

**Projected and Perceived Destination Images
of Qingdao, China**

by

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AUTHOR'S DECLARATION

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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ABSTRACT

The images of tourist destinations significantly influence travel choices. Accordingly, destination marketers make great efforts to inform their potential consumers about their destinations using deliberately designed projected images. This research focuses on a Chinese tourism destination, Qingdao, exploring the relationships between the images projected by Qingdao government agencies and those perceived by current visitors and by residents. It also examines the factors that influence the image formation of visitors and residents. Three sources of information are used in this research: promotional materials issued by the Qingdao municipal government and the Qingdao Tourism Administration, key informant interview transcripts and a questionnaires survey. The promotional materials were collected from the aforementioned agencies in May 2009. Key informant interviews were conducted in April and May 2009. Self-administered surveys of 578 visitors and 337 residents of Qingdao were administered throughout May and June 2009. The image construct was conceptualized as having three dimensions: cognitive, affective and overall images. The cognitive image attributes included seafood, scenery, beaches, local people, green space, special events, ethnic attractions, weather, squares, architecture, relaxing atmosphere, resorts, hygiene and cleanliness, cultural attractions, golf course, highway system, accommodation, public transport, shopping, fashion shows, value for money, transportation cost, nightlife, football games, airline schedules, and traffic congestion. The affective image attributes included arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressful.

Qualitative evaluation suggested greater congruence between the images projected by Qingdao government agencies and those perceived by visitors than quantitative correlation analysis. The projected images of Qingdao and images perceived by visitors were consistent in their emphases on certain image themes. However, the correlations between these two types of images suggested that the extent to which these image themes were emphasized differed. Similar results were found in the comparison between the images projected by Qingdao and those perceived by residents. Furthermore, most visitors and residents held positive images of Qingdao. Both similarities and differences were discovered in the cognitive, affective and overall images perceived by visitors and residents. Residents were generally more positive than

visitors in their cognitive and affective images.

It was found that sex, education, place of residence, and previous travel experience only significantly affected visitors' images of one or two attributes, while age, occupation, primary motivation, most important information source used and number of sources used significantly influenced visitors' images of between 5 and 8 attributes. Additionally, place attachment and importance of the 2008 Olympic Games were significantly positively correlated with most of the image attributes examined in this study, while importance of German Heritage and Qingdao International Beer Festival were significantly positively correlated with fewer attributes (8 and 6 attributes, respectively).

With regard to the factors influencing resident images, it was discovered that sex, education, age, occupation, length of residence, most important source used and number of sources used significantly affected residents' images to different degrees, ranging from 7 to 18 attributes. Furthermore, place attachment and the importance of German heritage, the 2008 Olympic Games and Qingdao International Beer Festival were significantly positively correlated with the majority of the image attributes examined in this research.

This study is one of very few that compares projected and perceived images although methodological challenges for undertaking such research remain. It is also innovative in that it encompasses both tourists' and residents' images. Very few such studies have been undertaken in China which has a massive domestic tourism industry and is a major player in international tourism.

Key Words: destination image, projected image, perceived image, motivation, travel experience, place attachment, socio-demographics, information sources

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Chapter 1 Introduction

1.1 Problem Statement

Since tourism is considered by many as an efficient vehicle for local economic development, tourism destinations have proliferated throughout the world over the past three decades, resulting in intensified competition among them for visitors (Page & Connell, 2006). In response, destination marketers have put significant efforts into developing effective strategies to enhance the competitiveness of their places. A primary strategy adopted by these marketers is to create an appealing destination image to inform the evaluations of potential consumers about the destination. The underlying rationale is that individuals' images of a destination have a significant influence on their travel choices (Ahmed, 1991; Hu & Ritchie, 1993; Milman & Pizan, 1995; Page & Connell, 2006; Sonmez & Sirakaya, 2002; Tasci & Gartner, 2007). If an individual has a strong and positive image about a destination, they are more likely to consider and choose this place when making travel decisions.

However, when implementing such a strategy, marketers of many destinations have encountered the problem that their elaborately created images have not made a deep impression on the minds of the target audience to affect their evaluations of the destination. One reason for this problem is that the image projected by the destination is only one or a part of the wide range of sources that come to the target consumers (Andreu, Bigne, & Cooper, 2000). When various information sources are available, sources that are not controlled by the destination (e.g., word-of-mouth, movies) can distort the influence of the images that are purposely propagated by the destination. Additionally, the formation of perceived images is

also conditioned by individuals' internal needs, motivations, prior knowledge of destinations, preferences and other personal characteristics (Beerli & Martin, 2004a). When the influence of these factors occurs, the projected image may fail to play a full part in affecting the images of target consumers about the place being promoted. In other words, the destination is possibly excluded from consumers' consideration for a visit; such a situation not only implies the failure of destination marketing, but it also indicates a waste of both human and financial investments.

To improve this situation, a primary task is to understand the relationship between supply- and demand-side images (Stabler, 1988). This involves the identification of any similarities and differences between the projected and perceived images that are associated with a destination. Similarities can hint at which components of the projected image are transmitted to, and accepted by, potential consumers as the basis for constructing their own images about that place. Marketers need to identify and use these image components to facilitate their destination marketing. The image differences, on the other hand, suggest what potential consumers dislike or do not know about the projected image components. Under such circumstances, marketers need to adjust the images that are promoted in accordance with the preferences of their target consumers, or enhance their promotional efforts to increase market awareness of what they intend to promote.

Another aspect of facilitating image transmission from supply to demand is to recognize the different images held by individuals (Stabler, 1988). This involves the identification of factors that influence image formation. When various influential factors (e.g., socio-demographic characteristics, motivations, information sources) regarding a destination are identified, marketers can implement different strategies that are tailored to a particular

market segment to make their image promotion more effective.

Research on destination image has been undertaken from two main perspectives: supply and demand. The majority of studies fall into the latter category, focusing on the images of a destination or several destinations perceived by individuals who are visitors or potential visitors. Compared to the demand-side image studies, less research investigates the supply-side projected image, although the number of such studies has increased in recent years. Overall, the supply-side image studies emphasize two aspects: (1) the role of certain information sources such as brochures, travel guides, postcards or websites in the marketing or publicizing of a destination (Choi, Lehto, & Morrison, 2007; Echtner, 2002; Echtner & Prasad, 2003; Getz & Sailor, 1993; Govers & Go, 2005; Molina & Esteban, 2006; Scarles, 2004; Schellhorn & Perkins, 2004; Wicks & Schuett, 1993), and (2) the ideology underlying the images projected by host government agencies (e.g., Bramwell & Rawding, 1996; Britton, 1979; Pitchford, 1995).

Despite the merits of the abovementioned demand- and supply-side image studies, some researchers (Andreu, Bigne, & Cooper, 2000; Ashworth & Goodall, 1988) claim that it is not enough to understand destination image emphasizing either side alone and that both sides should be taken into consideration concurrently. However, due to the methodological difficulties of comparing projected and perceived images, which usually are measured by qualitative and quantitative approaches, respectively, the number of such studies has been limited. Existing studies focus on testing whether a projected image is coherent with the perceived image, and identifying the gaps that exist between these two types of images (Andreu, Bigne, & Cooper, 2000; Govers and Go, 2004, 2005; Grosspietsch, 2004; Mackay,

1995; Stabler, 1988; Young, 1999, Zou, 2007). These studies suggest the degree to which the promoted image is transformed into consumers' images. Marketers can use this information (i.e., What is the image gap? What are the reasons for this gap?) to modify their strategies and to make the projected image more acceptable to the target audience. Given the importance of such research, additional studies are needed to facilitate marketing practice.

In addition to the lack of studies on the supply-demand image relationship, other issues also emerge from a review of literature. First, previous studies largely ignore the images held by local residents regarding the destination where they reside. This disregard impedes a comprehensive understanding of perceived images because residents are also potential consumers of the destination as long as they are involved in tourism activities and use recreational facilities within their home communities (Cowley, Spurr, Robins, & Woodside, 2004). Additionally, residents' images of a destination, as an information source, can influence potential visitors' images of that place through word-of-mouth (Gunn, 1972). Furthermore, residents themselves are an image element (Echtner & Ritchie, 1991) and their attitudes towards tourism and tourists can influence tourists' perceptions of a destination (Gallarza, Saura, & Garcia, 2002).

Place attachment, a significant predictor of tourism and leisure behaviours (Bricker & Kerstetter, 2000; Hammitt, Backlund, & Bixler, 2006; Ryan, 1995), is proposed to be closely related to, or the basis for, forming individuals' images about a destination (Carter, Dyer, & Sharma, 2007; Govers & Go, 2005; Molenaar, 1996, 2002; Ramshaw & Hinch, 2006). Some researchers (Baloglu, 1999; Henderson, 2003) point out that place attachment may influence image formation; however, there is a lack of research supporting this assertion. Given its

increasingly important role in the managerial paradigm of urban renewal and development (Williams & Vaske, 2003), an empirical study on its influence on the perceived image would benefit destination marketing practice and would add to the literature.

Image literature is dominated by studies undertaken in North America and Europe, while countries such as China and its cities have been less researched as a tourism destination. The current uneven geographical distribution of research efforts leads to an incomplete understanding of destination image because: (1) the images projected by different destinations are supposed to be different in order to reflect the local features (Bramwell & Rawding, 1996); (2) the objectives and strategies of marketing organizations vary between destinations; and (3) individuals' images are influenced by their cultural traditions, and people from different regions or countries have different understandings and interpretations of the same object (MacKay & Fesenmaier, 2000). For these reasons, a case study of Qingdao would add to knowledge regarding how a Chinese destination performs in its marketing practice and how individuals from different cultures (residents of Qingdao, non-resident Chinese, and foreigners) interpret the image of this place.

Lastly, marketers have been committed to exploring the distinctive features of their places and using them as main themes in their promoted images (Bramwell & Rawding, 1996; Chen, 2001; Mi, 2003; Sonmez & Sirakaya, 2002). These features/themes reflect the specific local culture and economy, and are crucial for destinations to make themselves stand out from competitors (Chen, 2001; Mi, 2003; Sonmez & Sirakaya, 2002). In this regard, knowing whether the main themes that are promoted by marketers are considered important by potential consumers in forming their image of a particular destination would contribute to place

marketing. A review of the promotional materials issued by Qingdao government agencies indicates that two themes, *ethnic attractions* and *special events*, have received attention; for this reason, the importance of these two themes in influencing the images of current visitors and residents regarding Qingdao will be examined.

1.2 Research Goal and Central Research Questions

The purpose of this study is to examine the relationships between the projected and perceived images associated with Qingdao, China, focusing specifically on the role of ethnic attractions and special events in influencing the perceived images. It will also explore whether information sources, socio-demographic characteristics, motivations, previous travel experience, and place attachment influence the images of current visitors and residents regarding Qingdao. Specifically, this study will address three central research questions:

Central Research Question 1: What are the relationships among the three images: the images projected by the Qingdao government agencies responsible for tourism marketing between 2006 and 2009, and those perceived by current visitors and by residents regarding Qingdao?

Central Research Question 2: Do socio-demographic characteristics, motivations, previous travel experience, information sources, place attachment, ethnic attractions, and special events influence the images of current visitors regarding Qingdao?

Central Research Question 3: Do socio-demographic characteristics, information sources, place attachment, ethnic attractions, and special events influence the images of residents regarding Qingdao?

1.3 The Organization of the Paper

Chapter 1 introduces the research background, research problem and the purpose of the study.

Chapter 2 provides a review of literature on the following topics: the projected and perceived destination images and their relationship and the factors (e.g., information sources, motivations)

that can influence image formation. Chapter 3 describes the methodology used in this study. It begins with an introduction of the research area and the research design, followed by a discussion of the methods used for data collection and analysis as well as the limitations to this study. Chapter 4 reports the results of the data analysis concerning the projected and perceived images of Qingdao and their relationship. Chapter 5 presents the results of the influence of certain factors (e.g., the importance of ethnic attractions, socio-demographic characteristics, and place attachment) on visitors' image formation. Chapter 6 examines the influence of certain factors (e.g., the importance of ethnic attractions, socio-demographic characteristics, and information sources) on residents' image formation. Chapter 7 discusses the major findings of this study and the implications of these findings. Chapter 8 summarizes the main points of this research and provides suggestions for future research.

Chapter 2 Literature Review

This chapter reviews the literature relating to the concept of destination image from a marketing perspective. The first section discusses both the supply- and demand-side destination images, the projected and perceived images, focusing on their respective definitions, types and components, and measurement methods. It also addresses the relationship between the projected and perceived images. The second section presents factors that influence the perceived image formation. These factors include socio-demographic characteristics (e.g. sex, age, education, occupation, place of residence, length of residence), motivations, previous travel experience, information sources, place attachment, importance of ethnic attractions, and importance of special events. The last section summarizes the literature being reviewed, including gaps in the literature.

