Likewise, the meaning of the model is that when visitors' agreement with Oklahoma's "novelty seeking" (X2) increases from 1 to 5, the probability of visitors' intention of staying overnight in Oklahoma will increase from 40.49% to 91.12%.

Table 29. Impact of Cognitive Images on Visitors' Intention of Staying Overnight in Oklahoma – Logistic Regression Analyses

Predicting variables: Affective image dimensions

-2 Log likelihood: 136.341, Cox & Snell R Square: 0.027, Nagelkerte R Square: 0.045

Dependent variables	Original value	Omnibus tests		Variables in the equation		
		Chi-square	Sig.	Variable	B	Sig.
Intention of Staying Overnight	1: Yes 0: No	4.234	.040	F2 Constant	.678 -1.061	.042 .415

4.7.4 Relationship between Destination Image Dimensions and Visitors' Inclined Travel Behaviors

Hypothesis 6 proposes that destination images significantly affect tourists' inclined travel behavior. The null and alternative hypotheses are stated as follows:

Ho_6: Destination images have no significant influence in predicting tourists' inclined travel behavior;

Ha_6: Destination images have significant influence in predicting tourists' inclined travel behavior.

Based on the results of the above multiple discriminant and logistic regression analyses, the coefficients for the images of Oklahoma are found to be significantly different from zero in influencing visitors' inclined behaviors, thus, the Hypothesis, which proposes that there is no significant relationship between the destination images and visitors' inclined travel behaviors, is rejected. In other words, destination image dimensions do play a significant role in affecting international visitors' inclined travel behavior.

4.8 Relationship between Image Dimensions and Visitors' Demographics and Travel Behaviors

The statistical techniques of MANOVA and ANOVA were employed to examine the relationship between destination image dimensions and visitors' demographics and travel characteristics such as visitors' genders, age groups, countries of residence, visiting times, purposes of visit, and sources of information. Some items such as number of visits, travel companions, and visiting purposes were recoded based on the nature of these items and the sub-sample size. For instance, considering respondents' country of residence, only the number of respondents from Canada and Germany has reached the minimum required sample size of 30, respectively. When comparing visitors' image differences based on visitors' country of residence, only these two countries' respondents were eligible for image comparisons. Likewise, in terms of visiting purposes, the original categories were regrouped and recoded into three new categories – "Leisure/vocation visitors", "VFR", and "Business/study" for the analyses of MANOVA and ANOVA.

The results of MANOVA and ANOVA are displayed in Tables 30-31, respectively.

MANOVA was used to assess whether an overall difference could be found between groups. The Wilks' Lambda, F value and P-value indicated that there are multivariate effects for the cognitive and affective image dimensions among groups with different demographics and travel characteristics (see Table 30). For instance, the F values of "Gender", "Age", and "Visiting Purposes" are all significant at the level of 0.05 and 0.10, respectively, showing that the multivariate effects of these treatments on the image dimensions are all significant.

Table 30 Tests of Multivariate Effects (MANOVA)

Effect	Dependent Variables	Wilk's Lambda	F	Sig.
Gender	Cognitive	.917	2.297	**.038 ***
	Affective	.941	1.600	.151
Age	Cognitive	.828	1.162	.272
	Affective	.797	1.403	**.098 ****
Country of Residence	Cognitive	.885	1.389	.233
	Affective	.883	1.476	.200
Visiting Purposes	Cognitive	.939	.761	.690
	Affective	.923	1.826	**.098 ****

* significant multivariate effect at the level of 0.05; ** significant multivariate effect at 0.10.

Based on the significant results of MANOVA, the univariate ANOVA tests are employed to address the individual issues for each dependent variable (see Table 31).

As shown in Table 31, the univariate ANOVA test reveals that the mean scores held by female visitors are generally higher than the male group, both for the cognitive image dimensions and affective image dimensions. Based on the F value and p-value, statistically significant difference is found for the cognitive image dimension of "Accommodation/shopping/nightlife."

In terms of the univariate effects by "age", significant difference is found for the affective image dimension of "Novelty Seeking". Post Hoc test using Bonferroni further reveals that significant image difference exists between Group Two (age 31 – 40) and Group Three (age 41 – 50), with Group Two's perception score lower than Group Three.

Since MANOVA did not show a significant multivariate effect with the treatment of "Country of Residence", further discussion on its univariate effects is suspended. In other words, no significant image differences are found between visitors of Canada and Germany.

Table 31. Tests of Between Subjects Effects (ANOVA)

	Cognitive Image Dimensions					
	Convenience of Traveling	**Cultural Attractions**	**Natural Attractions**	**Outdoor Recreational Activities**	**Accommodations, Shopping, and Nightlife, etc.**	**Local Attitudes**
Gender						
#1: Male	3.3036 (112)*	3.5593 (113)	3.8017 (115)	4.0087 (115)	3.5579 (114)	4.1737 (118)
#2: Female	3.4857 (63)	3.5429 (63)	3.8516 (62)	3.9674 (69)	3.7485 (66)	4.4167 (72)
F value	2.301	.004	1.264	.090	6.181	1.958
Sig.	.131	.951	.263	.765	**.014**	.164
Age Groups						
#1: 21-30	3.3000 (38)	3.3946 (37)	3.7211(38)	3.9079 (38)	3.6421 (38)	4.0270 (37)
#2: 31-40	3.2919 (37)	3.5143 (35)	3.7297(37)	3.9744 (39)	3.5000 (38)	4.1250 (40)
#3: 41-50	3.3368 (38)	3.5846 (39)	3.9897 (39)	4.1250 (42)	3.7100 (40)	4.3409 (44)
#4: 51-60	3.3824 (34)	3.5611 (36)	3.8353 (34)	3.9500 (35)	3.5722 (36)	4.3816 (38)
#5: over 60	3.5455 (22)	3.6667 (21)	3.7143 (21)	4.0200 (25)	3.7130 (23)	4.5833 (24)
F value	.485	.1.044	1.601	1.135	.480	1.950
Sig.	.747	.387	.177	.342	.750	.105
Purposes of visit						
#1: leisure	3.4137 (102)	3.5449 (98)	3.8263 (99)	4.0425 (106)	3.6369 (103)	4.2290 (107)
#2: VFR	3.4897 (29)	3.6188 (32)	3.8581 (31)	3.9926 (34)	3.6867 (30)	4.4571 (35)
#3: business, etc	3.1243 (37)	3.5128 (39)	3.7385 (39)	3.8421 (38)	3.5385 (39)	4.0976 (41)
F value	2.845	.214	.921	2.106	1.115	1.225
Sig.	.061	.807	.400	.125	.331	.297

* image dimension's mean of each subgroup, the number is the brackets is subgroup's sample size.

Table 31. Tests of Between Subjects Effects (ANOVA) (cont'd)

	Affective Image Dimensions					
	Relaxation	**Novelty Seeking**	**Sports, Keep-fit**	**Prestige Seeking**	**Safety, Benefit Seeking**	**Thrills, Adventures**
Gender						
#1: Male (n)	3.8739 (115)*	4.0378 (111)	3.3879 (116)	3.8083 (113)	3.5882 (119)	3.6228 (114)
#2: Female (n)	4.0725 (69)	4.0515 (66)	3.5051 (66)	3.9755 (68)	3.7590 (65)	3.8769 (65)
F value	1.889	.097	2.371	1.506	1.765	6.465
Sig.	.171	.756	..126	.222	.186	.012
Age						
#1: 21-30	3.9079 (38)	3.9778 (36)	3.3333 (38)	3.7870 (36)	3.6316 (38)	3.7368 (38)
#2: 31-40	3.7569 (36)	3.8500 (36)	3.4167 (36)	3.6296 (36)	3.5877 (38)	3.5833 (36)
#3: 41-50	3.9702 (42)	4.2650 (40)	3.5417 (40)	4.0569 (41)	3.7250 (40)	3.8095 (42)
#4: 51-60	3.8910 (39)	4.0333 (36)	3.3063 (37)	3.8829 (37)	3.5766 (37)	3.5490 (34)
#5: over 60	4.1667 (24)	4.0522 (23)	3.4306 (24)	3.8472 (24)	3.7681 (23)	3.7536 (23)
F value	1.430	2.198	.789	1.491	.653	1.162
Sig.	.227	**.072**	.534	.208	.625	.330
Post Hoc test (Bonferroni)		**#2<#3 (p≤.05)**				
Purposes of visit						
#1: leisure	4.0000 (108)	4.0500 (104)	3.4444 (105)	3.9061 (103)	3.6895 (102)	3.7195 (101)
#2: VFR	3.9632 (34)	4.0774 (31)	3.5556 (33)	4.0952 (35)	3.7315 (36)	3.8687 (33)
#3: business, etc	3.7500 (37)	3.9622 (37)	3.3162 (39)	3.6316 (38)	3.5083 (40)	3.4917 (40)
F value	.954	.551	1.815	3.426	.573	3.038
Sig.	.388	.577	.166	**.035**	.565	**.051**
Post Hoc test (Bonferroni)				**#2>#3 (p≤.033)**		**#2>#3 (p≤.068)**

* image dimension's mean of each subgroup, the number is the brackets is subgroup's sample size.

As for the groups of different visiting purposes, the F value is found to be significant with the affective image dimension of "Prestige Seeking". Further Post Hoc test with Bonferroni reveals that, significant image difference exists between Group Two, "VFR" and Group Three, Business and Study respondents, with Group Two's mean score significantly higher than Group Three.

Hypothesis 7 proposes that visitors with different demographic profiles or travel behaviors perceive destinations' image differently. The null and alternative hypotheses are stated as follows:

Ho_7: There is no significant difference in the perceived destination image dimensions between visitors with different demographic profiles and travel characteristics (e.g. gender, age, country of residence, and purposes of visit);

Ha_7: There is significant difference in the perceived destination image dimensions between visitors with different demographic profiles and travel characteristics (e.g. gender, age, country of residence, and purposes of visit).

Based on the above analyses, it is found that significant differences exist with some demographic profiles or travel behaviors; while no significant difference is found with other demographic profiles or travel characteristics. Thus, the null hypothesis which proposes that "there is no significant difference in the perceived destination image dimensions among visitors with different demographic profiles and travel characteristics" is partially rejected.