2.1 Supply-side Destination Image: Projected Image

Information sources play an important role in influencing tourists' decision-making process (Molina & Esteban, 2006). Originating from various sources, projected images are those ideas and impressions created about a destination and available for people's consideration (Bramwell & Rawding, 1996; Kokosalakis, Bagnall, Selby, & Burns, 2006). Projected images reflect what the image producers expect people to see or experience at a destination (van Gorp & Beneker, 2007) and they can either be designed deliberately or emerge without conscious planning (Andreu, Bigne, & Cooper, 2000).

2.1.1 Image Types

Kozma and Ashworth (1993) identified two types of projected images: intentional and unintentional. An intentional projected image is one that is created deliberately by destination agencies or organizations for marketing purposes (Andreu, Bigne, & Cooper, 2000). This type of image appears in tourism advertising materials (e.g., tourist brochures and TV programs designed to promote destinations) with simple, appealing pictures and slogans to showcase the uniqueness of a specific place (Bramwell & Rawding, 1996). As a result of its marketing orientation, the intentional projected image may not be an objective and realistic representation of a destination; rather, it is a subjective interpretation of a destination using recurring selected elements of that place to attract potential visitors (Albers & James, 1988). An unintentional projected image is an autonomously created image that is independent from destination marketers (Andreu, Bigne, & Cooper, 2000). This type of image contains information that is less marketing-oriented; it attracts people's attention through the display of experiences different from those of the individuals' daily lives (van Gorp & Beneker, 2007). As the unintentional projected image is shown in popular media forms (e.g., movies, television programs, news broadcasts, and travel guides), it has a high level of credibility and market penetration (Gartner, 1993).

Studies on intentional projected images largely emphasize their role in destination marketing (e.g., Bramwell & Rawding, 1996; Choi, Lehto, and Morrison, 2007; Dilley, 1986; Getz and Sailor, 1993, Molina & Esteban, 2006; Santos, 1998; Stabler, 1988; Wicks & Schuett, 1991; 1993). By and large, these studies acknowledge the influence of the intentional projected image on tourists' image formation and destination selection as well as the importance of the

demand-supply image relationship in marketing (Ashworth & Goodall, 1988). Molina and Esteban (2006) investigated the appropriateness of tourist brochures for tourists' needs and their effect on tourists' images and destination choice. The design of a set of brochures associated with eight Spanish destinations was evaluated by 446 respondents using structured questionnaires. The results of the factor analysis and logistic regression analysis indicated that only certain elements of brochures (e.g., interesting, pleasant) contributed to visitors' image formation or destination choice. They suggest that marketers should include practical information to help trip decision making or planning.

Another group of researchers have studied image representation of places in their socio-cultural contexts to identify underlying ideologies (e.g., Ateljevic & Doorne, 2002; Bandyopadhyay & Morais, 2005; Brannstrom & Neuman, 2009; Gibson & Davidson, 2004). Ateljevic and Doorne (2002), for example, examined image representation in promotional materials by comparing images marketed by the central government agency at the beginning and end of the 20th century. Using deconstruction, discourse analysis and content analysis, the authors scrutinized the image itself, its symbolic representation, and its historical, geographical and cultural contexts. The results indicated that tourism (re)imaging is a political process that mirrors and strengthens the dominant ideologies of the time.

A third group of researchers focuses on how place meanings are constructed or interpreted according to place identities (e.g., Carter, Dyer, & Sharma, 2007; Brennan-Horley, Connell, & Gibson, 2007; Chang & Huang, 2005; Knox, 2008; Warnaby & Medway, 2008). For instance, Carter, Dyer and Sharma (2007) studied residents' perceptions of the Sunshine coast of Australia in relation to the landscape change in the region and the relationship between

sense of place and place identity. The researchers found that current representations of place identity were not experienced by residents; the creation of place identity was a result of the globalizing force of development and involved social and economic geographies of power. They illustrated that local voices were displaced and disrupted during the process of place transformation and place identity construction.

Studies on the unintentional projected image focus mainly on its influence on various aspects of tourism such as tourist images, visitor experience and travel intentions (e.g., Beeton, 2001; Connell & Meyer, 2009; Frost, 2006; Hou, 2006; Hou, 2007; Lee, Scott, & Kim, 2008; Liou, 2010; Kim, Agrusa, Lee, & Chon, 2007; Kim & Richardson, 2003; Riley, Baker, & Doren, 1998; Riley & Doren, 1992; Tooke & Baker, 1996). A common finding among these studies is that the image projected through movies, television programs, or travel guides contributes to individuals' image formation of the destination, affects tourist behaviours and increases tourism arrivals. In a study on the impact of the historic film, the 2003 release *Ned Kelly*, on shaping tourists' perceived images and increasing tourism flows, Frost (2006) reported that historic films may reinforce individuals' images of the past created by other sources and, in turn, further influence individuals' images of the destination. The researcher also illustrated that historic films had a long-term rather than short-term effect on tourism.

Another research focus on unintentional projected images involves the frame or structure of image representational dynamics (e.g., Duncan & Duncan, 1992; Gilbert, 1999; Santos, 2004; Xiao & Mair, 2006). For example, Santos (2004) identified that two contradictory frames—traditional and contemporary—were used to portray the image of Portugal in American newspapers between 1996 and 2002. Similarly, Xiao and Mair (2006) reported that

the image of China characterized in major English newspapers between 1999 and 2003 presented a paradox, the changing versus unchanged, in the representational patterns.

2.1.2 Image Assessment

A review of the literature indicates that researchers typically use content analysis to examine projected images. According to Neuman (2003),

Content analysis is a technique for gathering and analyzing the content of text. The content refers to words, meanings, pictures, symbols, ideas, themes, or any message that can be communicated. The text is anything written, visual, or spoken that serves as a medium for communication. (p. 310).

As a commonly adopted technique in social research to analyze various media content, content analysis examines both the manifest and latent aspects of communication and allows for both quantitative and qualitative operations.

Quantitative content analysis typically involves a frequency analysis to discover how many times a letter, word, phrase, or symbol appears within a piece of text or what percentage of documents under investigation contains a certain theme (Babbie & Halley, 1994). In a study conducted by Choi, Lehto and Morrison (2007), the researchers examined the projected image of Macau through analyzing the contents of a group of Web sites including both text and visual information. They conducted an extensive online search to obtain sample Web sites, which were then categorized into five groups (i.e., the Macau Government Tourism Office, travel trade, travel magazines, travel guides, and travel “blogs”). The textual data were first analyzed to find the most frequently used words by the sub-categorized Web sites. Subsequently, the visual information was analyzed using 11 image themes that were developed on the basis of the results of textual data analysis and previous studies. These 11 themes were counted for their

frequencies of occurrence for the five groups of Web sites. The results indicate that the online images of Macau projected by different agencies varied due to their different communication objectives and targeted audience and due to the lack of communication between these agencies. These findings imply that the official projected image of Macau has not been successfully transmitted to the travel public, intermediaries and media.

Qualitative content analysis involves an elicitation of themes from any message (e.g., brochures and travel guides) being studied. With qualitative content analysis, a coding frame may or may not be used in order to allow the themes to emerge themselves. The procedures for analyzing the textual information are shown as follows (Daly, 2007; Hsieh & Shannon, 2005; Neuman & Robson, 2007):

- A small number of textual documents are reviewed to obtain an initial image of the data. Notes are taken to record impressions and thoughts of the researcher associated with the codes and themes that are to be used in the following steps.
- All documents are read through to achieve a sense of the whole.
- The data in the first document are coded line-by-line by using the exact words or phrases in the text or those created by the researcher. Properties of each code are defined and the relationships among codes are described. Meanwhile, notes are taken to record any theoretical ideas relating to the codes.
- When the initial coding for the second document is finished, the codes that emerged are compared with those obtained from the first document to identify any similarities, differences and general patterns. After the comparison, codes that have similar meanings are combined or reorganized by being assigned a new code. The comparison process is

continued until all textual documents are coded.

- The codes identified are grouped to generate the initial themes based on the ideas from the notes. These initial themes are then defined and categorized again to form a higher level of themes, namely main themes. In this way, the main themes and sub-themes of the projected images reflected by the textual data are obtained, and their properties are then defined.
- The derived themes and sub-themes are checked to ensure that they are applied properly with evidence.

A study by Xiao and Mair (2006) explored how images of China as a tourism destination were portrayed in 35 articles from 20 major English newspapers issued from 1999 to 2003. The researchers employed a qualitative content analysis to identify image patterns and categories. They found that the images of China projected by the chosen newspapers showed a paradox in representational patterns, with contrasting imageries (e.g., development vs. human rights) covering a wide range of aspects regarding Chinese life and society.

2.2 Demand-side Destination Image: Perceived Image

Perceived image is a mental construct or representation of a destination formed through the interaction between the projected image, personal characteristics, and external stimuli (Baloglu & McCleary, 1999a). Perceived image attracts the attention of tourism researchers due to its influence on decision-making behaviours and sales of tourism products (Jenkins, 1999). Studies of perceived images have been undertaken across a variety of research areas, including conceptualization, components and dimensions, formation processes, assessment, management policies for destination image, influence of image, and image change over time (Mi, 2003; Selby, 2004; Zou, 2007). The following summarizes the relevant literature

concerning image conceptualization and assessment in relation to perceived image components.

2.2.1 Image Conceptualization

As the basis of image research, the conceptualization of destination image was one of the research foci in the 1970s and 1980s. Numerous definitions have been proposed illustrating various components, dimensions and the formation process of the perceived image. Of all the components raised, the cognitive and affective ones have been widely accepted by researchers across different disciplines (e.g., Baloglu, 1997; Baloglu & Brinberg, 1997; Chon, 1991; Du & Wu, 2009; Hosany, Ekinci, & Uysal, 2006; Kim & Yoon, 2003; Lin, Morais, Kerstetter, & Hou, 2007; Naoi, 2003; Stern & Krakover, 1993; Vogt & Andereck, 2003; Walmsley & Young, 1998; Xiong, 2008; Zhang, Li & Chen, 2006). According to Baloglu and McCleary (1999a), the cognitive image refers to individuals' beliefs and knowledge about the attributes of a destination. These attributes could be such items as weather, landscape, transportation, food, recreational facilities, or attitudes of local people. The affective image refers to individuals' emotional evaluations about the strengths and weaknesses of a destination or its attributes. Individuals' feelings, such as relaxed, happy, sleepy or gloomy, belong to this affective image group. Although the cognitive and affective images are distinct, they are interrelated; the formation of the affective image depends on the cognitive image and is a function of it (Anand, Holbrook & Stephens, 1998; Baloglu & McCleary, 1999a; Gartner, 1993; Stern & Krakover, 1993).

While accepting these cognitive and affective dimensions, a number of researchers have further developed the image concept by adding other components. One group of researchers has proposed that an overall image is formed from the cognitive and affective evaluation of the destination attributes (Baloglu & McCleary, 1999a; Kneesel, Baloglu, & Millar, 2010; Mazursky & Jacoby, 1986; Morais, Kerstetter, & Hou, 2007; Rezende-Parker, Morrison, & Ismail, 2003; Sonmez & Sirakaya, 2002; Stepchenkova & Morrison, 2008; Stern & Krakover, 1993). They found that the cognitive image can directly impact the overall image and also indirectly influence it through the affective image. Stern and Krakover (1993) claimed that cognitive and affective images together produce an overall or compound image. This image, as Mazursky and Jacoby (1986) discovered, is obtained through an evaluation and integration of destination attributes.

Another group of researchers conceptualizes destination image as three notably different, but interrelated, components: cognitive, affective and conative (Gartner, 1993; Manstead, 1996; Pike & Ryan, 2004). The conative image, as Gartner (1993) defined it, is a behavioural component associated with decision making. It is the result of assessment during the cognitive and affective phases as well as a transition from the cognitive and affective images to a decision about whether the proposed destination is worth visiting. Tasci, Gartner and Cavusgil (2007) clarify the relationship among the cognitive, affective, overall, and conative images. They claim that the interaction of cognitive and affective images constructs a holistic/overall image. This leads to the formation of the conative image that, in turn, results in the process of decision making.

The cognitive and affective dimensions - and sometimes the overall dimension - have been widely employed in empirical image studies (e.g., Baloglu, 1997; Hosany, Ekinci, & Uysal, 2006; Kim & Yoon, 2003; Lin, Morais, Kerstetter, & Hou, 2007; Stern & Krakover, 1993; Vogt & Andereck, 2003; Walmsley & Young, 1998; Zhang, Li & Chen, 2006). However, some conceptual issues arise and the answers to the questions are often unclear. For example, the overall image is conceptualized as resulting from cognitive or affective images or a combination of them; however, it is unknown whether this image can readily be derived from the summation of individual image attributes.

Another influential effort that moves image studies forward was made by Echtner and Ritchie (1991, 1993). These researchers reviewed studies concerning tourist destination, brand, and store images from psychology, geography and marketing, and developed a three-dimensional framework to capture destination image: attribute-holistic, functional-psychological, and common-unique.

The *attribute-holistic* dimension means that destination image holds both the traditional attribute-based component and a total “gestalt” expression of a place that is built on the combination and interaction of destination attributes. The *functional-psychological* dimension indicates that destination characteristics range from directly observable or measurable attributes, such as landscape and weather, to intangible or less observable attributes, such as attitudes of the local people and safety. The *common-unique* dimension suggests that destinations not only have “common” functional and psychological features that enable them to be compared and rated but also that they possess functional and psychological “unique”

traits, events, or auras that differentiate one from another. The authors argued that these three dimensions are interrelated and cannot be understood in isolation.

Focusing particularly on information sources, Gunn (1972) proposed two levels of image formation: organic and induced. An organic image is formed from information sources that are not directly related to a destination. These sources are ostensibly unbiased, including word-of-mouth, news stories, documentaries, movies, schools, and non-commercial newspaper reports, magazine articles and television programs. An induced image results from exposure to promotional materials directly associated with a destination, such as tourist brochures, booklets and posters. The main difference between them is the level of control that a destination has on what is presented (Gartner, 1993). Gunn's work was the first that identified the various ways in which cognitive images are constructed in relation to information sources. Subsequently, information sources have been considered an important determinant in forming images.

Gartner (1993) further subdivided Gunn's categories into eight image formation agents, detailing the communication of information from the destination to the potential consumers. The first agent, Overt Induced I, consists of traditional advertising forms, such as television, radio, brochures, billboards and print media. It has a low credibility but high market penetration. Overt Induced II refers to information provided by tour operators, wholesalers and organizations that are involved in the travel decision-making process but are not directly related to a destination. It has high credibility, but low market penetration. Covert Induced I uses a spokesperson to increase the credibility of the information provided by the destination. The marketing penetration of this agent is high, although the level of credibility may be

compromised by the second-party endorsement. Covert Induced II refers to ostensibly unbiased sources from articles, reports or stories related to a destination. Its credibility outstrips the aforementioned agents and its market penetration is moderate. Autonomous image information agents include reports, documentaries, movies or news articles. Because they are independent from the destination marketers and are popular media forms, they have both a high level of credibility and market penetration. An Unsolicited Organic agent consists of unrequested information from people who have visited a destination. It possesses a relatively high credibility, but low market penetration due to the limited scope of personal communication. Solicited Organic agent involves information provided by individuals or groups who are knowledgeable about a destination without aiming to influence the potential consumers' decisions. This agent has high credibility, but low market penetration for the same reason as the Unsolicited Organic. Organic agent refers to the information obtained from previous travel to a destination or gathered from everyday sources, which give it the highest credibility. Gartner (1993) argued that the sequence of these eight agents presents a trend of destination control and audience credibility. From induced to autonomous to organic images, the degree of destination control of information decreases, while the degree of audience credibility increases. Gunn's and Gartner's works offer theoretical guidance for studying the role of information sources in image formation. Their studies also have significant implications for destinations in identifying appropriate means of image promotion.

The influence of information sources on image formation was also emphasized by Fakeye and Crompton (1991) who conceptualize image as a process of three stages: organic, induced and complex. This complex image refers to individuals' actual perceptions of a

particular destination after they have visited this place. The researchers linked the organic, induced and complex image to the informative, persuasive and reminding functions of marketing initiatives toward prospective, first-time and repeat visitors, respectively.

Phelps (1986) identified two images, primary and secondary, from her study of images of first-time and repeat visitors to Menorca, Spain. She contended that the primary image is formed based on each visitor's experience of a place. Her secondary image is a combination of Gunn's organic and induced images, referring to the first-time visitors' image which is developed based on external sources (Gartner, 1993).

Tapachai and Waryszak (2000) integrated the image concept of product marketing in terms of "exchange value" with the consumption value theory and proposed a beneficial image model for the analysis of tourist destination image. They conceptualize the beneficial image under five value dimensions:

1. Functional: consumers will choose a destination that acts best on salient physical and utilitarian attributes.
2. Social: consumers will choose a destination that attaches to the group to which they belong.
3. Emotional: consumers will choose a destination that could arouse their desired feelings.
4. Epistemic: consumers will choose a destination that could satisfy their pursuit of something new, different or fashionable.
5. Conditional: consumers will choose a destination that provides them with utility from its connection to an antecedent situation or context.

Based on a literature review of 65 tourist destination image studies done between 1971 and 1999, Gallarza, Saura, and Garcia (2002) developed a conceptual model of destination image that comprises four natures:

1. Complex: Complex nature suggests that the concept of image lacks consensus in terms of its nature (whether it is collective or uni-personal), its components, and how the components interact with each other.
2. Multiple: This nature reflects the multiplicity of both the components of destination image and the image formation process that involves a sequence of interrelated stages.
3. Relativistic: Image is simultaneously subjective, with images varying from person to person, and comparative, with images compared among different objects (or destinations).
4. Dynamic: Peoples' images change through time and space.

2.2.2 Image Assessment

The choice of methods used to assess the perceived image depends on the components of the image construct. Early researchers conceptualized image exclusively emphasizing its cognitive component and in their studies typically assessed a list of predetermined attributes using ranking scales. Goodrich (1978), for example, examined non-residents' images of Colorado, Montana, Utah and Wyoming in a survey mailed to 4,000 households selected from telephone directories. Structured questions and multiple-choice techniques were employed to determine respondents' impressions of the four destinations based on 18 image attributes. Chi-square tests and descriptive statistics were used to measure the images held by non-residents from various groups based on their geographical residence. Ahmed (1991) also used a mailed survey to investigate the image of Utah perceived by potential domestic visitors. He focused on identifying the importance level of attributes to guide destination marketing. Questionnaires containing 22 bipolar adjective Likert-type questions were sent to 6,000 randomly sampled households. Through factor analysis, parks, activity, culture, and nightlife were identified as the most salient attributes for Utah.

After a review of 15 destination image studies undertaken before the 1990s, Echtner and Ritchie (1991) found that researchers largely depend on using attribute-based structured methodologies for image assessment, leading to an incomplete understanding of the image construct that neglect the holistic and unique features of a destination. They suggested measuring destination image using a combination of structured and unstructured methodologies. They also conceptualize destination image using a three-dimensional framework: attribute-holistic, functional-psychological, and common-unique.

In a later study, Echtner and Ritchie (1993) empirically tested this framework using questionnaire surveys to examine the images of Jamaica, Japan, Kenya and Switzerland as perceived by 600 Canadian university students. The researchers started with eight focus groups to elicit image attributes. A content analysis was used to retrieve image attributes for developing scale items that were used to assess the attribute-based functional and psychological components of image. Three open-ended questions were also employed to explore the holistic and unique components of image. These questions are as follows (Echtner & Ritchie, p.5):

1. What images or characteristics come to mind when you think of XXX as a vacation destination?
2. How would you describe the atmosphere or mood that you would expect to experience while visiting XXX?
3. Please list any distinctive or unique tourist attractions that you can think of in XXX?

Frequency analysis and factor analysis were subsequently conducted to analyze these two groups of questions. Echtner and Ritchie's framework has been adopted by many researchers to examine different aspects of destination images (e.g., Choi, Chan, & Wu, 1999; Huang, Li, & Gao, 2002; Hui & Wan, 2003; Murphy, 1999; Obenour, Lengfelder, & Groves, 2005;

O'Leary & Deegan, 2003; Rezende-Parker, Morrison, & Ismail, 2003; Richards, 2006; Stepchenkova & Morrison, 2008).

Like Echtner and Ritchie (1991, 1993), some researchers have also promoted a comprehensive approach to studying destination image. Baloglu and Brinberg (1997), for example, introduced the affective space structure - arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing - developed in social psychology into a tourism destination context. They empirically tested this structure by studying the images of 11 Mediterranean countries as perceived by 60 undergraduates. The data were collected through a convenience sampling technique. Multidimensional scaling analysis was used to compare the affective images of the 11 destinations.

In addition to Echtner and Ritchie's three-dimensional framework, some researchers have promoted an integration of cognitive, affective, and overall dimensions to capture a complete overview of images. For example, Baloglu and McCleary (1999a) developed a path model to explore the determinants of destination image formation. Using a self-administered survey, they tested this model through assessing the pre-visit images of Turkey, Greece, Italy and Egypt perceived by 1,530 Americans. Fourteen items associated with the cognitive image of the four countries were evaluated on a 5-point Likert scale, ranging from offers very little, offers somewhat little, offers neither little nor much, offers somewhat much, to offers very much. The affective image was measured using four bipolar scales (i.e., arousing-sleepy, pleasant-unpleasant, exciting-gloomy, relaxing-distressing). The overall image was assessed using a 7-point anchor scale, ranging from very negative to very positive. A path analysis was conducted to determine whether there was a causal relationship between independent

variables (information sources, age, education, and travel motivation), intervening variables (cognitive and affective images), and a dependent variable (overall image). Similar studies that involve both cognitive and affective dimensions of image include Baloglu (2001), Baloglu and McCleary (1999b), Beerli and Martin (2004a, b), Kim and Yoon (2003), Son (2005), and Stern and Krakover (1993), etc.

The work by Tapachai and Waryszak (2000) provided new insights into both image conceptualization and measurement. Drawing on consumption value theory, they employed a beneficial image model with five value dimension - functional, social, emotional, epistemic, and conditional - to examine images of Thailand and the United States as perceived by 400 Australian undergraduates. A category-based rather than an attribute-based approach was employed. Respondents were asked to freely describe their images through depicting these countries under the aforementioned five dimensions to identify whether there was any congruence among a group of a destination's beneficial characteristics and respondents' prototype images.

The literature review indicates that structured techniques depending on scale questions have been predominant in the majority of studies. However, some researchers adopt methods used in other fields to support image studies. For example, Reilly (1990), in his study of the image of Montana, used the free elicitation technique borrowed from psychology and marketing to elicit image attributes. Questions such as, "What three words best describe the state of Montana as a destination for vacation or pleasure travel?" were asked to participants (p.22). Answers were coded into similar categories and then used to generate frequencies. This technique allows respondents to freely generate ideas on the salient characteristics of the

studied destination. It also provides an indication that a destination image is weak or lacking if respondents cannot provide answers.

Another attempt in image measurement is to introduce photo-elicitation to investigate the visual aspect of destination image. Botterill and Crompton (1987, 1996), in their study of tourist experience, combined photo-elicitation with the repertory grid technique to analyze personal holiday snapshots and brochures to elicit image constructs. A visitor was asked to talk about her Mexican vacation using six photos of scenes she took. Using the triad procedure required by the repertory grid technique, she was asked to consider how two of the photos were similar and how they differed from the third. The resulting construct indicates her image of Mexico based on the travel experience. The repertory grid technique used in this study allows researchers to explore how individuals make sense of the world with their own hypotheses and views.

A review of the literature indicates that researchers have employed various methods in assessing image since the 1970s, yet no standard methodology has emerged. In general, researchers have adopted two approaches: a structured, quantitative approach and an unstructured, qualitative approach (Pike, 2002) to study the image construct and its relevant factors. The commonly-used qualitative methods include focus groups, in-depth interviews, free elicitation and discussions with experts. These techniques are employed by researchers to elicit image attributes and assess the holistic image. In addition, survey instruments with scaled questions are widely used to examine cognitive and affective images. Statistical tests such as T-test, analysis of variance, path analysis, multiple regression analysis, Mann-Whitney *U* test, Krustal-Wallis test, chi-square test, and multidimensional scaling analysis are commonly

adopted in the data analysis.

2.3 Relationship between Projected and Perceived Images

A few early studies focused on the relationship between projected and perceived images. Ashworth and Goodall (1988) addressed the marketing considerations of tourist images and pointed out that a mismatch in demand- and supply-side images impedes the potential for a destination's tourism development. According to the researchers, a distorted image about a destination leads to a gap between fact and visitors' perceived images and, in turn, between visitors' holiday expectations and experiences. They stated that the more reality differs from perceived images, the more tourists are dissatisfied with the destination and the more likely they are to remove this destination from their future holiday consideration set.

Stabler (1988) examined the relationship between projected and perceived images, contrasting the services and facilities promoted by suppliers (in tourist brochures and guides) and those used by visitors. The researcher found that the image projected emphasized the diverse facilities and downplayed the traditional resort activities by assigning similar weight to multiple image themes in relation to these facilities. Conversely, visitors placed particular stress on traditional resort activities.