4.9 SUMMARY

This chapter presents the results of data analyses. Respondents' demographic profiles and travel characteristics are reported. Image attributes' mean ratings are

displayed. Independent samples t-test is conducted to examine the perceived difference of image attributes between first-time and repeat visitors, and family and non-family visitors. The underlying dimensions of Oklahoma's cognitive images and affective images are both explored by running factor analyses. Factors' summated scores are used for subsequent analyses such as regression analyses, canonical correlation analysis, multiple discriminant, logistic regression, MANOVA and one-way ANOVA. Regression analyses are performed to explore those image dimensions, to see which are relatively more important in determining Oklahoma's overall attractiveness. Canonical correlation analysis is used to test the relationship between image's two important components – cognitive and affective image dimensions. Multiple Discriminant and logistic regression analysis are employed to detect image's impact on visitors' inclined travel behaviors. MANOVA and ANOVA are used to examine the relationship between destination image dimensions and visitors' demographics and travel characteristics. Five hypotheses are tested with the above statistical techniques.

CHAPTER FIVE - DISCUSSIONS AND CONCLUSIONS

The purpose of this study is to study Oklahoma's images as perceived by international visitors from the perspectives of cognitive dimensions and affective dimensions. Specifically, the objectives of this study are to identify Oklahoma's distinct image attributes, explore the underlying dimensions of both cognitive and affective image attributes of Oklahoma and examine Oklahoma's most favorable images as an international travel destination, identify the important destination image constructs contributing to Oklahoma's overall attractiveness as an international travel destination, analyze and discuss the interrelationship between cognitive constructs and affective constructs, examine destination images' impacts on international visitors' inclined travel behavior, and examine image differences by visitors' demographic profiles and travel characteristics.

This chapter presents the discussions of the findings, implications and recommendations. First, the summary of the findings, discussions of the hypotheses testing and theoretical implications are reported; then, the practical recommendations are discussed. Finally, this chapter concludes with the limitation of the study and suggestions for future research.

5.1 Summary of Findings

This section reports and discusses the information about respondents' demographic profiles, inclined travel behaviors, destination image attributes, and the explored destination image dimensions.

5.1.1 Demographic Information

Approximately 61.5% respondents are males. In terms of age groups, except the age groups of 20 or below, and 61 or above, the other age group visitors are almost evenly distributed among the age groups of 21-30, 31-40, 41-50, and 51-60. It may be concluded that Oklahoma's attractions are fit for all different age groups; in other words, it remains unclear as to which age groups are more likely to visit Oklahoma. Moreover, the smaller frequencies of both younger visitors and older ones imply that Oklahoma may be less attractive in attracting either younger or older visitors, as compared to other age groups.

Almost one-third of the respondents were from Germany. The second country generating the most international visitors to Oklahoma was Canada. The number of these two countries' of respondents accounted for 45% of the total respondents. The number of respondents coming from each of other countries was less than 30, which was deemed not appropriate for conducting certain statistical data analysis.

In terms of respondents' current occupations, 31.1% of the total respondents had a professional or technical position; the second largest group were retired people or people who were not in the workforce (17.5%). The third group (13.0%) was teachers and students, indicating that Oklahoma is a destination for international teachers or students. Almost half of the respondents (49.7%) were within the combined family income range of $20,000 – 59,999.

5.1.2 Travel Characteristics and Inclined Travel Behaviors

In terms of visiting purposes, about 73.3% respondents were either on leisure travel and holidays, or visiting friends and relatives, indicating that international visitors

to Oklahoma were primarily pleasure visitors. About 39.6% respondents were traveling with their spouses and children. One implication for this is that Oklahoma should design some travel products which can appeal to families' needs. There were only a few organized tours to Oklahoma (6.7%), showing that there is room for improvement in further tapping the international tour operators.

Most of the respondents (79.8%) chose to stay overnight while traveling in Oklahoma. However, the majority of respondents (56.2%) planned to stay no more than two nights. Among the respondents who planned to stay overnight in Oklahoma, the majority (62.9%) chose to stay at hotels or motels.

As for visitors' source of information, the most frequent source was from "travel guides, books, and articles" (29.0%). The second and third major sources were from "friends and relatives" (21.5%) and "Internet" (20.4%), respectively. Furthermore, the "Welcome Centers" (14.5%) and "travel companies" (12.9%) also played an important role in distributing the travel-related information. Relatively, the role of TV or radio was quite limited (1.6%). In another study which was focused on the Taiwanese and Hong Kong travelers, Mok and Armstrong (1996) observed that visitors from Taiwan and Hong Kong considered travel agencies and word of mouth from friends and relatives as the most important sources of travel information. Tour guidebooks and word of mouth from friends and relatives are objective, informative, and a credible source of information (Mok and Armstrong, 1996).

This study showed that Internet (20.4%) was also frequently used among the visitors in planning a trip to a travel destination. This suggests that the Internet became a new source of travel information as important as travel brochures in the new millennium.

It is assumed that if destinations are not on the Web, they will be ignored by millions of people who now have Internet access. The Welcome Center's role was limited as compared with other sources, while it is understandable that visitors may have already searched for and found travel information about Oklahoma before departing from their own home country. It can be concluded that international visitors rely heavily on recommendations from tour guidebooks, family, friends and relatives, and the Internet as their major source of travel information.

As a whole, the majority of international visitors were middle-aged, male, traveling with family or friends for leisure purpose who obtained travel information from the travel books, relatives and friends, and Internet and who were mostly first-time visitors and planned to stay overnight in a hotel/motel in Oklahoma.

5.1.3 Oklahoma's Destination Images

Favorable Cognitive Images

Twenty-seven items were selected to assess Oklahoma's cognitive images. Descriptive analysis revealed six items with mean scores equal to or higher than 4 (1 means "strongly disagree", 5 means "strongly agree), which means that respondents agreed on the attractiveness of these items. The six items were "helpful local residents", "friendly local residents", "interesting native American history", "attractive pristine wilderness/fascinating wildlife", "a taste of the cowboy life and culture", and "beautiful state parks/lakes".

It indicated that items reflecting local people's attitudes were most highly perceived by the respondents. Other attributes among the top are those depicting Oklahoma's cultural and historical features such as Native American attractions, Indian

traditions and cowboy life style. This echoes the efforts made by OTRD to promote Oklahoma as a "Native America" state. Many previous destination studies have emphasized pleasure visitors' important concern of safety (Clow, Garretson and Kurtz, 1994, Knutson, 1988, Mok, Armstrong and Go, 1995); however, the item of safety was relatively not highly perceived by respondents (3.77). This might be partly due to the impact of the 9/11 incident, which has exerted a nation-wide effect.

The items receiving relatively lower mean scores (lower than 3.38) include "wonderful golfing", "moderate climate", "interesting nightlife", and "convenient local transportation". Oklahoma is not perceived to be attractive in terms of its nightlife. For instance, casino activities and gambling in Oklahoma are not legalized. Access to international airports is a vital component in the development of international travel markets (Prideaux, 2000). Oklahoma itself has no international gateways and is far from other large cosmopolitan cities. It is believed that destinations like Oklahoma need to invest in appropriate local transport infrastructure.

Six underlying dimensions were identified and used to depict Oklahoma's cognitive destination images. Based on the summated mean scores, it shows that the most favorable cognitive image dimension is "Local Attitudes" (4.27). This is a good indication that Oklahoma should take advantage of the friendly residents in promoting and developing international travel business. According to Echtner and Ritchie (1991), residents are often seen as part of the image elements and their support for the industry may affect the visitors' perceptions of the destination. The dimension of "Outdoor Recreational Activities" ranks second in terms of summated mean score (4.0), indicating respondents' positive agreement on its attractiveness. The other four dimensions'

summated mean scores are all below the value of 4, but all higher than the neutral value of 3, which means Oklahoma holds a moderately positive image in terms of the four dimensions. It is noticed that neither the dimension of "Cultural Attractions" nor the dimension of "Natural Attractions" has a summated mean score over the value of 4. These two dimensions, which were highlighted by OTRD in their promotional brochures or activities, were not highly perceived by international visitors. One implication for this is that Oklahoma's cultural and natural attractions need more efforts given in promotions. Otherwise, they might not be unique or distinctive when being compared to the same attractions of neighboring states. Stabler (1988), Gregory (1989) and Shaw and Williams (1994) suggested that places might project distinctive images as a reflection of the uniqueness of their specific local environment, culture and economy.

Favorable Affective Images

Twenty-two items were used to assess Oklahoma's affective image. The items with mean scores higher than 4 were "meet new people"(4.15), "enjoy something which is special"(4.04), "participate in activities that offer thrills"(4.04), "experience a different life style"(4.03), "enhance knowledge"(4.01), and "enjoy the relaxing atmosphere"(4.01). These items indicate that visitors are curious about the land of Oklahoma and hope to get a completely different experience from the visit to Oklahoma. In addition, Oklahoma is perceived to be a destination which provides a relaxing atmosphere.

The items with relatively lower mean scores include "obtain favorable prices/discounts"(3.55), "keep body fit"(3.53), "have fun, be entertained"(3.42), and "enjoy interesting sports activities"(3.39). Comparatively, international visitors had a low or moderate perception of Oklahoma in terms of its good for value, entertainment, and

sport attractions. Price is an important element in visitors' perception of destinations' image. According to the Texas Economic Development (2003), the major influencing factors for Canadian's vacation travel to the USA were safety and familiarity, and lower costs. In order to attract international visitors and exceed its strong competitors, Oklahoma tourism marketers should create a "good for value" image based on its own advantages.

Six affective dimensions were explored and used to delineate Oklahoma's affective images. It is found that the most favorable affective image dimension is "Novelty Seeking"(4.02), followed by "Relaxation"(3.94). The least favorable dimension is "Sports/Keep-fit" dimension (3.42), which can also be indicated by its corresponding attributes as discussed above. Generally, all affective image dimensions obtained a summated mean score over the neutral value of 3, indicating that international visitors also had a moderately favorable affective image of Oklahoma.