Young (1999) proposed and empirically tested a model of the tourism system of place construction when he studied the relationship between the place meaning that was promoted by the tourism industry and that which was consumed by visitors concerning the Daintree and Cape Tribulation area, Far North Queensland, Australia. Two subsystems exist in the model: the tourism industry's construction of place - place production, and the tourists' construction of place - place consumption. From the industry side, place producers create and convey

place meanings through different information sources as well as interpretation and marketing strategies. On the tourist side, place meanings are consumed through the mediation of consumer knowledge, preferences, motivations and previous experience. Where the two place constructions overlap is a “zone of consensus.” As shown in the results of this study, this “zone of consensus” includes scientific, aesthetic, remote/pristine and cultural meanings. Additionally, the “zone of producer surplus” indicates that the meanings promoted by the industry are not consumed by visitors, while the “zone of consumer surplus” describes those meanings that are consumed by visitors but not included in the industry’s image. The author suggested that place management should strive for maximizing the “zone of consensus.”

Govers and Go (2004) developed a model to show the relationship between cultural identity, projected image, commercialization, perceived image and tourism experience. According to the researchers, the projected image is produced based on the destination’s commercialized tourism products that are built on the true place identity. Through marketing efforts, this projected image is transmitted to the demand side and forms the basis for constructing the visitor’s perceived image, which is mediated by an individual’s identity, temporary environmental and situational influences - autonomous agents, and word-of-mouth.

A recent study by Grosspietsch (2006) examined the image of Rwanda perceived by visitors and projected by tour operators. Two separate questionnaires, which are mostly identical, were used to collect data. Both attribute-based and open-ended questions were included in the questionnaire and the data were analyzed through application of Excel 2002 using descriptive statistics (i.e., means and percentage). The researcher discovered that

visitors rated on attributes such as safety, diversity of the country's nature and the destination's cultural attractiveness more positively than tour operators. He pointed out that the image differences between the projected and perceived images were partly a result of the lack of knowledge of tour operators. Therefore, certain marketing strategies should be undertaken to catch up with the demands.

A study with a similar purpose by Andreu, Bigne and Cooper (2000) investigated the projected and perceived images of Spain in the British market and their relationship. The data for the projected image were derived from the promotional materials of advertising campaigns and were analyzed through document review. The results were shown in a table that listed the main features and the slogan of each selected campaign. The information for the perceived image was collected through questionnaire surveys and analyzed through cluster analysis and correspondence analysis. The authors claimed that certain differences existed between the projected and perceived images based on a qualitative evaluation of the relationship between these two types of images. The research further pointed out that the information sources used for constructing visitors' image cannot be controlled by the destination; marketers must pay more attention to consumer behaviour to understand the factors influencing destination choice rather than being concerned only with projected images.

2.4 Factors Influencing Image Formation

It is important for destinations to understanding factors that influence image formation to identify potential markets and to formulate targeted promotional strategies (Goodall, 1990). A review of literature indicates that information sources, socio-demographic characteristics,

travel motivations and previous travel experience are outstanding in influencing perceived image formation. These determinants, combined with place attachment, a critical element used to measure leisure behaviours and assumed to be closely related to image formation, are discussed below. Ethnic attractions and special events, two attributes that are supposed to be important to individuals' images of Qingdao, are also discussed here.

2.4.1 Information Sources

Information sources are materials that potential consumers encounter in relation to a destination (Baloglu & McCleary, 1999a). In Gunn's (1972) pioneer work, he proposed two image formation levels associated with information sources: organic and induced. The organic image is formed through an accumulation of non-tourism sources obtained from schools, word-of-mouth or non-commercial newspaper reports, magazine articles and television programs. It exists prior to access to commercial sources promoted by the destination and can be obtained without having been to the destination. The induced image is derived from promotional materials such as tourist brochures and/or through actual visitation. Gartner (1993) further developed Gunn's model by adding a third element, autonomous image formation agents. These autonomous sources include reports, documentaries, movies or news articles.

A number of researchers have examined the influence of information sources on perceived image formation. These researchers have discovered that the variety and type of information sources influence the formation of the cognitive rather than the affective image. Baloglu and McCleary (1999a), for example, confirmed and extended the results of early studies of Woodside and Lysonski (1989) and Gartner (1993) that the quantity and types of

information sources affect cognitive image formation. In their study, the researchers used a 4-point Likert scale to measure the level of importance regarding four information source categories (i.e., professional advice, word-of-mouth, advertisement, and books/movies/news) that contained nine sources (i.e., travel agents, brochures/travel guides, friends/family members, airlines, tour operator/company, advertisements, books/movies, articles/news, and direct mail from destination). Additionally, the effect of the number of sources used by respondents to construct their image of Turkey was also assessed. The researchers found that the variety of information sources used significantly influenced all three cognitive image factors, while the type of information sources only partly affected the cognitive image. Therefore, they suggested that destinations should endeavor to have their potential consumers use multiple information sources.

Beerli and Martin (2004a) examined the influence of the secondary source on pre-visit image formation and the effect of the primary source on both pre- and post-visit image formation regarding tourists to Lanzarote, Spain. The primary source refers to information obtained from actual visits to the destination. For the evaluation of this construct, the number of places of interest visited was used for both first-time and repeat visitors, and the number of previous visits was used for repeat visitors only. The secondary source includes three categories: organic (i.e., friends and family members), autonomous (i.e., guidebooks, news, articles, reports, documentaries, and travel programs), and induced (i.e., tourist brochures, tour operator brochures, mass-media advertising campaigns, travel agency staff, and the Internet). The level of importance of each source was evaluated using a 7-point Likert scale. The results showed that the number of places of interest visited significantly influenced some of the

cognitive image factors regarding both first-time and repeat visitors. Also, the number of previous visits significantly influenced some of the cognitive image factors associated with repeat visitors. In addition, most of the induced sources, including the Internet, had no significant effect on the different factors determining the cognitive image of first-timers, whereas organic and autonomous sources greatly impacted some of the factors of the cognitive image of first-time visitors.

Li, Pan, Zhang and Smith (2007) studied the potential impact of online information searches on image change. The researchers used both open-ended and scaled questions to distinguish the difference between baseline images (images obtained through passive and ongoing information gathering) and enhanced images (images formed depending on active and intentional online information searching) of China as perceived by 30 American college students. They found that the level and type of information search contributed to the respondents' affective and overall image changes rather than the cognitive image change. However, 67 percent of participants reported in their responses to the open-ended questions that their cognitive images about China changed after online information searches.

Frias, Rodriguez and Castaneda (2008) investigated the impact of the Internet as a new information source in comparison with travel agencies on tourists' pre-visit image as well as the moderating influence of message involvement and Internet experience. The researchers found that tourists' images became worse when they used the Internet and the travel agency together than when they used the travel agency solely. They also discovered that both the tourist's message involvement and Internet experience exerted a moderating effect on the image formation.

2.4.2 Socio-demographic Characteristics

Socio-demographic characteristics have been a common factor integrated into image studies to examine individuals' images of destinations (Beerli & Martin, 2004a). A number of researchers have found that socio-demographic characteristics (e.g., age, gender, education, occupation, household status, place of origin, distance, income, social class) affect individuals' image formation to different extents (e.g., Alhemoud & Armstrong, 1996; Baloglu & McCleary, 1999a; Beerli & Martin, 2004a; Crompton, 1979a; Hunt, 1975; Joppe, Martin, & Waalen, 2001; MacKay & Fesenmaier, 1997; Rittichainuwat, Qu, & Brown, 2001; Stern and Krakover, 1993; Walmsley & Jenkins, 1993; Zhang, Lu, and Zhang, 2006). Baloglu and McCleary (1999a), for example, studied the perceptions of Turkey, Greece, Italy and Egypt by Americans who intended to travel to these countries and found that age and education levels significantly influenced both the respondents' cognitive and affective images. When studying the perceived image of Lanzarote, Spain, by first-time and repeat visitors, Beerli and Martin (2004a) found that sex and country of origin had a significant influence on both the cognitive and affective images, while age, education and social status had a significant influence on either the cognitive or affective images. Walmsley and Jenkins (1993) reported that both age and gender contributed to the affective image perceived by residents of Gosford, Australia. Stern and Krakover (1993) discovered that education, age and gender had an effect on the British travelers' perceptions of Spain.

MacKay and Fesenmaier (2000) tested the role of culture in evaluating the image of Calgary, Canada by U.S. and Taiwanese visitors through photographic images. The authors demonstrated that both similarities and differences existed in their preferences. For instance,

both groups used water as an image dimension. However, Taiwanese participants considered water as a known factor, while Americans regarded water as an unknown.

Sdrali and Chazapi (2007) examined the effect of length of residence on residents' images of cultural tourism using Andros, Greece, as a case study. They found that permanent residents held a more positive attitude toward the contribution of cultural tourism to local development than temporary residents. Studies by Bachleitner and Zins (1999) and Brunt and Courtney (1999) also confirmed the influence of the length of residence on local residents' images of cultural tourism.

Some researchers have reached contradictory findings about the impacts of certain socio-demographic characteristics on perceived images. For example, Baloglu's (1997) study of West German travelers' image variation of the United States found no significant differences in the influence of education, gender and income on destination images. MacKay and Fesenmaier (1997) demonstrated that age and marital status had no significant effect on the images of visitors to Riding Mountain National Park in Manitoba. Smith and MacKay (2001) reported that no age-related differences were found among participants in their memory of pictures of tourism destinations.

2.4.3 Motivations

Motivations are considered to be important in any attempt to understand tourists' behaviour and travel choices (Baloglu & McCleary, 1999a; Beerli & Martin, 2004a). According to Oliver (1997) and Schiffman and Kanuk (2004), motivations are socio-psychological forces that originate from a need not satisfied and that stimulate an individual to participate in a specific

need-fulfilling activity. Due to the push role that motivations play in prompting actions, they are included in destination choice and image formation models as major influential factors by researchers such as Stabler (1988), Um (1993), and Um and Crompton (1990).

Some researchers have claimed that the affective image is to a great extent influenced by individuals' motivations resulting from their travel experience (Baloglu & Brinberg, 1997; Dann, 1996; Gartner, 1993). According to Baloglu and Brinberg (1997), the affective image is the value attached to the destination based on travel benefits sought by individuals. Individuals' images of the degree to which the destination provides the desired benefits (e.g., an adventure experience) influence how those individuals feel about or value the destination (the affective image) (Baloglu, 1997).

A number of researchers have confirmed that individuals' motivations influence their affective images towards a destination, although in varying degrees (e.g., Baloglu, 1997; Baloglu & McCleary, 1999a; Dann, 1996; Walmsley & Jenkins, 1993; Um & Crompton, 1990; San Martin & Rodriguez del Bosque, 2008). San Martin and Rodriguez del Bosque (2008), for example, studied the affective images of Cantabria, Spain as a holiday destination as perceived by 807 tourists who filled out questionnaire surveys. Fourteen motivations (e.g., relaxation and knowledge) were tested to discover their level of importance using a 7-point Likert scale, ranging from 1, low importance, to 7, high importance. The researchers demonstrated that a more favorable image can be achieved when the emotions elicited by the destination are consistent with individuals' motivations for visiting it.

Some researchers demonstrate the effect of motivations on overall and cognitive images. For example, Baloglu and McCleary (1999a) and Gartner (1993) claim that

motivations may influence the overall image in a direct or indirect way, as the affective image influences that image. Baloglu (1999) also provided evidence that motivations influenced cognitive rather than affective images in his study of the relationship between information sources, motivations, perceived images and visitation intention.

2.4.4 Previous Travel Experience

Consumer and tourist behaviour studies indicate that personal travel experience plays a role in future decision making in the form of a passive or internal information search (Crompton, Fakeye, & Lue, 1992; Evans & Berman, 1993; Um & Crompton, 1990). This information from previous travel is compared to the present experience to form repeat visitors' images (Schreyer et al., 1984). In some cases, past experiences (e.g., the amount of previous visitation) may have more influence than external sources on image formation because individuals tend to place more value on their experiences (Beerli & Martin, 2004a, b; Mazursky, 1989).