It is widely asserted that novelty plays a role in the decision-making processes that tourists utilize in their choice of destination. According to Hirschman (1984), novelty seeking focuses upon the consumption of unknown stimulation. It has been identified as a key motive for pleasure vacationers (Crompton, 1979b). Cohen (1974) went as far as to define a tourist as a "voluntary, temporary traveler, traveling in the expectation of pleasure from the novelty and change experienced on a relatively long and non-recurrent round trip" (p. 533). The result of this study, which indicates that visitors are novelty seekers, suggests that the Oklahoma Tourism and Recreation Department is on the right track in selecting and promoting its unique cultural attractions and peculiar natural landscape.

5.2 DISCUSSIONS

5.2.1 Perceived Image Differences between First-time and Repeat Visitors, and Family and Non-family Visitors

A comparison of the perceptions of Oklahoma's image attributes between the first-time and repeat visitors and between family and non-family visitors revealed statistically significant differences. For instance, repeat visitors tend to have a more favorable image than the first time visitors. The mean scores of repeat visitors' perceptions of most of the cognitive image attributes and affective image attributes were higher than those of first-time visitors'. The change in positive image among repeat visitors also conforms to previous image studies (Chon, 1987, Fakeye and Crompton, 1991, and Gartner 1986), indicating that the number of visits affects the perceived destination image. According to Fakeye and Cromption (1991), this suggests that repeat visitors perceived the "hidden quality", which is not obvious among first-time visitors. As the number of visits increases, travelers have better perceptions toward a travel destination.

In terms of perception difference between family and non-family travelers, one significant item is "experience tranquility". In other words, family travelers have a stronger feeling about Oklahoma as a location to enjoy its tranquil atmosphere. Family visitors also feel more relaxing and closer to nature in Oklahoma than do the non-family visitors. Family visitors have a stronger belief in Oklahoma's attractions such as interesting native American history and cowboy lifestyle. One implication of this finding is that Oklahoma's tourism marketing strategy in promoting Oklahoma as a native

American state is a more eligible strategy and should gain more positive response from the international market segment of family travelers. According to Brown (1990), childhood travel with family members positively influences an individual's attachment to a destination. Family trips help develop a sense of attachment to a destination (Lee, 2001). As a consequence, destination marketers need to present their family orientation by promoting, for example, festivals and other events that appeal to such markets.

5.2.2 Favorable versus Important Destination Images

In this study, the most important cognitive image determinant of Oklahoma's overall attractiveness is "Natural Attractions", while the factor with the highest summated scale is "Local attitudes". Likewise, the most important affective image dimension in predicting Oklahoma's overall attractiveness is "Relaxation"; however, the most favorable affective image factor is "Novelty Seeking". Neither of the most favorable cognitive and affective image components was found to match the most important factors in predicting Okalahoma's overall attractiveness. Hence the null hypothesis which proposes that the leading factors predicting Oklahoma's overall destination images are consistent with the most favorable image dimensions is rejected.

This result conforms to the study of Chen and Hsu (2000). They found that the significant factors assessing the overall destination attractiveness were not those highly rated destination attributes. Thus it further verifies that agreement ratings of destination attributes or dimensions may not be an accurate measurement of destination's overall images. For instance, suppose an international visitor gives the highest score to Oklahoma's "local residents' attitudes" when being asked about his/her agreement with Oklahoma's attractions. However, it might be Oklahoma's "natural attractions" which

has drawn him/her to visit Oklahoma. A practical implication for this is that local tourism marketers should not limit their promotional efforts and resources only to their most attractive dimensions; more important is that attention needs to be given to those "hidden" factors which mostly determine visitors' perception of destinations' overall attractiveness and therefore affect their visiting satisfaction.

Important Cognitive Image Dimensions Affecting the Overall Attractiveness

Crompton, Fakeye, and Lue (1992), pointed out that, "the utility of traditional image research to marketers is limited because, although the strengths and weaknesses of specific image attributes are identified, no guidance is offered as to which attributes should be used in promotion of the destination."

The Beta weights derived from the multiple regression analysis reveal the relative important cognitive image dimensions in contributing to Oklahoma's overall attractiveness. The important cognitive dimensions, in order of Beta weights, were "Natural Attractions", "Outdoor Recreational Activities," and "Cultural Attractions". The term nature-based tourism is generally applied to tourism activities depending on the use of natural resources which remain in a relatively undeveloped state, including scenery, topography, waterways, vegetation, wildlife, and cultural heritage (Ceballos-Lascurain, 1996: 19). Culture is an important factor shaping many tourist experiences. Authentic local culture, its history, institutions and customs can provide a rich experiential tapestry for the visitor (Cohen, 1988). Tourists will often visit more than one destination during a trip. They will typically experience a range of natural and cultural environments (Deng et al., 2002). As this study indicated, one implication for this is that the Oklahoman tourism marketers should endeavor to improve and promote the natural image dimension, since

this dimension has the most powerful impact in formulating international visitors' perception of Oklahoma's overall attractiveness. In addition, Oklahoma should promote both its cultural attractions and natural attractions in the international travel market, as both dimensions are important in leading to Oklahoma's overall attractiveness.

It is observed that the three other cognitive image dimensions, i.e. "Accommodation, Shopping, and Nightlife, etc.", "Convenience of Traveling," and "Local Attitudes" were not significant in predicting Oklahoma's overall attractiveness. Previous research comments that local people's attitudes are an important factor in attracting tourists but need to be handled moderately. On one hand, residents' negative reaction toward tourists could sharply decrease travelers' satisfaction and severely damage a community's image (Pearce 1980). On the other hand, tourists may have their vacation spoiled or enhanced by local attitudes (Knox 1982). Therefore, though the dimension of 'local attitude' does not remain in the predicting model, its role in supporting destination's overall image and maintaining tourists' satisfaction should not be ignored.

Important Affective Image Dimensions affecting the Overall Attractiveness

Multiple regression analysis helps identify another set of important affective image dimensions, which have significant impact in predicting Oklahoma's overall attractiveness. These affective image dimensions are, in order of importance, "Relaxation", "Novelty Seeking", and "Prestige Seeking." The implication for Oklahoma's tourism marketers is that Oklahoma's marketing and promotional campaigns should aim at improving Oklahoma's image, which more closely match visitors' needs of relaxation, novelty seeking, and prestige seeking.

The leading role of "Novelty Seeking" in predicting destination's overall attractiveness is consistent with the study of Yuan and McDonald (1990), in which novelty was ranked first as the primary motivation of the French and British. For instance, many Europeans and North Americans like to travel to remote areas to search for unspoiled natural and authentic cultural attractions (Cohen, 1982).

Affective images are visitors' internal or psychological feelings towards the perceived benefits of destination visitation; it has a close relationship to visitors' motivations. According to Gee, Choy, and Makens (1984), to market tourism services and destinations well, marketers must understand the motivating factors that lead to travel decisions and consumption behavior. Moreover, tourism marketers could use further insights into tourist motivation for the purposes of product development, service quality evaluation and image development (Fodness, 1994). The finding of the important affective image dimensions will help Oklahoma's tourism marketers in image development. For instance, Oklahoma's tourism marketers could create an image by describing Oklahoma as an ideal place for relaxation, or an image which could arouse potential visitors' curiosity of this land.

Image Determinants of Visitors' Likelihood of Return and Recommending to Others

Apart from analyzing the important image dimensions in predicting Oklahoma's overall attractiveness, multiple regression analyses also help to identify both cognitive and affective image determinants predicting visitors' likelihood of revisiting Oklahoma and recommending to others.

It is noticed that some image dimensions are important in predicting both visitors' likelihood of return and recommending to others. These image dimensions are "cultural

attractions", "Natural Attractions", "Outdoor-recreational Activities", and "relaxation". One implication for Oklahoma's tourism marketers is that, in order to achieve the marketing goal of retaining international visitors and expanding market share, Oklahoma's destination image design and promotional activities should focus on promoting these important image factors. Besides, in terms of cognitive image dimensions, the most important factor contributing to visitors' likelihood of return is "Outdoor-recreational Activities"; while the most important one for the likelihood of recommending to others is "Natural Attractions". In terms of affective image dimensions, the most important predictor of visitors' likelihood of return is "Novelty Seeking"; while the most important one for the likelihood of recommending to others is "relaxation". The practical implication of this finding is that destination marketers should adapt their marketing strategy in tapping different types of market segments, for instance, repeat visitors and new visitors may be attracted to visit Oklahoma by different image dimensions.

A summary table is presented below to demonstrate the relationship between Oklahoma's favorable image dimensions and important image dimensions affecting Oklahoma's overall attractiveness, visitors' likelihood of return and likelihood of recommendation (see Table 32).

It is found that both cognitive image dimensions and affective image dimensions are significant in predicting Oklahoma's overall attractiveness. The important cognitive dimensions include "Natural Attractions", "Outdoor Recreational Activities", and "Cultural Attractions". The leading affective dimensions are "Relaxation", "Novelty Seeking", and "Prestige Seeking". One question is: shall we use both leading cognitive

and affective image dimensions in assessing Oklahoma's overall attractiveness or image? Otherwise, which component, cognitive or affective, is better in describing Oklahoma's overall image? In other words, is there any relationship between the cognitive image dimensions and affective image dimensions? It is assumed that such an understanding will help tourism marketers in image creation, market positioning, and product development.

Table 32. Summary of Oklahoma's Favorable and Important Images

	Cognitive Images	Affective Images
Favorable Images	Local Attitudes Outdoor Recreational Activities Natural Attractions	Novelty Seeking Relaxation Prestige Seeking
Important Images on Oklahoma's Overall Attractiveness	Natural Attractions Outdoor Recreational Activities Cultural Attractions	Relaxation Novelty Seeking Prestige Seeking
Important Images on Visitors' Likelihood of Return	Outdoor-recreational Activities Natural Attractions Cultural Attractions Local Attitudes	Novelty Seeking Relaxation;
Important Images on Visitors' Likelihood of Recommendation	Natural Attractions Cultural Attractions Outdoor-recreational Activities	Relaxation Prestige Seeking

5.2.3 Interrelationship between Cognitive and Affective Images

As previously indicated, destination image researchers are inclined to use destination-related attributes to depict destination image. However, other scholars

suggested using psychological attributes to get a better view of the image. For instance, Williams et al. (1992) suggest that a place is probably best understood by focusing on its symbolic meaning rather than on the sum of its physical attributes. Similarly, Lee, Backman and Backman (1997) emphasize that the psychological attachment is important in understanding tourist behavior. According to Stabler (1988), "there is some controversy among researchers, whether the choice of tourist trip is person-determined or destination-determined. This uncertainty reflects lack of empirical evidence on the role information plays in the creation of image,"(pp. 134-135).

In this study, canonical correlation analysis is used to empirically examine the interrelationship between cognitive images and affective images. The objective of maximizing the variates for the correlation between them results in variates "optimized" not for interpretation, but instead for prediction (Hair et al. 1998: 458). Thus, the main purpose of applying canonical correlation here is not to interpret the nature of the interrelationship, but instead, to predict whether such interrelationship exists between the two sets of variables.

The result shows that the two sets of image dimensions are highly and significantly correlated. One set of variables is the six cognitive image dimensions; another set of variables is the six affective image dimensions. The redundancy index indicated that approximately 43.86% variance of the affective dimensions could be explained by the variations of the cognitive dimensions, while 44.15% variance of the cognitive dimensions could be accounted for by the variations of the affective dimensions. This indicates that respondents' perception of destinations' cognitive image can be largely reflected from their perception of destination's affective image, and vice

versa. The finding of this study was consistent with the study of Uysal and Jurowski (1994) who examined the nature and extent of the reciprocal relationship between push and pull factors for pleasure tourism and found that there is a relationship between these two sets of variables. Push factors include escape from personal/social pressures, social recognition/prestige, socialization/bonding, self-esteem, learning/discovery, regression, novelty/thrill, and distancing from crowds (Botha et al., 1999). Destinations' resources normally considered pull factors to include natural attractions, cultural resources, recreational activities, special events or festivals, and other entertainment opportunities (Kim and Lee, 2002). Literally, push factors are referring to the affective dimensions and pull factors are meaningfully similar to the cognitive dimensions.

One important implication of this empirical study is that, instead of using either cognitive image component or affective image component in describing destinations' image, tourism researchers and marketers should use both cognitive and affective dimensions to examine and identify destinations' overall image, since a cross-examination of both cognitive dimensions and affective dimensions can help researchers and marketers have a complete and better understanding of visitors' perceptions. For instance, in the context of this study, visitors' desire for "Novelty Seeking" and "Thrills and Adventures" in visiting Oklahoma may possibly be catered to by Oklahoma's destination attractions in "Outdoor Recreational Activities." According to Berlyne (1966), environments perceived as more novel are more apt to increase one's arousal and curiosity, than environments perceived as less novel. Similarly, Wahlers and Etzel (1985) found that vacationers who seek stimulation are more apt to prefer a destination

characterized as invigorating and/or innovative, while those avoiding stimulation prefer destinations described as structured and/or enriching.

5.2.4 Impact of Destination Images on Visitors' inclined Travel Behaviors

Multiple discriminant analysis, and logistic regression analysis were used to examine the impact of destination images on visitors' inclined travel behavior. According to Hair et al. (1999), to handle binary dependent variable analysis, logit's results are usually more reliable, explainable, and predictable in comparison with discriminant analysis. In addition, logit is robust to violation of the assumption of equality of the variance/covariance matrices.

Results showed that the coefficients for the images of Oklahoma are significantly different from zero in influencing visitors' inclined behaviors such as number of visits, intention of staying overnight, and visiting purposes. This finding provides empirical support to earlier studies stating that destination image can help marketers understand visitors' travel behavior intents (Chen and Hsu, 2000, Chon 1990, Fakeye and Crompton, 1991, Fishbein, 1967, Gartner 1996, Goodrich, 1978, and Hunt, 1975). For instance, Fishbein (1967) posited that behavioral intent is a consequence of attitudes. Fishbein (1967) suggested that evaluation of alternatives is influenced by consumer attitudes and beliefs, and that the ultimate purchase decision is a direct behavioral response to attitudes. Preferences for tourist destinations are enhanced by favorable perceptions that travelers hold about those destinations (Goodrich, 1978). Hunt (1975) noted, "Customers often buy products and services on the basis of their images as well as their inherent characteristics (p.2)."

Based on the findings of this study, one practical implication may be that, in order to increase visitors' number of visits to Oklahoma, Oklahoma's tourism marketers should upgrade and promote its cultural attractions. In other words, international visitors who hold a more favorable perception of Oklahoma's cultural attractions tend to visit Oklahoma for more times. In terms of visitors' intention to stay overnight in Oklahoma, the cognitive image dimension of "Traveling Condition" and the affective image dimension of "Novelty Seeking" are two important predictors. International visitors who have a higher positive perception of Oklahoma's attractiveness in "Traveling Conditions" and "Novelty Seeking" are more likely to stay overnight in Oklahoma. However, caution is needed when interpreting image's impacts on travel behaviors. According to Chon (1990), besides destination image, there are some aspects of marketing which are unique in tourism, such as the degree of family involvement, time and budget constraints in decision making, timing of decision making, and novelty seeking behavior in destination selection. These aspects need to be considered in predicting tourists' inclined travel behavior.

5.2.5 Relationship between Destination Images and Visitors' Demographics and Travel Characteristics

MANOVA and ANOVA were employed to examine the relationship between destination image dimensions and visitors' demographic profiles and travel characteristics. The significant F-value respectively shows that destination images may be perceived differently by visitors with different demographics and travel characteristics. The finding conforms to the results of previous studies (Mansfeld, 1992, Stabler, 1988).

Comparisons in perceptions of image differences by demographics indicate significant image differences in gender and age. The significant differences in the perceived image of Oklahoma support the result of previous studies stating that destination image is perceived differently by demographics (Baloglu and McCleary, 1996, Chon, 1990, and Fakeye and Crompton, 1991). This study indicates that female respondents had a more favorable perception of Oklahoma than male visitors in the cognitive image dimension of "Accommodation/shopping/nightlife."

As for visitors within different age groups, the findings indicate that visitors at age 41-50 perceived Oklahoma's "Novelty Seeking" image more favorably than younger visitors (age 30-41). Previous studies indicated that visitors within different age groups tend to differ in travel behavior. Furthermore, it is understandable that younger visitors are more likely to seek for fun, while the elders, especially those "empty nesters", are more interested in cultural activities. Stevens (1992) indicated that more affluent and older travelers are less price-sensitive. However, they place a greater importance on high quality travel experiences. Murphy (2001) stated that young and budget-minded tourists exhibit a preference for inexpensive accommodation, an emphasis on meeting other people (local and outsiders), and independently organized and flexible itinerary, longer rather than brief vacations, and emphasis on informal and participatory recreation activities. A better understanding of the relationship between destination images and age groups will help destination marketers design and promote different kinds of image and tour products packages to cater for people's different kinds of needs and wants.

The finding of this study further verifies that destination marketers need to design different kinds of destination image and attractions to appeal to visitors with different

demographic profiles and travel characteristics. Besides, this makes it possible to segment markets by appealing to specific nationalities or groups of tourists of differing socio-economic status, ages or interests (Stabler, 1988).

5.3 Practical Implications and Recommendations

Based on the results and findings of this study, practical implications and recommendations are proposed to Oklahoma Tourism and Recreation Department (OTRD) and related tourism marketers, in the hope of helping to improve the image of Oklahoma and its competitiveness in the context of the international travel market.

However, concerning the facts that the sample size and response rate were relatively small, and the structure of visitors from each country did not seem to be proportional to OTRD's previously recorded data; the study itself is very exploratory rather than generalizing to the whole population in terms of research findings, implications, as well as recommendations.

5.3.1 Have a Better Understanding of Oklahoma's Image

The friendliness of Oklahoma residents and its natural, cultural and historical attractions were highly appraised by international visitors. This is a good indication that Oklahoma should take advantage of its residents' support in promoting and developing international travel business. Plus, in terms of visitors' mental feelings towards Oklahoma, Oklahoma is a place which can satisfy visitors' curiosity in experiencing something special. OTRD may consider enriching its current image of "Native America" by adding "local residents' friendliness" and "Oklahoma's novel and exotic experience" as some other features of the core image, together with "cowboys and Indians."

Oklahoma's natural and cultural attractions as well as its appeal of tranquility and relaxation are the most important factors in determining visitors' perception of Oklahoma's overall attractiveness. However, these factors were not the most favorable dimensions as perceived by international visitors. Efforts need to be made to improve Oklahoma's culture-based attractions and also to make Oklahoma an ideal place of relaxation for international visitors. Other important images should also arouse OTRD tourism marketers' attention, such as Oklahoma's outdoor recreational activities, and tourists' mental needs for "Novelty Seeking" and "Prestige Seeking". The finding of this study suggests that in order to design and promote Oklahoma's image in a more effective way, both its destination-based attributes as well as visitors' psychological-feeling-based attributes should be highlighted.

5.3.2 Create a Unique, Must-see Destination Image

It is suggested that, in designing its destination image, OTRD marketers develop its image into a unique and must-see destination image. Kotler et al. (1999) stated that,

> "Even when competing offers look the same, buyers may perceive a difference based on company or brand images. Thus companies need to work to establish images that differentiate them from competitors. A company or brand image should convey a singular or distinctive message that communicates the product's major benefits and positioning," (p. 263).

Developing a strong and distinctive image requires creativity and hard work. In order to establish a unique image, i.e. native American image appealing to the international target market, OTRD should allocate more promotional budget and personnel resources in its international tourism development.

As for a destination marketing organization (DMO) like OTRD, efforts to promote destination tourism include the promotional techniques of media advertising,

familiarization trips, sales blitz and trade missions, travel writer tours, consumer shows, and direct mail, etc. However, every DMO needs to decide which technique to use due to limited budget and resources and in order to yield a most effective result.

All effective promotional activities should be associated with the creation of a most attractive destination image. Recommended promotional techniques include: 1) advertising in travel magazines or newspapers of those major targeted markets such as Canada, Germany, and the United Kingdom; 2) inviting influential travel writers, photographers and tour operators from the target markets to take press tours or familiarization trips in Oklahoma; 3) spreading Oklahoma's image through word of mouth by providing international visitors with valuable travel experience and services; and 4) participating in the major consumer travel shows held in the target markets such as Germany and Canada. It would be effective for OTRD to work directly with key international tour operators in the target market and with inbound receptive operators to encourage international travel to Oklahoma.