Past experience has been investigated and described as a factor influencing image modification by many researchers. Gunn states that potential visitors hold both organic and induced images of a destination until they visit the place. After their travel, a modified induced image, a complex image, is formed. To investigate this modified image resulting from previous experience, most researchers (e.g., Chon, 1991; Fakeye & Crompton, 1991; Fridgen, 1987; Hu & Ritchie, 1993; Milman & Pizan, 1995) evaluate the image difference between first-time and repeat visitors. Fakeye and Crompton (1991), for example, studied the images perceived by prospective, first-time and repeat visitors to the Lower Rio Grande Valley and found that the images held by non-visitors, the first-timers and repeaters were significantly different. The

researchers pointed out that the actual visitation to the destination set the criteria for the visitors' future evaluation of destination alternatives. Tasci (2007) used a longitudinal approach to analyze the images of first-time and non-visitors to Michigan through a secondary dataset provided by the Michigan Regional Travel Market Survey. The results indicated that people who had visited Michigan had a better overall image than people who had not.

Some researchers (Kaplanidou, 2007; Hu & Ritchie, 1993) have investigated the role of past travel experience in destination image formation using familiarity as an intermediate factor. They argue that past travel experience increases individuals' familiarity with a place. While familiarity positively affects individuals' images of a place (Baloglu, 2001), travel experience, therefore, logically influences individuals' images of the destination.

Although a number of researchers have confirmed the role of previous travel experience in influencing perceived images, some have different findings as to what component of the perceived image is influenced by previous travel (Fakeye & Crompton, 1991; Kaplanidou & Vogt, 2007). For example, Hu and Ritchie (1993) reported that individuals' previous visits positively affected specific attributes of the cognitive image such as destination attractiveness, while Baloglu and Brinberg (1997) discovered that prior visitation can lead to more affective images. Still other researchers (Chen & Kerstetter, 1999; Hunt, 1975; Young, 1999) reached the conclusion that previous visitation had no significant influence on destination image.

2.4.5 Place Attachment

Place attachment refers to the cognitive and emotional bonding between individuals and places. It has two components: place identity and place dependence (Hammit, Backlund, & Bixler,

2006). Place identity is “those dimensions of the self that define the individual’s personal identity in relation with the physical environment by means of a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioral tendency and skills relevant to this environment” (Proshansky, 1978, p. 155). In this regard, a place is not only a resource for fulfilling individuals’ behavioral or experiential goals, but it also is an essential part of oneself, leading to a strong emotional attachment to the place. Such a place could be a park for year-round family gatherings or be seen as a heritage site that generates abstract and symbolic meanings (Williams, Patterson, Roggenbuck & Watson, 1992). Place dependence refers to the functional attachment to a place due to its ability to provide desired experiences (Stokols & Shumaker, 1981). It emphasizes the value of a particular place, sometimes when compared to similar settings, in providing the amenities necessary for satisfying the needs of individuals based on the setting’s specificity, functionality, satisfaction and “goodness” for hiking, diving, etc (Kyle, Graefe, Manningm, & Bacon, 2003). A few researchers have found that this functional place attachment is positively and moderately correlated with place identity (Kyle, Graefe, Manning, & Bacon, 2003; 2004; Vaske & Kobrin, 2001; Williams, Anderson, McDonald, & Patterson, 1995; Williams & Vaske, 2003). Moore and Graefe (1994) also found that place dependence may lead to repeat visitation, which, in turn, entails place identity.

Studies on the relationship between destination image and place attachment focus on the influence of the former on the latter. Existing research has similar findings, i.e., that the cognitive image positively affects the formation of individuals’ attachment (place identity and place dependence) to a place (Chen, 2006; Hou, 2007; Lee, 2009; Wu, 2009). Chen (2006), for

example, discovered that visitors' cognitive images regarding Meinong Town, Taiwan, directly and positively influenced their affective images, and these affective images directly and positively influenced the place identity and place dependence associated with Meinong. Wu (2009) also found that both visitors' cognitive and affective images regarding Sun-Moon Lake National Scenic Area, Taiwan, had a positive effect on forming their place identity and place dependence.

The studies that focus specifically on the effect of place attachment on destination image have quite diverse results. Kyle, Graefe, Manning and Bacon (2004) found that respondents' perceptions of setting density were significantly predicted by both place identity and place dependence. Conversely, White, Virden and van Ripe (2008) discovered that neither place identity nor place dependence were a significant predictor of respondents' perceptions of recreation conflict. In addition to these empirical studies, Govers and Go (2004) explored the relationship between place identity and perceived image theoretically within a supply-demand framework that involves other elements (tourism experience, projected image and commercialization). According to them, the projected image is produced based on the destination's commercialized tourism products that, in turn, are built on place identity. Through marketing efforts, this projected image is transmitted to the demand side and forms the basis for constructing the visitor's perceived images.

2.4.6 Importance of Image Attributes

2.4.6.1 Importance of Ethnic Attractions

Ethnicity is a prominent feature of the contemporary tourism industry (Hitchcock, 1999). A

substantial segment of global tourism is particularly interest in ethnic tourism, which is described as the ‘search for the other’ and the quest for the ‘ethnically exotic’ (Van den Berghe, 1994). In many tourism destinations around the world, ethnic resources are made into tourism products (i.e., ethnic attractions) and used as distinctive image themes in tourism marketing.

Studies concerning the relationship between ethnic attractions and destination image (e.g., Doorne et al., 2003; Govers & Go, 2005; Hall, 1995; Henderson, 2003; Oktem, 2005; Palmer, 1994; Pitchford, 1995; Richter, 1989; Rieder, 1997) have been peripherally included among those that examine the relationship between the image of ethnic groups and their political ideologies or social identity (Imanishi, 2007). Oktem’s research (2005), for example, investigated antagonistic conceptualizations in exclusionist nation-building associated with symbols, meanings and images within the multi-ethnic and multi-religious city of Mardin, Turkey. In this paper, the concepts of imperial heritage, ethnocracy and hegemony were used to reconstruct images produced by the state, by the private mass media and by human rights organizations. Using documentary and pictorial data, Oktem exemplified that the images of ethnic minorities and cultural pluralism were mobilized by these three groups of stakeholders.

A study by Henderson (2003) looked at how ethnicity in Singapore was depicted in the promotional materials designed and disseminated by government authorities and the ways in which ethnic heritage helped to build images of multiculturalism and local uniqueness. Using documentary and pictorial data, Henderson captured tourists’ images of Singapore based on their images of ethnic tourist attractions such as ethnic customs (e.g., Chinese, Malay, Indian, and Eurasian food and attire), ethnic festivals and events (e.g., Chinese New Year and the Hungry Ghosts Festival), and built heritage (e.g., ethnic enclaves of Chinatown and Little

India). The author discovered that state authorities in Singapore used Chinese and Malay tourism images to form a national image of Peranakan culture in order to reinforce the government's political ideologies; multiculturalism itself was both an attraction and a highlight in projected images of Singapore. This researcher also found that minority identities were either neglected or discarded by state authorities in order to convey a desired country image. Henderson commented that multi-ethnicity could often cause political concern resulting from fragmentation.

Li's (2000) research touched upon the issue of authenticity in studying the image of the Wanuskewin Heritage Park in Saskatoon, Canada. The author revealed that ethnic life reflected in the projected image by the park was of primitive, changeless and "unspoiled Canadian Natives" and this offended the native people. This research raised an issue that is encountered by many ethnic sites today. As Li suggested, the propensity to "freeze" the ethnic culture should be avoided; rather, the integrity of native culture should be employed in projecting the park image for a sustainable tourism development, although it is easier said than done.

A number of studies have used ethnic attractions as an image attribute to evaluate peoples' images of a destination (e.g., Mi, 2003; Richards & Wilson, 2004; Rittichainuwat, Qu, & Brown, 2001). Shani, Chen, Wang and Hua (2010), for instance, examined the influence of a promotional video on image change associated with China as a tourism destination. The image attributes used in the surveys were constructed from both a literature review and focus groups. Among the 28 elicited attributes, two were related to ethnic attractions ("diverse and unique ethnic groups and cultures" and "unique historical and cultural attractions"). The results showed that respondents had relatively positive images of these two attributes among others.

2.4.6.2 Importance of Special Events

As “one of the fastest growing forms of leisure and tourism related phenomena” (Getz, 1991, p. 5), special events make a valuable contribution to shaping an image of the host community (Richards & Wilson, 2004; Yu, Wu, & Qing, 2008). Getz argued that special events have the potential to develop a theme or change the image of a host city. With the media attention on special events, the host city can gain significant publicity even in a very short time.

A number of researchers have verified that hosting special events improves a destination’s image (e.g., Cameron, 1989; Jeong & Faulkner, 1996; Mihalik & Simonett, 1998; Ritchie & Beliveau, 1974; Ritchie & Smith 1991; Pyo, 1995; Wicks, 1995). Ritchie and Beliveau (1974), for example, studied Quebec’s Winter Carnival as a strategic response to seasonality. They found that the event was successful in solving the problem of seasonality by turning the winter low season into a peak season. Cameron (1989) studied the role of special events in changing the image of an old industrial town, Lehigh Valley, Pennsylvania. He found that the town successfully changed its image by building up a cultural attraction and holding events. Ritchie and Smith (1991) examined the impact of the 1988 Winter Olympic Games on Calgary’s image change and suggested that the Olympic Games changed potential visitors’ images during a certain period of time. The authors noted that hosting such a large-scale event can greatly enhance the international popularity of cities like Calgary, but this is not the case for cities like Los Angeles that have already had a high visibility in the world.

Some studies test the image change of a destination due to a special event. Kim and Morrison (2005) compared the image of South Korea as perceived by Japanese, mainland Chinese, and U.S. visitors before and after the 2002 World Cup. The results revealed that

images held by the three national groups changed greatly because of the event. The images of all these groups became more positive after the event than they had been before. The authors illustrated that hosting the 2002 World Cup helped to improve the image of South Korea as a tourism destination. Another study by Gartner and Shen (1992) investigated the influence of the Tiananmen Square conflict on images of China as perceived by U.S. citizens. The researchers reported that U.S. citizens' images about China tended to be more negative after the conflict than before as a result of the influence of "autonomous" image formation agents. They pointed out that a major event can change a tourist image quickly; therefore, improving the destination's services may be more effective in attracting international tourists than holding promotional campaigns for enhancing or changing perceptions of attractions.

2.5 Research Model

Figure 2.1 presents a model of destination image formation for visitors and residents and the relationship between the supply-side image (projected image) and demand-side image (perceived image) associated with a destination. This model serves as a framework for the current research. A literature review indicates that an individual's perceived image about a destination can be influenced by various sources (e.g., promotional materials, word-of-mouth, and movies), personal characteristics (e.g., socio-demographic characteristics and place attachment), and certain destination attributes (e.g., special events). Specifically, visitor images are primarily influenced by information sources (including residents' images which can be a source – word-of-mouth), socio-demographic characteristics, place attachment, certain destination attributes, previous travel experience,

and motivations (circled by the solid line); while resident images are primarily affected by information sources, socio-demographic characteristics, place attachment, and certain destination attributes (circled by the dotted line). The influence of the abovementioned factors are examined in this study using central research questions two and three (page 54 and 55).

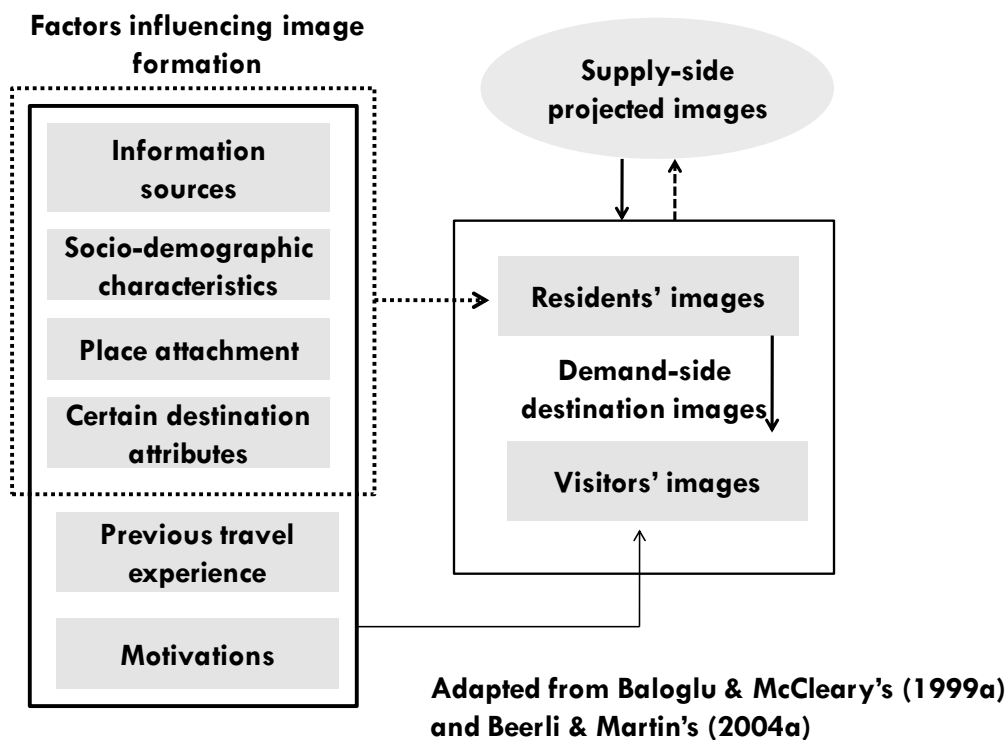


Figure 2. 1 Research Model (Adapted from Baloglu & McCleary's (1999a), A General Framework of Destination Image Formation, p.870 and Beerli & Martin's (2004a) Model of the Formation of Destination Image, p. 660)

A review of the literature also reveals that the supply-side projected destination image, which is a type of information source, has an impact on the formation of the perceived image to varying degrees. The extent to which projected images impact perceived images indicates the level of success of the destination's marketing. The impact of projected images on perceived images is investigated in this study by the identification of the gap between these two types of images (central research question one on page 54). It is worth noting that

the demand-side destination images of residents and visitors may also influence the supply-side projected images (indicated by the dashed arrow). However, this may not be the case of many Chinese destinations whose image construction and marketing are predominantly top down rather than bottom up. Therefore, the influence of the perceived image on the projected image is not investigated in the current research.