5.3.3 Customize Oklahoma's Tour Products in Each Different Market Segment

As today's visitors are becoming more sophisticated and demanding, visitors with different demographic background or traveling characteristics may perceive a different image of the same destination; therefore, destination marketers should customize their tour products and promotional campaigns when targeting different tourist market segments (Baloglu and Uysal, 1996). For example, novelty ranked first as the primary motivation of French and British visitors, but it was lower for Japanese tourists (Yuan and McDonald, 1990). Promotions of Oklahoma's unspoiled natural and authentic

cultural attractions tend to be more effective to French and British visitors than to Japanese visitors.

For instance, the majority of the international visitors came to visit Oklahoma for pleasure purposes. To attract this segment of tourists, OTRD should focus its marketing efforts on promoting its leisure attractions and facilities. Visitors' main sources of information were from travel books, friends and relatives and Internet. OTRD may consider improving its promotional effectiveness by inviting and hosting more well-known international travel writers to inspect Oklahoma's attractions and facilities. More Internet hyperlinks with other travel websites should be set up in the major tourist-generating countries such as Canada and Germany. Television and radio were not visitors' major information sources; therefore, OTRD may consider reinforcing financial input into other information sources by reducing its advertisement input in television and radio in foreign countries.

Besides, a successful destination marketing strategy should not only induce more first-time visitors, but also generate further repeat visits, and increase visitors' length of stay and expenditures. This study verifies that an appropriate creation and promotion of destination image can influence visitors' inclined travel behaviors. However, it cautions that more specific research needs to be done in terms of image's impact on travel behaviors when focusing on specific tourist-generating markets, since visitors from different markets may have different images and inclined travel behaviors when even visiting the same destination.

Moreover, this study emphasizes that visitors with different demographic backgrounds or travel characteristics may perceive Oklahoma's destination image

differently. Therefore, a more concrete design and creation of Oklahoma's destination image is required for OTRD researchers and marketers to analyze each target market and market segments separately. It is advised that further empirical evidence is needed in order to generate more concrete results and implications. "Given limited resources, service providers need to focus on those areas where true service shortcomings exist," (Brown, 1997: 66).

5.3.4 Take Part in SeeAmerica's Byways Campaigns

According to Travel Industries (2003b), a nation-wide new promotion called SeeAmerica's Byways, is designed to encourage Americans and international visitors to the U.S. to explore America's rural culture and heritage by driving the slower-paced, more scenic roadways of the country. The promotion will help make the traveling public aware of the historic, recreational, cultural and scenic significance of America's highway system. Betsy O'Rourke, senior vice president of Marketing & Communications of TIA, said, "we want Americans and our international friends to take the road less traveled, explore America's small towns and quaint communities and visit those American historic sites that are less crowded but just as interesting."

It seems that Oklahoma's image as a "Native American" state featured with abundant native culture and heritage as well as open-space rural landscape has a good fit for the campaign. Especially, Oklahoma boasts of its wonder of Route 66 with the elements of buildings, roadside attractions, people and history coming together in overwhelming abundance. It is suggested that Oklahoma take this opportunity and play an active role in the campaign in the international travel market.

5.4 Contributions of This Study

In summary, the contributions of this study are twofold, both academic and practical. In terms of academic contribution, currently, there is no empirical study assessing simultaneously the mutual impact of cognitive image and affective image on destination's overall attractiveness and inclined travel behavior. This study represents a first attempt to explore a theoretical framework on destination image study by incorporating both cognitive and affective image components. Besides, based on the theoretical discussions, this study also provides empirical evidence as how the two image components, i.e. cognitive and affective, are inter-correlated in formulating a more complex image, in determining destination's overall attractiveness and influencing visitors' inclined travel behaviors.

Findings of this study indicate that cognitive and affective image components are highly correlated and both play an important role in visitors' perception of destination image. Besides, understanding one image component is conducive to understanding the other. It is suggested that destination image study by including both cognitive and affective image components would be more complete and better than the traditional way of destination image studies which relied on either cognitive image dimensions or affective image dimensions. Since little empirical research on destination image has ever been made by simultaneously analyzing destination image's three components (i.e. cognitive, affective, conative), this study represents an initial effort and it is hoped that this study would provide a foundation for further research on the nature of destination image attributes, the structure of image components and interrelationship among these components and processes. Besides, the analyses of cognitive and affective image

components' impact on visitors' inclined behavior provide more empirical evidence to previous studies and theories on the same topic.

From a practical perspective, prior to this research, Oklahoma has rarely caught researchers' attention in exploring its destination images as perceived by international visitors. This study is a first attempt in examining its image and attraction features. Data collection from international visitors proved to be a big challenge for researchers. However, this study can serve as a foundation for further research in terms of Oklahoma's destination image study and promotions. The identification of Oklahoma's destination images would help local tourism marketers have a better understanding of its marketing position and therefore make appropriate marketing strategies in tapping the international travel market.

By applying destination's various image components, i.e. cognitive, affective, and conative in this destination image study, a more concrete, integrated and competitive destination image is identified. The identification of a complex destination image for Oklahoma will provide Oklahoma's destination marketers with a more concrete view of Oklahoma's image as perceived by international visitors. Such an understanding is helpful for the marketers to create and develop a more appropriate destination image, thus promoting its destination more effectively and efficiently.

5.5 Limitations of This Study

The following limitations need to be considered when interpreting and applying this study's findings.

Due to the limited resources and unknown population of international tourists visiting Oklahoma, a convenience sample survey was used which may not represent the population of visitors visiting the Welcome Centers. The 9/11 incident has led to a dramatic decrease of international visitors to Oklahoma; data collection at the Welcome Centers proved to be difficult. As a result, the sample size is small. Possible bias should be taken into account when interpreting this study's findings for practical significance. Besides, the response rate is also small. In case those who do not respond to the survey hold a different perception of Oklahoma's image, sample bias may exist; and the result may not have a good representation of the whole population. Possible representation bias may exist when the data is used for a generalization purpose.

The survey was conducted at the twelve Welcome Centers. The international visitors who entered Oklahoma from places other than the Welcome Centers were not covered in this study. The findings of this study may not apply to this part of visitors. Besides, the survey was conducted from August 1 to the end of November, 2001, visitors who visited Oklahoma at other seasons were not covered. Thus the findings may only represent the perceptions of those who visited Oklahoma during the period from August to November.

5.6 Suggestions for Future Study

As mentioned earlier, this study was based on a relatively small sample size. Future study is recommended to assess Oklahoma's image based on a larger sample size. For instance, given that tourists from different countries and cultures may have different perceptions, further research is recommended to focus on specific market segments and to identify their respective images.

Previous researchers have emphasized the importance in identifying destinations unique and distinctive image. A comparative study of Oklahoma's destination image with its major or potential competitors would be of practical significance and is highly recommended for Oklahoma's future image studies. According to Gregory (1989), each destination has a distinctive destination image. A more complex image study should include Oklahoma's major competitors in order to discover its unique destination image. Such a study will help Oklahoma's tourism marketers in identifying its relative competitiveness and planning a more effective marketing strategy to promote Oklahoma's international tourism.

In terms of image's impact on behavior intents, it is recommended that future image studies should link with other important factors. Hunt (1975) cautions that, "while image is probably a significant variable weighing upon the success of a region, its relative magnitude as compared to other feasibility factors such as access, intervening opportunities, population concentrations, physical facilities, and so forth is not known,"(P.1). According to Chon (1990), there are some aspects of marketing which are unique in tourism, such as the degree of family involvement, time and budget constraints

in decision making, timing of decision making, and novelty seeking behavior in destination selection. In future studies, these aspects need to be considered in determining its magnitude of predicting tourists' inclined travel behavior. Moreover, as suggested by Chen and Hsu (2000), further research should explore relationships between leading image attributes and other behavioral issues, such as travel motivation, tourists' attitude toward service quality, and trip satisfaction.

5.7 Summary

This study discusses research findings, hypotheses testing, and theoretical and practical implications. It also presents recommendations to Oklahoma's tourism marketers as to how to create a more appropriate and effective destination image in order to reinforce and strengthen its unique attractiveness and competitiveness in the international travel tourism market. Limitations of the study as well as suggestions for future studies are also proposed.

REFERENCES

Ahmed, Z. U. (1991), Marketing Your Community: Correcting a Negative Image, *Cornell Hotel and Restaurant Quarterly*, 31(4), 24-27.

Assael, H. (1984), *Consumer Behavior and Marketing Action*, Boston: Kent Publishing Co.

Baloglu, S. and D. Brinberg (1997), Affective Images of Tourism Destinations, *Journal of Travel Research*, 35 (4), 11-15.

Baloglu, S. and K. W. McCleary (1999), U. S. International Pleasure Travelers' Images of Four Mediterranean Destinations: A Comparison of Tourists and Nontourists, Journal of Travel Research, Vol. 38, November, 144-152.

Baloglu, S. and M. Uysal (1996), Market Segments of Push and Pull Motivations: A Canonical Correlation Approach, International Journal of Hospitality Management, In Press.

Babbie, E. (1992), *The Practice of Social Research,* Wadsworth, Belmont, CA, 133.

Belsley, D. A. (1991), Conditioning Diagnostics: Collinearity and Weak Data in Regression, New York: John Wiley and Sons.

Berlyne, D. E. (1966), Curiosity and Exploration, *Science,* 153, 25-33.

Botha, C., Crompton, J. L. and S. Kim (1999), Developing a Revised Competitive Position for Sun/Lost City, South Africa. *Journal of Travel Research* 37(4), 341-352.

Brown, G. (1990), Tourism and Place Identity. PhD dissertation in Recreation, Parks, and Tourism Science. Texas A & M University.

Brown, T. (1997), Using Norms to Improve the Interpretation of Service Quality Measures, *Journal of Services Marketing*, 11(1), 66-80.

Burns, A. C. & R. F. Bush (1995), *Marketing Research*, New Jersey: Prentice Hall.

Calantone, R. J., C. A. di Benedetto, A. Hakam, and D. C. Bojanic (1989), Multiple Miltinational Tourism Positioning Using Correspondence Analysis, Journal of Travel Research, 28, 25-32.