2.6 Summary of the Chapter

This chapter reviews literature on two aspects of image: (1) the projected and perceived destination images and their relationship, and (2) factors influencing perceived image formation. The first section discussed the concepts of the projected and perceived images. The projected image refers to those ideas and impressions intentionally and unintentionally created about a destination for peoples' consideration. The intentionally projected image is the main focus of early image studies, while both the intentional and unintentional projected images have been emphasized in recent years. One major purpose of these studies is to determine the effect of the projected image on tourists' image formation and travel choices. Content analysis is typically used to analyze the projected image.

The perceived image refers to individuals' perceptions of a destination formed through projected images that are then combined with their internal socio-demographic characteristics and external stimuli, such as information sources and previous experiences with a destination. During the past four decades, a number of definitions and theoretical frameworks have been proposed illustrating various components, dimensions and the formation process of the perceived image. In general, the cognitive-affective dimension and Echtner and Ritchie's

(1991) three-dimensional framework, in particular the former, are the most commonly adopted conceptual frameworks - completely or partly - by researchers to measure the image construct empirically. Surveys, interviews and focus groups typically are used to collect data and a variety of statistical tests, such as t-test and analysis of variance, are adopted in the data analysis.

Exploration of the relationship between the projected and perceived images is an emerging research field. This type of study focuses on identification of the gap between projected and perceived images. The methods used to compare these two types of images are diverse.

The second section of this chapter explored the literature on factors influencing image formation. The commonly examined influential factors in image formation include information sources, socio-demographics (e.g., sex, age, education, and marital status), motivations, travel experience, distance (culture) and length of stay. These types of studies focus on comparing groups (e.g., image differences among visitors of different age groups) and determining causal relationships.

A review of the literature shows that tourism image studies have mainly focused on the perceived image, whereas less effort has been put into exploring the relationships between projected and perceived images. These relationships are important because they examine the conformity between the supply- and demand-side images and potentially evaluate the performance of a destination's image promotion. In addition, image studies have heavily centered on visitors' perceptions of a destination, whereas few studies have touched on the images held by local residents. Furthermore, the role of particular components (e.g., ethnic

attractions and special events) which have often been important elements in constructing destination image has been neglected in previous studies. Lastly, there is a lack of studies that focus on China and its cities as tourism destinations. To fill in these research gaps, this study will examine the relationships between the images projected by Qingdao government agencies and those perceived by actual visitors and residents, as well as factors influencing image formation. The next chapter will discuss the methodology used in the current study, including the methods used for data collection and analysis as well as the limitations of the study.

Chapter 3 Research Methodology

This chapter discusses the methodological procedures used to accomplish the research goals. The background to the study area is introduced first. Then, the study's research design and methods are discussed, including sources used in this study, sampling, data collection and analysis. A summary of the chapter is provided at its conclusion.

3.1 Study Area

3.1.1 Study Site Selection

There are two reasons for selecting Qingdao as the study site. First, Qingdao is a major city in China that hosts both domestic and international visitors. In the past few decades, government agencies in Qingdao have put great effort into developing the city's tourism with a special focus on destination marketing (QDSQ, 2008). Consequently, marketers in Qingdao are eager to learn whether their destination marketing, particularly image promotion, has been successful and what factors influence the images of their potential consumers. In this sense, the information provided by this study can help to evaluate the city's marketing performance and provide baseline data for future research. Second, destination image literature indicates that image research is case-specific and lacks studies from places outside of North America and Europe. Accordingly, a case study of Qingdao may help to fill this gap in the literature.

3.1.2 Background of Qingdao

The study area, Qingdao, is located on the east coast of the Shandong Peninsula, facing Japan, North Korea and South Korea across the Yellow Sea (QDSQ, 2008). The city has a total area of 1,102 square kilometers and is home to 2.76 million people. Qingdao developed from a small

town (originally named Jiaoao) that was built up by the Qing government (1644-1911) for military defense on China's east coast in 1891. With the invasion of German troops in 1897, Gulf Jiaozhou, which surrounds Jiaoao on three sides, was occupied by Germany to build its naval base. Soon after, Germany chose Jiaoao as the base for its further invasion into inland China. From that time, the German government invested a large amount of funds and manpower into the city's construction. Many first-class architects and urban planning experts were sent to Qingdao to help design the city. Jiaoao thus rapidly developed into a modern city with western-style buildings and various business services. In 1899, Kaiser Wilhelm II renamed the city Qingdao. German control ended after the outbreak of World War I and, in the following years, Qingdao was occupied twice by Japan. It was not until 1945 that the city's administration was returned to the Chinese government. The colonial history of Qingdao has left the city with a great deal of cultural heritage. For example, Qingdao has about 360 German buildings in its old town, some of which have been developed into tourism sites.



Figure 3. 1 Study Area: Qingdao

3.1.3 Tourism Development

Early in the 1920s, Qingdao became a famous resort by virtue of its rich natural and cultural resources (QDSQ, 2008). However, the city's (tourism) development was impeded by the two world wars (1914-1918 and 1939-1945), China's civil war (1946-1949), and the Cultural Revolution (1966-1976). It was not until China's implementation of the open door policy in the late 1970s that Qingdao's tourism industry started to recover (QDSQ, 2008). In 1984, the municipality of Qingdao initiated the Qingdao City Master Plan, resulting in large-scale urban construction and renovations focused on tourist development. Through years of effort, Qingdao became distinct from other Chinese cities in the following aspects. Geographically, the western old town features red roofs and green trees with green sea and blue sky as the natural backdrop, while the eastern new town is characterized by modern architecture and businesses. There are four tourism zones from west to east: protected areas of European history and culture, an eastern urban sightseeing area, the Old Stone National Holiday Resort, and Laoshan Mountain National Parks (Figure 3.2, 3.3 and 3.4, some of the attractions in Qingdao). Since the city was chosen to host the 29th Olympic Games sailing event in 2002, the Qingdao Municipal Government has paid substantive attention to the city's environmental protection.



Figure 3. 2 An overview of Qingdao

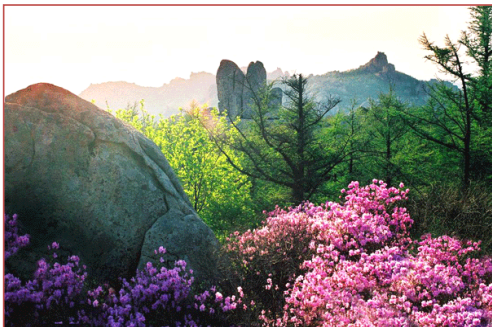


Figure 3. 3 Qingdao: Nature Scenery



Figure 3. 4 Qingdao: Cultural and Historical Sites



Figure 3. 5 Qingdao International Beer Festival



Figure 3. 6 Qingdao: Beach

As a popular destination in China, Qingdao's tourism development has continuously escalated since early 1978, particularly in the last ten years. From 1998 to 2006, the average growth rate was 13 percent for domestic tourists and 21 percent for tourist revenues (QDTA, 2009a). The average growth rates for international tourist arrivals and tourist revenues were 19.3 percent and 23.3 percent respectively during the same period of time. In 2007, the number of domestic tourists reached 32.58 million, which generated 5,162 million U.S. dollars in revenue. In the same year, Qingdao was ranked eighth among major Chinese cities in terms of numbers of overseas visitors. There were 1,081,476, foreign tourist arrivals while foreign tourism revenues were 675 million U.S. dollars.

3.1.4 Destination Marketing

Destination marketing in Qingdao was put on the agenda by the municipal government in the early 1980s (QDSQ, 2008). Three actions have been taken since then. First, promotional materials (books, brochures, booklets, posters, billboards, and postcards and videos) concerning the city's landscape, history, architecture and tourism development were published

(QDTA, 2009b). Promotional campaigns at national and international trade fairs and exhibitions also were run to promote the city to the outside world. Finally, marketing initiatives were implemented through cooperation and joint promotions among businesses both at home and abroad. For example, Qingdao worked together with the cities of Tianjin, Dalian and Qinhuangdao, creating a travel route entitled *The Golden Necklace Tour* around the Bohai Sea.

The success of winning the bid for the 2008 Olympic Games sailing event provided a good opportunity for Qingdao to present a positive image. In 2002, the Qingdao Olympic Action Plan, emphasizing the theme of “sailing city,” was initiated in order to target the participant countries of the 2008 Olympic Games (QDTA, 2009a). A great deal of manpower and funding (e.g., 4.52 million U.S. dollars) from 2006 to 2008 was devoted to support this plan. For example, the Qingdao government sent out promotional groups to more than 20 countries and ran 85 marketing campaigns entitled “Meeting at the Olympics, Sailing in Qingdao.”

3.2 Research Design

3.2.1 A Mixed Methods Approach

Research that adopts a single methodological design, either quantitative or qualitative, is undertaken based on different epistemological and ontological assumptions; that is, each type of research design has different assumptions about what can be known (ontology) and how we know what we know (epistemology) (Creswell, 2009). Traditional studies match post-positivism and social constructivism with quantitative and qualitative approaches, respectively. This categorization, although problematic, can provide a general context for the

use of a mixed methods approach.

Post-positivists believe that reality cannot be precisely and completely understood because of the uncertainty of knowledge and limitation of measures (Neuman & Robson, 2007). Rather, only approximate “truth” can be achieved through establishing warranted assertibility. Followed by a deterministic philosophy, post-positivists believe that science requires precise and logical reasoning and causes influence effects or outcomes (Creswell, 2009). Thus, post-positive (quantitative) studies focus on identifying and assessing the causes that determine outcomes. Such studies are undertaken through reducing broad ideas into a small, discrete set of ideas to test: for example, testing the relationship between or among the variables that form hypotheses and research questions.

Social constructivists assume that individuals develop subjective meanings to make sense of the world (Creswell, 2009). These meanings are not simply imprinted on individuals but are built through a process of human interaction and through the historical and cultural contexts where individuals live. Thus, constructivist (qualitative) researchers seek to understand these socially-constructed meanings focusing on the specific context or setting of participants. They also explore the meanings that participants hold about the world through a process of co-construction, whereby the meanings of the researcher and the participant are negotiated.

The philosophical and methodological approaches underpinning post-positivism and social constructivism reflect fundamental differences between these two stands and suggest their incompatibility. This poses difficulties for researchers who intend to employ multiple research approaches.

Contrary to the oppositional duality underlying the mono-method research, pragmatism provides a philosophical basis for using both quantitative and qualitative approaches within one single research investigation (Creswell, 2009). Pragmatists believe that the world is not an absolute unity and can be understood to some degree in a variety of ways from different perspectives. Thus, mixed methods researchers adopt multiple approaches to collect and analyze data rather than subscribing to a single method. Pragmatists focus on the research problems; methods are chosen based on the nature of the research purposes and their likely contribution to understanding the research problem.

A mixed methods approach was chosen for this research for three reasons. First, the research questions used in this study are both exploratory and confirmatory. These questions were developed based on previous quantitative and qualitative studies reflecting both post-positivist and social constructivist standpoints. Therefore, a mixed methods approach is necessary because it allows for the answering of research questions (e.g., What are the projected images of Qingdao as interpreted by key informants?) and the testing of hypotheses (e.g., Does education influence the cognitive image of visitors?) within one single study (Tashakkori & Teddlie, 2003).

Second, a mixed methodology allows for the recording of diverse views and generates fuller, deeper, and broader insights from a variety of interests and perspectives (Greene & Caracelli, 1997). This feature of mixed methodologies confirms the necessity for its use in this research that examines different perspectives (the supply- and demand-sides) of the destination image to obtain a bigger picture of the phenomenon being studied.