Ceballos-Lascurain, H., (1996), *Tourism, Ecotourism and Protected Areas*, IUCN – The World Conservation Union, Cambridge.

Chadee, D. D. and J. Mattsson (1996). An empirical assessment of customer satisfaction in tourism. *The Service Industries Journal*, 16(3): 305-320.

Chen, J. S. & C. H. C. Hsu (2000), Measurement of Korean Tourists' Perceived Images of Overseas Destinations, *Journal of Travel Research*, Vol. 38, May, 411-416.

Chen, P. & D. L Kerstetter (1999), International students' image of rural Pennsylvania as a travel destination, *Journal of Travel Research,* 37 (3), 256-266.

Chon, K. S. (1987), An Assessment of Image of Korea as a Tourism destination by American Tourists, *Hotel and Tourism Management Review*, 3, 155-170.

Chon, K. S. (1990), The Role of Destination Image in Tourism: A Review and Discussion, *Revue de Tourism*, 45(2), 2-10.

Chon, K. (1992). The Role of Destination Image in Tourism: An Extension. *The Tourist Review*, 1: 2-8.

Chon, K. S. and M. D. Olsen (1991), Functional and Symbolic Congruity Approaches to Consumer Satisfaction/Dissatisfaction in Tourism, *Journal of the International Academy of Hospitality Research*, 3, 2-20.

Chon, K. S., P. A. Weaver, and C. Y. Kim (1991), Marketing Your Community: Image Analysis in Norfolk, *Cornell Hotel and Restaurant Administration Quarterly*, (February), 31-37.

Churchill, G. A. Jr. (1996), Basic Marketing Research, 3rd ed., Orlando: the Dryden Press.

Clow, K. E., J. A. Garretson and D. J. Kurtz (1994), An Exploratory Study into the Purchase Decision Process Used by Leisure Travelers in Hotel Selection, *Journal of Hospitality & Leisure Marketing*, 2(4), 53-72.

Cohen, E. (1974), Who is a Tourist?. *Sociological Review*, 22, 527-533.

Cohen, E. (1982), Marginal Paradise: Bungalow Tourism on the Islands of Southern Thailand, Annals of Tourism Research, 9, 189-228.

Cohen, E. (1988), Authenticity and comodification in tourism. *Annals of Tourism Research* 15 2, pp. 371–386.

Cook, R. L. and K. W. McCleary (1983), Redefining Vacation Distances in Consumer Minds, *Journal of Travel Research*, 22(Fall), 31-34.

Crompton, J. L. (1979a), An Assessment of the Image of Mexico as a Vacation Destination and the Influence of Geographical Location upon that Image, *Journal of Travel Research,* 17, (Spring), 18-23.

Crompton, J. L. (1979b), Motivations for Pleasure Vacation, *Annals of Tourism Research,* 6(4), 408-424.

Crompton, J. L, P. C. Fakeye, & C. Lue (1992), Positioning: The example of the lower Rio Grande Valley in the winter long stay destination market, Journal of Travel Research, 31(2), 20-26.

Crotts, J. C. and J. V. Rekom (1994), Adding Psychological Value to Visitor Attractions, Parks & Recreation, (September), 99-105.

Danaher, P. J., and N. Arweiler (1996). "Customer Satisfaction in the Tourist Industry: A Case Study of Visitors to New Zealand." *Journal of Travel Research*, 34 (Summer): 89-93.

Dann, G. M. (1977), Anomie, Ego-Enhancement, and Tourism, *Annals of Tourism Research,* 4, 184-194.

Dann, G. M. S. (1996), Tourists Images of a Destination: An Alternative Analysis, *Journal of Travel and Tourism Marketing*, 5 1/2, 41-55.

Deng J., B. King, and T. Bauer (2002), Evaluating natural attractions for tourism, *Annals of Tourism Research*, 29(2), 422-438.

Dichter, E. (1985). What's in an Image, The Journal of Consumer Marketing, 2(Winter), 75-81.

Doggett, L. R. (2002), Tourism Role in a Changing Economy, ITA Tourism Industries, http://tinet.ita.doc.gov/about/index.html.

Driscoll, A., R. Lawson and B. Niven (1994), Measuring Tourists' Destination Perceptions, Annals of Tourism Research, 21(3), 499-511.

Echtner, C. M. and J. R. B. Ritchie (1991), The Meaning and Measurement of Destination Image, *The Journal of Tourism Studies,* Vol. 2, No.2, (December), 2-12.

Echtner, C. M. and J. R. B. Ritchie (1993), The Measurement of Destination Image: An Empirical Assessment, *Journal of Travel Research,* (Spring), 3-13.

Embacher, J. & F. Buttle (1989), A Repertory Grid Analysis of Austria's Image as a Summer Vacation Destination, *Journal of Travel Research,* Vol. 27, No.3, (Winter), 3-7.

Fakeye, P. C. and J. L. Crompton (1991), Image Differences Between Prospective, First-time, and repeat Tourists to the Lower Rio Grande Valley, *Journal of Travel Research*, 30(2), 10-16

Fesenmaier, D. and J, MacKay (1996), Deconstructing Destination Image Construction, *Revue du Tourisme*, 51(2), 37-43.

Fishbein, M. (1967), Attitudes and the Prediction of Behavior. *In* Readings in Attitude Theory and Measurement, M. Fishbein, ed., 477–491. New York: Wiley.

Fodness, D. (1990), Consumer Perceptions of Tourist Attractions, Journal of Travel Research, 28(4), 3-9.

Fodness, D. (1994), Measuring Tourist Motivation, *Annals of Tourism Research*, 21(3), 555-581.

Gallarza, M. G., I. G. Saura, and H. C. Garcia (2002), destination image Towards a Conceptual Framework, *Annals of Tourism Research*, 29(1), 56-78.

Gartner, W. C. (1989), Tourism Image: Attribute Measurement of State Tourism Products Using Multidimensional Scaling Techniques, *Journal of Travel Research,* Vol. 28, No.2, (Fall), 16-20.

Gartner, W. C. (1993), 'Image Formation Process', Journal of Travel and Tourism Marketing, 2: 199-212.

Gartner, W. C. (1996), *Tourism Development - Principles, Processes and Policies*, Van Nostrand Reinhold, 454-499.

Gee, C. Y., D. j. L. Choy, and J. C. Makens (1984), *The Travel Industry*, Westport: AVI.

Goodall, B. (1990), The Dynamics of Tourism Place Marketing, in *Marketing Tourism Places*, G. Ashworth and B. Goodall, eds., 259-279, London; New York: Routledge.

Goodrich, J. N. (1977), A New Approach to Image Analysis Through Multidimensional Scaling, *Journal of Travel Research*, 16(3), 3-7.

Goodrich, J. N. (1978), The relationship between Preferences for and Perceptions of Vacation Destinations: Application of a Choice Model, Journal of Travel Research, 17(Fall), 8-13.

Gregory, D. (1989), Area Differentiation and Post-Modern Human Geography, in *Horizons in Human Geography*, D. Gregory and R. Walford, eds., 67-96, New Jersey: Barnes and Noble.

Gunn, C. A. (1988), *Tourism Planning*, Second Edition, New York: Taylor and Francis.

Gunn, C. A. (1972), *Vacationscape: Designing Tourist Regions*, Austin: Bureau of Business Research, University of Texas.

Guthrie, J. and P. Gale (1991), Positioning Ski Areas, In: *New Horizons Conference Proceedings*, University of Calgary, Calgary, 551-569.

Haahti, A. J. (1986), Finland's Competitive Position as a Destination, Annals of Tourism Research, 13, 11-35.

Hair, F. Jr., R. E. Anderson, R. L. Tatham and W. C. Black (1998), *Multivariate Data Analysis with Readings*, 5th ed., Upper Saddle River, NJ: Prentice-Hall.

Haywood, K. (1989). Repeat Patronage: Cultivating Alliances with Customers. *International Journal of Hospitality Management* 7, pp. 225–237.

Hirschman, E. C. (1984), Experience Seeking: A Subjective Perspective of Consumption, *Journal of Business Research* 12, 115-136.

Hoover, K. (2003), Congress authorizes funds for U.S. tourism marketing campaign, *Business Journal*, retrieved from: http://sanantonio.bizjournals.com/sanantonio/stories/2003/03/10/smallb5.html, 4/15/2003.

Hunt, J. D. (1975), Image as a Factor in Tourism Development, *Journal of Travel Research*, 13(3), (Winter), 1-7.

Jayroe, J. (2001), A Message from Jane Jayroe, Tourism – Oklahoma's Newest Cash Crop, (trade brochure), Oklahoma Tourism and Recreation Department.

Kaiser, H. F. (1974), An Index of Factorial Simplicity, Psychometrika, 39, 31-36.

Kim, S. S. and C. K. Lee (2002), Push and Pull Relationships, Annals of Tourism Research, 29(1), 257-260.

Kinnear, T. C. and J. R. Taylor (1987), *Marketing Research*, New York: McGraw – Hill, 307 – 326.

Knox, J. M. (1982), Resident – Visitor Interaction: A Review of the Literature and General Policy Alternatives in the Impact of Tourism Development in the Pacific, F. Rajotte, ed., 76-107, Petterborough, Ontario: Environmental Resources Study Program, Trent University.

Knutson, B. J. (1988), Frequent Travelers: Making them Happy and Bringing them Back, *The Cornell Hotel and Restaurant Administration Quarterly*, (May), 83-87.

Ko, D. & S. Park (2000), Five Aspects of Tourism Image: A Review, *International Journal of Tourism Sciences*, Vol. 1, No. 1, 79-92.

Kotler, P., J. Bowen & J. Makens (1999), *Marketing for Hospitality and Tourism*, second edition, NJ: Prentice Hall, Inc. 665.

Kozak, M. and M Rimmington (2000). Tourist satisfaction with Mallorca, Spain, as an offseason holiday destination. *Journal of travel Research*, 38(2): 260-269.

Lee, C., Backman, K. and Backman, S., (1997). *Understanding Antecedents of Repeat Visitation and Tourists' Loyalty to a Resort Destination Proceedings of the 1997 Travel and Tourism Research Association Annual Conference*, TTRA, Boulder, CO.

Lee, C. C. (2001), Predicting Tourist Attachment to Destinations, Annals of Tourism Research, 28(1), 229-232.

Lew, A. A. (1987), A Framework of Tourist Attraction Research, *Annals of Tourism Research, Vol. 14*, 553-575.

Lewis, R. C. (1984), Getting the Most from Marketing Research, Part IV: Isolating Differences in Hotel Attributes, *The Cornell Hotel and Restaurant Administration Quarterly,* Vol.25(3), (November), 64-77.

Lewis, R. C. (1985), Getting the Most from Marketing Research, Part V: Predicting Hotel Choice: The Factors Underlying Perception, *The Cornell Hotel and Restaurant Administration Quarterly,* (February), 82-96.

Mansfeld, U. (1992). Tourism: Toward a Behavioral Approach. Oxford: Pergamon Press.

Marks, K. (2002), Travel and Tourism, http://www.otrd.state.ok.us/travel_and tourism.htm, 1/11/2002.

Milman, A. and A. Pizam (1995), The Role of Awareness and Familiarity with a Destination: the Central Florida Case, *Journal of Travel Research*, 35 (Winter), 21-27.

Mok, C. and R. W. Armstrong (1996), Source of Information Used by Hong Kong and Taiwanese Leisure Travelers, *Australian Journal of Hospitality management*, 3(1), 31-35.

Mok, C., R. W. Armstrong, and F. M. Go (1995), Taiwanese Traveler's Perception of Leisure Destination Attributes, *Australian Journal of Hospitality Management*, 2(1), 17-22.

Murphy, L. (2001), Exploring social interactions of backpackers, Annals of Tourism Research, 28(1), pp.50-67.

Nunnally, J. C. (1978), Psychometric Theory, New York: McGraw-Hill.

Nunnally, J. C. & Bernstein, I. H. (1994), Psychometric Theory, 3rd ed., New York: McGraw-Hill.

Oklahoma International Congress (2003), Preparing Oklahoma for Global Competitiveness in the 21st Century, retrieved from: http://domino1.odoc.state.ok.us/newhome/internat.nsf/d51fddd2e7c2a2998625670f006e0924/beae6d79b0ff241c862568b200723a80/$FILE/Oklahoma%20International%20Strategic%20Plan.pdf, 05/11/2003.

OTRD (2001), International Tourists to Oklahoma Escalate in 2000, *retrieved from*: http://lw11fd.law11.hotmail.msn.com/cgi...4426.21&start=155608&len=222980&mfs=531, 1/22/2001.

OTRD (2003), How Can We Help You? The Oklahoma Tourism & Recreation Department Travel & Tourism Division, *retrieved from*: http:www.travelok.com/infocenter/tourism/help.asp, 4/15/2003.

Pearce, II J. A. (1980), Host Community Acceptance of Foreign Tourists Strategic Considerations, Annals of Tourism Research, 7(2), 224-233.

Pearce, P. L. (1982), Perceived Changes in Holiday Destinations, *Annals of Tourism Research,* Vol. 9, 145-164.

Phelps, A. (1986), Holiday Destination Image - The Problem of Assessment: An Example Developed in Menorca, *Tourism Management,* (September), 168-180.

Pike, S. (2002), Destination image analysis - a review of 142 papers from 1973 to 2000, *Tourism Management*, 23 (5), 541-549

Pizam, A., Y. Neumann, and A. Reichel (1978). "Dimensions of Tourist Satisfaction with a Destination." Annals of Tourism Research. 5: 314-22.

Prideaux, B. (2000), The role of the transport system in destination development, *Tourism Management*, 21(1), 53-63.

Qu, H., and L. Li (1997), The Characteristics and Satisfaction of Mainland Chinese Visitors to Hong Kong, *Journal of Travel Research*, 35(4), 37-41.

Qu, H., B. Ryan and R. Chu (2000), The Importance of Hotel Attributes in Contributing to Travelers' Satisfaction in the Hong Kong Hotel Industry, *Journal of Quality Assurance in Hospitality & Tourism*, 1(3), 65-83.

Reilly, M. D. (1990), Free Elicitation of Descriptive Adjectives for Tourism Image Assessment, *Journal of Travel Research,* Vol. 28, No. 4, (Spring), 21-26.

Schiffman, L. & L. Kanuk (1994), *Consumer Behavior,* Fifth edition, New Jersey: Prentice - Hall International, Inc.

Shaw, G. & A. M. Williams (1994), *Critical Issues in Tourism: A Geographical Perspective*, Oxford: Blackwell.

Sirgy, M. J. (1982), Self-image/product Image Congruity and Advertising Strategy, P*roceedings of the Academy of Marketing Science*, 5, 129-133.

Sirgy M. J. and C. Su (2000). Destination Image, Self-Congruity, and Travel Behavior: Toward an Integrative Model. *Journal of Travel Research*, 38: 340-352.

SPSS (1999), SPSS Base 9.0: *Applications Guide*, New Jersey: Prentice Hall.

Stabler, M. J. (1988), The Image of Destination Regions: Theoretical and Empirical Aspects, in *Marketing in the Tourism Industry: the Promotion of Destination Regions*, B. Goodall and G. Ashworth, eds., 133-161, London; New York: Croom Helm.

Steven, B. F. (1992), Price Value Perceptions of Travelers, *Journal of Travel Research*, 44-48.

Texas Economic Development (2003), Influencing Factors for Vacation Travel to the USA, retrieved from: http://www.tded.state.tx.us/tourism/, 3/14/2003.

TIA (2002), Overseas Tourists to Select U.S. States and Territories 2002-1999 (Ranked by 2000 Market Share), ITA Tourism Industries, retrieved from: http://www.tinet.ita.doc.gov/view/f-2000-45-540/index.html?ti_cart_cookie=20020123.165834.07333, 1/23/2002.

TIA (2003a), The United States International Travel Industry – Key Facts About Inbound Tourism, retrieved from:

http://tinet.ita.doc.gov/analysis/keyfacts2000.html?ti_cart_cookie=20030510.212448.03080, 4/15/2003

TIA (2003b), SeeAmerica's Byways Campaign, retrieved from: http://www.tia.org/, 3/14/2003.

Travel and Tourism (2002), Overview of State Issues, http://www.lsb.state.ok.us/senate/Overv...f_State_Issues_2000/tourism_travel.html, 1/11/2002.

Uysal, M. and C. Jurowski (1994), An Empirical Testing of the Push and Pull Factors of Tourism Motivations, *Annals of Tourism Research,* 21(4), 844-846.

Wahlers, R. G. and Etzel, M. J. (1985), Vacation Preferences as a Manifestation of Optimal Stimulation and Lifestyle Experience. Journal of Leisure Research 17(4), 283-295.

Williams, D., Patterson, M. and Roggenbuck, J. (1992). Beyond the Commodity Metaphor: Examining Emotional and Symbolic Attachment to Place. *Leisure Science* 14, pp. 29–46

Woodside, A.G. and Lysonski, S. (1989). A General Model of Travel Destination Choice. *Journal of Travel Research* 27 4, pp. 8–14.

Yuan, S. and C. McDonald (1990), Motivational Determinants of International Pleasure Time, Journal of Travel Research, 24(1), 42-44.

Yau, O. H. M. and F.F. Chan (1990), Hong Kong as a Travel Destination in Southeast Asia: A Multidimensional Approach, *Tourism Management*, (June), 123-132.

APPENDIX 1. SURVEY GUIDELINE

GUIDELINES FOR CONDUCTING OKLAHOMA TOURISM SURVEY

Background of the Survey

As Oklahoma's travel and tourism industry is playing a more and more important role in generating employment, wages, and state and local tax revenues, the state is implementing various kinds of tourism marketing campaigns to increase awareness of Oklahoma as a travel destination in both domestic and international markets.

In order to understand how Oklahoma is perceived by international tourists, a survey will be conducted at the Welcome Centers. The information obtained would help Oklahoma's tourism authority in planning a comprehensive marketing plan and establishing a competitive market position.

Survey Orientation and Instructions

Description of the survey questionnaire for international market:

The questionnaire includes six sections:

- **Section I** asks about visitors' travel behavior, i.e. travel purpose, pattern, frequency of visits, and spending, etc;
- **Section II** investigates visitors' perceptions about Oklahoma's attractiveness/ images;
- **Section III** explores visitors' mental feeling of Oklahoma as a travel destination;
- **Section IV** determines Oklahoma's overall attractiveness/images; and
- **Section V** asks about visitors' demographic profiles

***Note: It is suggested that survey assistants read and understand the contents of questionnaire prior to distribution. There are four different language versions (i.e. English, German, French and Spanish) prepared for respondents' convenience, which are all the same in contents. It is up to international visitors as which language version they prefer.

Qualified respondents for international visitors:

Respondents should be:

- **International visitors** who visit the Welcome Centers. (International visitors refer to those who come from places out of the United States, including Canada and Mexico).
- Aged 18 years or over.
- Excluding domestic visitors.

Procedure of survey:

1. **Distributing questionnaires**: Questionnaires should be distributed to the respondents who visited the welcome centers.
2. **Sampling approach**: Every second visitor is to be invited to fill out questionnaire. In case of refusal, the next respondent immediately after the previous one is to be invited.
3. **Collecting questionnaire**: Upon respondents' completion of questionnaire, the survey assistant is to have a quick check of the questionnaire and make sure whether he/she has answered all the questions and has clearly indicated his/her 'Place of Residence' in Section V.

Answering questions possibly raised by respondents:

- How long does it take to complete the questionnaire?
  Approximately 9-10 minutes.
- Do I need to write my name on the questionnaire?
  No. Your participation is completely voluntary, anonymous, and will be kept strictly confidential.
- Do I have to answer all the questions?
  Yes, please try your best to answer all the questions.
- This is my first time to visit Oklahoma and I have no impression of Oklahoma yet.

  We are especially interested in understanding how first-time visitors think about our state, so please try to answer all the questions based on what you think of Oklahoma.
- What should I do if I cannot make up my mind as to which choice to check?

  Since your opinion is very important to this study, please do not leave it blank and just try to check whichever you think may best describe your opinion. There is no right or wrong answer.