Third, a mixed methods approach follows a fundamental principle that the methods

chosen should have complementary strengths and have no overlapping weaknesses (Tashakkori and Teddlie, 2003). In this regard, when the results of the analyses of different types of data (i.e., data from promotional materials and interviews) in reference to one phenomenon (e.g., the projected image) are coherent, a stronger inference can be made. When the two results are different or contradictory, the findings are also valuable because they raise the need to re-examine the theoretical frameworks from which research questions and hypotheses are derived.

3.2.2 Purpose of the Study and Research Questions

The purpose of this study is to examine the relationships between the projected and perceived images associated with Qingdao, China, focusing specifically on the role of ethnic attractions and special events in influencing the perceived images. It will also explore whether information sources, socio-demographic characteristics, motivations, previous travel experience, and place attachment influence the images of current visitors and residents regarding Qingdao. Specifically, this study will address three central research questions:

Central Research Question 1: What are the relationships among the three images: the images projected by the Qingdao government agencies responsible for tourism marketing between 2006 and 2009, and those perceived by current visitors and by residents regarding Qingdao?

RQ1: What are the most frequently used descriptors (words or phrases) in the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration between 2006 and 2009, as shown in promotional materials?

RQ2: What are the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration between 2006 and 2009, as interpreted by officials, planners, and scholars responsible for Qingdao's tourism marketing and planning?

RQ3: What themes are emphasized in the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration between 2006 and 2009, as interpreted

by officials, planners and scholars responsible for Qingdao's tourism marketing and planning?

RQ4: What is the relationship between the most frequently used descriptors in the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration between 2006 and 2009, as shown in promotional materials, and their counterparts in the cognitive, affective, and overall images perceived by current visitors?

RQ5: What is the relationship between the most frequently used descriptors in the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration between 2006 and 2009, as shown in promotional materials, and their counterparts in the cognitive, affective, and overall images perceived by residents?

RQ6: Do actual visitors and residents differ in their cognitive, affective, and overall images of Qingdao?

Central Research Question 2: Do socio-demographic characteristics, motivations, previous travel experience, information sources, place attachment, ethnic attractions, and special events influence the images of current visitors regarding Qingdao?

RQ7: Do visitors differ in their cognitive and affective images of Qingdao depending on their sex?

RQ8: Do visitors differ in their cognitive and affective images of Qingdao depending on their educational levels?

RQ9: Do visitors differ in their cognitive and affective images of Qingdao depending on their age?

RQ 10: Do visitors differ in their cognitive and affective images of Qingdao depending on their occupations?

RQ11: Do visitors differ in their cognitive and affective images of Qingdao depending on their places of residence?

RQ12: Do visitors differ in their cognitive and affective images of Qingdao depending on their previous travel experiences?

RQ13: Do visitors differ in their cognitive and affective images of Qingdao depending on their primary motivation (i.e., business, visiting friends and relatives, entertainment and relaxation, and conference or exhibition)?

RQ 14: Do visitors differ in their cognitive and affective images of Qingdao depending on the most important source used?

RQ 15: Do visitors differ in their cognitive and affective images of Qingdao depending on the number of information sources used?

RQ16: Does place attachment relate to the cognitive and affective images of visitors regarding Qingdao?

RQ17: Does the importance of German heritage relate to the cognitive and affective images of current visitors regarding Qingdao?

RQ18: Does the importance of the 2008 Olympic Games relate to the cognitive and affective images of current visitors regarding Qingdao?

RQ19: Does the importance of the Qingdao International Beer Festival relate to the cognitive and affective images of current visitors regarding Qingdao?

Central Research Question 3: Do socio-demographic characteristics, information sources, place attachment, ethnic attractions, and special events influence the images of residents regarding Qingdao?

RQ20: Do residents differ in their cognitive and affective images of Qingdao depending on their sex?

RQ21: Do residents differ in their cognitive and affective images of Qingdao depending on their educational levels?

RQ22: Do residents differ in their cognitive and affective images of Qingdao depending on their age?

RQ23: Do residents differ in their cognitive and affective images of Qingdao depending on their occupations?

RQ24: Do residents differ in their cognitive and affective images of Qingdao depending on their length of residence?

RQ25: Do residents differ in their cognitive and affective images of Qingdao depending on the most important source used?

RQ26: Do residents differ in their cognitive and affective images of Qingdao depending on the number of information sources used?

RQ27: Does place attachment relate to the cognitive and affective images of residents regarding Qingdao?

RQ28: Does the importance of German heritage relate to the cognitive and affective images of

residents regarding Qingdao?

RQ29: Does the importance of the 2008 Olympic Games relate to the cognitive and affective images of residents regarding Qingdao?

RQ30: Does the importance of the Qingdao International Beer Festival relate to the images of residents regarding Qingdao?

3.2.3 Sources Used for Understanding the Projected Image

Promotional materials, including brochures and travel guides issued by Qingdao government agencies responsible for tourism marketing, were used as a major source to understand the projected image of Qingdao. The reason for choosing these materials is that promotional materials, brochures in particular, are widely used means for destination marketing (Holloway & Plant, 1988). Accordingly, they are typically considered an important source for studies (including the current one) that explore the image projected by a destination.

Interview data were used as secondary source to explore the projected image of Qingdao. The technique of key informant interviews was adopted because it allows for the collection of information from people who provide expert information on certain social phenomena (Gratton & Jones, 2004). In this case, that range of people includes officials, planners, and scholars who have been involved in Qingdao's tourism marketing and planning. These people have first-hand knowledge and experience in creating Qingdao's image and, thus, can provide valuable insight when interpreting the meaning of the projected image. The second factor leading to the use of key informant interviews is that this technique is much easier to implement and less expensive when compared with other forms of qualitative data collection techniques, such as focus groups and observations (Gratton & Jones, 2004).

The purpose of using two types of qualitative data is to increase the accuracy of the findings. When evidence from different data sources agrees, a coherent justification for

results is established, and the validity of the research is thus increased (Creswell, 2009). In this research, the analysis of promotional materials provides a general understanding of the projected image of Qingdao. The results of the interview data, which are presented as direct quotes, play a supportive role in explaining the content of the promotional materials.

3.2.3.1 Sample and Data Collection for the Projected Image

The sample included all tourism brochures and travel guides issued by the Qingdao Municipal Government and the Qingdao Tourism Administration from 2006 to 2009. These materials were collected in May 2009 through the researcher's personal contacts with these two agencies. The Qingdao Municipal Government and the Qingdao Tourism Administration were chosen because they are the major government agencies responsible for tourism marketing in Qingdao. Consequently, their promotional materials represent the official projected images of the city. The three-year time span (2006–2009) was selected because the promotional materials used by the aforementioned agencies were the same during that time duration.

A total of five brochures and one tourist guidebook were gathered and used for analysis. Each document (e.g., a brochure) was scanned and saved as an independent file. If a document contained both textual and graphic information, a copied file was created using a name related to the original one (e.g., brochure1_text and brochure1_picture). Two files for the same document were created because the analyses of texts and pictures were conducted separately. Basic information regarding these promotional materials is described in Table 3.1.

Table 3. 1 Promotional Materials Used for Projecting Qingdao

Title	Producer	Year of Publication	Languages Used	Number of pages	Number of pictures
Tour Qingdao	The Qingdao Tourism Administration	2006	Chinese, English, Korean, and Japanese	79	85
Qingdao, China	The Qingdao Municipal Government	2006	Chinese	112	80
Qingdao 2008	The Qingdao Municipal Government	2008	Chinese	104	47
Qingdao, A Picturesque Harbor	The Qingdao Tourism Administration	2007	Chinese and English	17	25
Qingdao, China: Colourful Qingdao, Charming Seashore	The Qingdao Tourism Administration	2007	Chinese	12	24
Qingdao Tourist Guidebook	The Qingdao Tourism Administration	2006	Chinese and English	34	62

Snowball sampling was employed to reach the target interviewees. The data collection process involves development of a list of potential participants based on the recommendation of the researcher's personal contacts. After contacting these potential participants, information concerning their availability and a list of other potential research participants was obtained. When participants were confirmed for an interview, they were sent a contact form regarding the interview and a document that provided a brief introduction to the study. Altogether five people were interviewed during April and May in 2009. The interviewees included: (1) the Chief of the Information Office in the Qingdao Municipal Government; (2) the former Chief of the Marketing Department (current Deputy Director) in the Qingdao Tourism Administration; (3) the Chief of the Planning Department in the Qingdao Tourism

Administration; (4) the Director of Qingdao Tourism College at Qingdao University, who participated in Qingdao's tourism planning in the past two decades; and (5) the chief consultant of the Qingdao International Beer Festival Office. Each interview took 15 to 30 minutes. Participants' answers were tape-recorded with their approval and transcribed into a word document. A copy of the transcript was sent to the interviewees for review. Based on the interviewee's feedback, the transcripts were revised and saved for further analysis.

Two open-ended questions were asked in the interviews: (1) What images were projected by Qingdao government agencies during the past three years? and (2) What image themes were emphasized in the projected images during the past three years? These questions were developed based on the literature review and central research question 1. Modifications were made according to the recommendations from the researcher's supervisor.

3.2.3.2 Data Analysis

Promotional materials were content analyzed to identify the most frequently used word or phrase descriptors of image attributes. As Krippendorff points out, "Content analysis is a research technique for making replicable and valid inferences from texts (or other meaning matter) to the contexts of their use" through summarizing, simplifying, or reducing large amounts of information into fewer content categories based on rules of coding (2004, p.18). This technique not only provides an easy way to quantify complex information using a standard framework (Weber, 1990), but it also facilitates gaining an in-depth understanding of the language or meaning of the document under study (Creswell, 2002). It is commonly used in social research to analyze recorded transcripts of interviews and various media content (Babbie, 2005), when these documents are used as the primary sources of data and the

message itself is the object of inquiry (Kassarjian, 1977). As promotional materials are the most important sources of promotion for Qingdao's image, the content analysis technique is appropriate for analyzing these data.

Analytical procedures were conducted in three steps. First, the promotional materials' textual information was analyzed to identify descriptors (words and phrases) that portrayed Qingdao's image. The materials' visual information then was analyzed using the image descriptors identified from the texts as points of reference. Each picture was coded based on the information it conveys. Finally, the image descriptors were counted for their frequencies of occurrence; the most frequently used ones (appearing at least 10 times in the promotional materials) from both the texts and pictures across all documents, together with their frequencies, were listed in a table for subsequent analysis (i.e., the comparison of projected and perceived images). Based on the assumption that the most often mentioned words reflect the greatest concerns of the message creators (Stemler, 2001), the most frequently used image descriptors identified from the promotional materials are considered to be themes that marketers in Qingdao intended to emphasize in their projected images.

NVivo 8 was used to analyze these promotional materials. This software was chosen for three reasons. First, it allows for the analysis of various types of data (Edhlund, 2008), which is critical for this research that involves both textual and graphic information. In addition, it facilitates the coding process by enabling researchers to relate codes to the original location from which they are generated. Finally, it runs under multiple languages including Chinese, which is used in the promotional materials. This function allows the researcher to analyze the data using the original language in which it was produced, reducing the chance of mistakes in

translating the large amount of raw data.

Interview transcripts were analyzed to facilitate the understanding of the projected image of Qingdao. The analytical procedures were as follows. All interview transcripts were read through to obtain an immersion of the data. Then the responses were screened and useful information was highlighted. Finally, the interview extracts were presented as direct quotations that were used to help explain the results of promotional materials.

3.2.4 Sources Used for Examining the Perceived Image and Its Influential Factors

Survey questionnaires were used for examining issues relating to the perceived images of Qingdao. Surveys were chosen because of their convenience for gathering data and conducting statistical analysis (Bryman & Teevan, 2005). In addition, surveys, self-administered surveys in particular, make it possible to reach large samples. Two questionnaires, which are nearly identical, were used in this study to investigate the images of actual visitors and residents, respectively.

3.2.4.1 Survey Instrument

Both questionnaires have four sections: (1) questions exploring the respondents' overall images of Qingdao; (2) questions examining the respondents' cognitive and affective images of Qingdao; (3) questions examining the factors that influence the respondents' image formation; and (4) questions concerning respondents' demographic information. In the questionnaire for actual visitors, the first section has two open-ended questions developed by Echtner and Ritchie (1993). Respondents were asked to freely express their thoughts in the following questions: "What images or characteristics come to mind when you think of Qingdao as a tourism destination?" and "How would you describe the atmosphere or mood

that you would expect to experience while visiting Qingdao?” Answers could take the form of words, phrases, or sentences.