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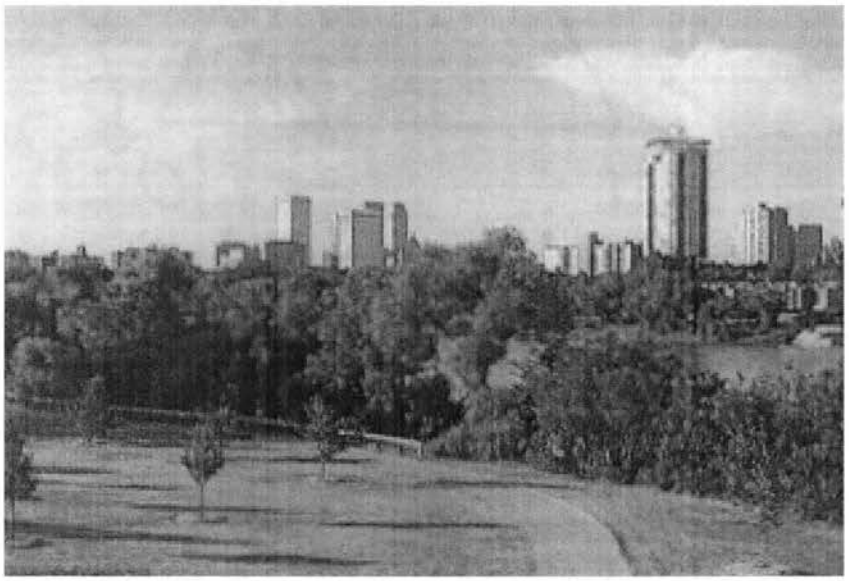
SURVEY OF
OKLAHOMA TOURISM
(International Visitors)



OSU OKLAHOMA STATE UNIVERSITY

Section I *Please indicate your travel behavior for this trip*:

1. What is your main purpose for this trip? *Please check (×) one only.*

❑ Leisure/recreation/holiday/sightseeing ❑ Study/teaching

❑ Convention/conference/trade show ❑ Visit friends/relatives

❑ Business/professional ❑ Other (*please specify*): _____

2. Whom are you traveling with on this trip? *Please check (×) one only.*

❑ spouse, without children ❑ relative(s) ❑ business associates

❑ spouse, with children ❑ friend(s) ❑ traveling by myself

3. Are you traveling with a tour group on this trip? ❑ Yes ❑ No

4. Will you spend at least one night in Oklahoma on this trip? ❑ Yes ❑ No

If yes,

4a. How many nights do you plan to stay in Oklahoma? Please specify: _____

4b. Where will you stay overnight in Oklahoma on this trip?
Please check (×) as many as apply.

❑ Hotel/motel ❑ Private home

❑ Friends/relatives ❑ Campgrounds

❑ Bed and Breakfast ❑ Other

5. Approximately how much will you spend on your trip to Oklahoma?

(Please give your answer in U.S. dollar): US$ _____

6. What specific attraction(s) do you plan to visit on this trip?

Please specify: _____

To be continued on next page ⇨

7. Where have you found the information about Oklahoma's tourism attractions?

❑ Travel company brochure ❑ Television or radio programs

❑ Internet ❑ Guide or travel books/articles

❑ Friends/relatives ❑ Other (please specify): _____

8. How many times have you visited Oklahoma including this trip?

❑ First time ❑ 2-3 times

❑ 4-5 times ❑ More than 5 times

9. Which states other than Oklahoma have you visited or will you plan to visit on this trip?

Please list: _____

Section II

*The following is a list of attributes assessing your perceptions of Oklahoma's destination image. Please give your opinion by circling the number which best describes your level of agreement with the statements listed. Please **CIRCLE** one number for each statement.*

Oklahoma is a place with:	*Strongly disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly agree*
1. interesting native American history	1	2	3	4	5
2. a taste of the cowboy life and culture	1	2	3	4	5
3. interesting museums	1	2	3	4	5
4. beautiful western arts and crafts	1	2	3	4	5
5. tranquil environment	1	2	3	4	5
6. attractive pristine wilderness/fascinating wildlife	1	2	3	4	5
7. interesting festivals/activities	1	2	3	4	5
8. spectacular scenery	1	2	3	4	5
9. a land of startling contrasts/unusual geological formations	1	2	3	4	5

... Continued from Section II

Oklahoma is a place with:	*Strongly disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly agree*
10. appealing American Indian activities	1	2	3	4	5
11. beautiful state parks/lakes	1	2	3	4	5
12. unspoiled eco-systems	1	2	3	4	5
13. moderate climate	1	2	3	4	5
14. attractive country & western music	1	2	3	4	5
15. lots of recreational facilities/activities	1	2	3	4	5
16. friendly local residents	1	2	3	4	5
17. helpful local residents	1	2	3	4	5
18. wonderful golfing	1	2	3	4	5
19. alluring water activities, e.g. fishing, canoeing, camping wonderful golfing	1	2	3	4	5
20. adventurous activities, such as hunting, rock climbing	1	2	3	4	5
21. interesting nightlife	1	2	3	4	5
22. wide variety of accommodations	1	2	3	4	5
23. appetizing local food/cuisines	1	2	3	4	5
24. great variety of shopping goods	1	2	3	4	5
25. easy accessibility	1	2	3	4	5
26. convenient local transportation	1	2	3	4	5
27. moderate prices	1	2	3	4	5

To be continued on next page ⇨

Section III

*The following is a list of attributes reflecting your feelings about traveling in Oklahoma. Please give your opinion by circling the number which best describes your level of agreement with the statements listed. Please **CIRCLE** one number for each statement.*

Oklahoma is a place where I can:	*Strongly disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly agree*
1. enjoy the relaxing atmosphere	1	2	3	4	5
2. experience tranquility	1	2	3	4	5
3. get away from crowds of people	1	2	3	4	5
4. get close to nature	1	2	3	4	5
5. experience something unexpected or surprising	1	2	3	4	5
6. participate in activities that offer thrills	1	2	3	4	5
7. have a change from my daily routine	1	2	3	4	5
8. experience adventuresome activities	1	2	3	4	5
9. have fun, be entertained	1	2	3	4	5
10. keep body fit	1	2	3	4	5
11. enjoy interesting sports activities	1	2	3	4	5
12. travel safely	1	2	3	4	5
13. feel at home while away from home	1	2	3	4	5
14. meet new people	1	2	3	4	5
15. enhance knowledge	1	2	3	4	5
16. experience a different life style	1	2	3	4	5
17. visit where my friends have not been to	1	2	3	4	5
18. visit famous cultural/historical attractions	1	2	3	4	5

To be continued on next page ⇨

... Continued from Section III

Oklahoma is a place where I can:	*Strongly disagree*	*Disagree*	*Neutral*	*Agree*	*Strongly agree*
19. visit where many people would like to	1	2	3	4	5
20. obtain favorable prices/discounts	1	2	3	4	5
21. enjoy something which is special	1	2	3	4	5
22. buy something which is good for value	1	2	3	4	5

Section IV

1. Please indicate the likelihood of considering Oklahoma as a travel destination for your near future trips. *Please check (×) one only.*

Most unlikely	Unlikely	Not applicable	Likely	Most likely
❑	❑	❑	❑	❑

2. Would you recommend Oklahoma as a travel destination to your relatives and friends for their near future trips? *Please check (×) one only.*

Definitely no	No	Not applicable	Yes	Definitely yes
❑	❑	❑	❑	❑

Section V

Please give some information about yourself.

1. What is your gender ? ❑ Male ❑ Female

2. What is your age group?

❑ 20 years old or below ❑ 21 - 30 years old ❑ 31 - 40 years old

❑ 41 - 50 years old ❑ 51 - 60 years old ❑ 61 years old or above

To be continued on next page ⇨

3. What is your country of residence? *Please specify*: _____

4. What is your current occupation? *Please check (×) one only.*

- ❑ Manager/executive
- ❑ Clerical/Sales
- ❑ Professional/Technical
- ❑ Government/Military
- ❑ Student
- ❑ Craftsman/Mechanic /Factory worker
- ❑ Housewife
- ❑ Retired/not in workforce
- ❑ Other (*please specify*): _____

5. What is the total combined yearly income of all members of your household?

(please give your answer in US dollar).

- ❑ under $20,000
- ❑ $20,000-$39,999
- ❑ $40,000-$59,999
- ❑ $60,000-$79,999
- ❑ $80,000 and above

Thank you for your great help!

APPENDIX 3. IRB FORM

Oklahoma State University
Institutional Review Board

Protocol Expires: 5/27/03

Date: Tuesday, May 28, 2002 IRB Application No: ED02121

Proposal Title: IMAGE ANALYSIS OF OKLAHOMA AS AN INTERNATIONAL TRAVEL DESTINATION

Principal Investigator(s):

Suosheng Wang
210 HESW
Stillwater, OK 74078

Hailin Qu
210 HESW
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

VITA

Suosheng Wang

Candidate for the Degree of

Doctor of Philosophy

Dissertation: AN IMAGE STUDY OF OKLAHOMA AS AN INTERNATIONAL TRAVEL DESTINATION

Major field: Human Environmental Sciences

Biographical:

Personal Data: Born in Danyang, Jiangsu, P. R. China on November 19, 1965, the son of Chuan-guan Wang and Shuying Zhu. Married with Hong Yang in Beijing on December 24, 1990. One daughter, Aining Wang, born on March 12, 1996.

Education: Graduated from the Department of Tourism, Nankai University, Tianjin, P. R. China with a major in Tourism Management and a minor in English in June, 1987; Received Master's Degree of Hotel and Tourism Management from the School of Hotel and Tourism Management, Hong Kong Polytechnic University, Hong Kong, P.R. China in November 1998. Completed the requirements for the Doctor of Philosophy degree specialized in Hospitality Administration, at Oklahoma State University in December 2003.

Experience: Section Chief of the Department of Marketing and Promotion of China National Tourism Administration from 1987-1995; Deputy Director and Editor of the Foreign Language Editorial Department of China Travel and Tourism Press in 1998; Senior Manager of the Department of Marketing and Product Development of China International Travel Service Head Office from 1999-2000; Employed by Oklahoma State University, School of Hotel and Restaurant Administration as a research assistant from January 2001 to present.