The second section includes questions concerning the cognitive and affective images. Question one includes 26 items regarding cognitive image attributes that were developed based on the studies of Beerli and Martin (2004a, b); Echtner and Ritchie (1993); and Mi (2003); and a review of Qingdao’s tourism brochures. Respondents were asked to indicate their level of quality of each item on a 5-point Likert scale ranging from very good, good, neutral, poor, to very poor (asked mostly in Mandarin). An extra ‘don’t know’ item also was added, allowing respondents to indicate that they have no opinion about a particular image attribute. Additionally, respondents were asked to indicate the importance (yes or no) of these 26 image attributes in forming their images of Qingdao. In question two, affective images are evaluated on a 5-point semantic-differential scale developed by Baloglu and Brinberg (1997). Respondents were asked to indicate their level of quality (e.g., extremely arousing, very arousing, neutral, very sleepy, and extremely sleepy) with four affective attributes (arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing).

The third section is comprised of questions focusing on factors influencing the perceived image formation. The first question examines the importance of ethnic attractions and special events in influencing the perceived images. Respondents were asked to state the level of importance of three items (i.e., German heritage, the 2008 Olympic Games, and the Qingdao International Beer festival) in influencing their images of Qingdao. A 5-point Likert scale was used to measure these items, ranging from 1, very unimportant, to 5, very important.

A 'don't know' item also was provided in case the respondents had no opinion on certain item(s).

The second question includes nine types of information sources that might have influenced respondents' images, based on the studies of Gartner (1993), Baloglu and McCleary (1999b), and Mi (2003). These sources include (1) tourist brochures, (2) mass-media advertising campaigns, (3) travel agency staff, (4) the Internet, (5) word-of-mouth, (6) guidebooks, (7) news, (8) magazines and (9) documentaries and TV programs. Respondents were asked to mark all the information sources that influenced their images of Qingdao and to indicate the most important source that their images are based upon. They could also jot down other sources used in the additional bracket.

The third question sought information regarding previous travel experience in Qingdao by asking participants the number of previous visits they had made to the city. The fourth question required respondents to choose the primary motivation for their current visit. The items for motivations (i.e., business, visiting friends and relatives, entertainment and relaxation, and conference or exhibition) were developed in accordance with the works of Beerli and Martin (2004a) and Mi (2003). An additional bracket was provided for the participant to add any additional choices.

Finally, the participant's attachment to Qingdao was examined through four statements modified from Hailu, Boxall and McFarlane's (2005) study. These statements include: (1) Visiting Qingdao says a lot about who I am; (2) I can identify easily with this destination; (3) I get more satisfaction from visiting Qingdao than visiting any other destination; (4) I enjoy doing the types of activities I do in Qingdao more than at any other destination. A 5-point

Likert scale was used in these statements, ranging from 1, strongly disagree, to 5, strongly agree. A 'don't know' choice also was provided.

The last section includes demographic information of the respondents. They were asked to choose the category in which they belong in terms of certain variables: sex (male, female), age (18-24, 25-44, 45-54, and 55-and-over) and educational level (less than high school, high or professional school, college or university, and graduate studies). Respondents also were asked to write down their occupations and place of residence (country of origin for international visitors and province of residence for domestic visitors).

In most sections, the questionnaire for local residents contains the same content as the one for visitors. However, differences exist in the following questions. First, the questions for previous travel experience, motivations and place of residence were omitted in the questionnaire for residents. Additionally, statements in the attachment questions are different from those used with visitors. The five statements used were modified according to the studies of Hwang, Lee, and Chen (2005) and Hailu, Boxall and McFarlane (2005). These statements are as follows: (1) I feel Qingdao is part of myself, and I am part of Qingdao; (2) I have many relatives and friends living in Qingdao; (3) I will miss Qingdao if I leave it; (4) I am very happy to be living in Qingdao; (5) I don't want to live anywhere other than Qingdao. Finally, an open-ended question regarding the respondent's length of residence (number of years the participant had lived in Qingdao) was asked.

Because this survey involved international visitors, English, Japanese and Korean versions of the questionnaire were used in addition to the Chinese version. These three languages were chosen because visitors from Korea, Japan and the United States have

composed the majority of Qingdao's international market since 2000 (QDSQ, 2008). For example, in 2007, Korean and Japanese visitors to Qingdao accounted for 49.7 percent and 29.5 percent, respectively, among all international visitors. The questionnaire was originally designed in English and translated into Chinese by the researcher. Two translators who work at the China Youth Travel Service, Qingdao Branch, helped to translate the questionnaire into Japanese and Korean. Three language (English, Japanese, and Korean) teachers at Shandong College of Tourism and Hospitality reviewed the translations for accuracy.

3.2.4.2 Pilot Study

A pilot study was conducted in April 2009 to identify any omissions and assess the appropriateness of the questions. A convenience sample of 15 university students in the Department of Tourism Management at Qingdao University was recruited to evaluate the research instrument. The questionnaires also were examined by two Chinese professors who have been involved in tourism studies in Qingdao for many years. Finally, the researcher's supervisor reviewed the instrument in order to ensure its content and face validity.

3.2.4.3 Sample and Data Collection for the Perceived Image

The survey population consisted of individuals over the age of 18 who visited either of the three tourist attractions of Qingdao, Zhanqiao Pier, Laoshan Mountain and Qingdao Beer Museum, from June 10 to July 10, 2009. The sampling process included two stages. First, three survey sites, Zhanqiao Pier, Laoshan Mountain and Qingdao Beer Museum, were purposely selected from 28 sites recommended on the Qingdao Tourism Administration's web site. These sites were selected because they represent three different types of tourist attractions in Qingdao. Specifically, they represent natural, cultural and historical, and

cultural and amusement sites. Also, they were the top sites in terms of tourist volume in the three identified categories. The second stage involved interviewing a random sample of 990 participants during Qingdao's peak travel season on both weekdays and weekends, from June 10 to July 10, 2009, at the three predetermined tourist sites. As a sampling frame was unavailable, every tenth individual who passed by the survey points within the three sites between 9 am and 5 pm was approached and asked to complete a questionnaire. The survey continued until 330 questionnaires were completed at each site.

Because participants included international visitors, the researcher hired two university students fluent in Japanese and Korean to help conduct the survey. A notice board with information on the study was posted at the survey sites to introduce the purpose of the research using Chinese, Korean, Japanese and English. Contact information was included in this notice for comments, questions and other concerns.

3.2.4.4 Data Analysis

The survey data were coded and analyzed primarily using the Statistical Package for Social Science (SPSS) 18 to examine the images of current visitors and residents associated with Qingdao and the influence of certain factors on these images. Preliminary analyses were conducted to examine the quality of the data. Shapiro-Wilk tests were run to test whether the dependent variables (26 cognitive and 4 affective image attributes) were normally distributed. The Shapiro-Wilk testing involved a comparison between the distribution of the variables being studied and a theoretically normal distribution (Pett, 1997). If the deviations from normality are sufficient, the distribution being examined is considered not to be normal. The null hypothesis—the data show a normal distribution—is rejected if the obtained significance

level is less than the predetermined level of alpha (e.g., .05). The results of the Shapiro-Wilk tests showed that the 30 dependent variables used in this study did not show a normal distribution: all p values were less than .05 (the significance level used in this research). The non-normally distributed data, together with the ordinal level of the dependent variables (5-point Likert scale), indicate that non-parametric tests are more appropriate than parametric tests for this study.

The analytical procedures are as follows: First, descriptive statistics were performed to discover the demographic characteristics (i.e., sex, age, education, occupation, place of residence, and length of residence) of the participants as well as to investigate the images of Qingdao perceived by visitors and residents. Second, a Mann-Whitney U test was conducted to determine whether the images of current visitors and residents differ from each other; it was also used to evaluate the influence of sex, education, and previous travel experience on the images of participants. This non-parametric test, the counterpart of the parametric T-test, is used to determine whether or not significant differences exist between two independent samples when the assumptions of T-tests are not met (Pett, 1997). Mann-Whitney U tests are the same as T-tests when comparing measures of central tendency between two independent samples; however, they differ from T-tests in using medians rather than means for comparison. To run a Mann-Whitney U test, the scores on the dependent variable for both samples are combined into one group and ranked from lowest to highest. The two samples are then separated out, and the assigned ranks for each group are summed up. If the sum of the ranks for one group is sufficiently larger than that of another group, it can be concluded that the two groups are not from the same population.

Prior to applying the Mann-Whitney U test, Kolmogorov-Smirnov two-sample tests were performed to determine whether the distributions of the dependent variable for the two categorical groups present a similar unspecified shape—one of the assumptions of the Mann-Whitney U test (Pett, 1997). Kolmogorov-Smirnov two-sample tests are used to examine whether the two groups resulting from two levels of a nominal variable are from populations that share the same distribution that is not specified. To run a Kolmogorov-Smirnov two-sample test, the cumulative frequency distributions of the dependent variable within the two groups are compared. If the two cumulative distributions differ substantially at any particular point, it can be concluded that the two groups do not share the same distribution. The results of Kolmogorov-Smirnov two-sample tests showed that the distributions for the 30 dependent variables for both groups (e.g., visitors and residents, male and female) are similar: p -values are greater than .05 (significance level used in this research). Therefore, the assumptions of the Mann-Whitney U test were fulfilled, except for the fact that the sample was not randomly selected.

Although Mann-Whitney U tests were chosen to analyze the data, the large sample size used in this research provided a potential reason for the use of parametric T-tests. For this reason, T-tests were also run but the results showed only slight differences when compared to those generated from Mann-Whitney U tests (see Appendix III).

Third, a Kruskal-Wallis test was carried out to examine the effects of the most important source of information used, the number of sources used, age, occupation, place of residence, length of residence, and motivations on the images that actual visitors and residents held about Qingdao. The non-parametric Kruskal-Wallis test allows the researcher to identify whether or

not significant differences exist among three or more groups when the dependent variables are not normally distributed and are measured at the ordinal level (Sheskin, 2007).

Prior to applying the Kruskal-Wallis test, histograms of the dependent variables were generated to determine whether the distributions of each dependent variable within the three (or more) groups were similar. The results showed that the distributions of the three (or more) groups (e.g., 18-24, 25-44, 45-and-over), although rather skewed, shared a similar shape. This indicates that all assumptions of the Kruskal-Wallis test were met, except that the sample was not a random one.

Although Kruskal-Wallis tests were chosen to analyze the data, the large sample size used in this research provided potential for the use of parametric Anova tests. Therefore, a number of Anova tests were also performed but the results showed slightly differences when compared to those generated from Kruskal-Wallis tests (see Appendix IV).

When a significant difference was found in Kruskal-Wallis test, Mann-Whitney *U* tests were used as post-hoc tests to determine which of the pairs of groups being compared was significantly different.

Fourth, Spearman's correlation was computed to determine whether place attachment and importance of German heritage, the 2008 Olympic Games, and the Qingdao International Beer Festival influenced the images that actual visitors and residents held about Qingdao. It was also used to determine the relationship between the images projected by Qingdao and those perceived by visitors and residents associated with Qingdao. The Spearman correlation coefficient analysis allows the researcher to investigate the relationship between two variables using ordinal-level data. It is also suitable for an occasion when the number of cases is small,

which is the case of this study (Hill & Lewicki, 2007). The purpose of this test is to determine the extent to which two variables relate monotonically (Sheskin, 2007).

Lastly, the responses for two open-ended questions concerning participants' overall images of Qingdao were content analyzed to identify the most frequently mentioned image descriptors (words or phrases). Only those that were mentioned by at least 10 percent of respondents, together with their frequencies, were listed in a table for subsequent analysis (i.e., the comparison of the images perceived by visitors and residents). Chi-square tests were then used to examine whether there were significant differences between the overall images of visitors and residents.

3.2.5 Relationship between the Projected and Perceived Images

The preceding content analysis and descriptive statistics provided information on the projected and perceived images of Qingdao. This information was used to understand the relationship between these two images. Specifically, the projected image of Qingdao was represented by the most frequently used image descriptors (appearing at least 10 times in the promotional materials). The perceived images of visitors and residents were represented by the 26 cognitive attributes (mean scores and percentage of respondents who deemed these attributes important). A new index derived from the 26 cognitive attributes was created by multiplying the mean value of a cognitive attribute by the percentage of respondents who deemed this attribute important, and then dividing by 100. The relationship between the projected and perceived images was evaluated in two ways. First, a qualitative evaluation was conducted by comparing the identified projected image descriptors (frequency and ranking) and their corresponding cognitive image (ranking based on percentage of respondents who

deemed the 26 cognitive attributes important) and the overall image (percentage of respondents who mentioned the descriptors) counterparts. Second, statistical tests were used to examine the projected and perceived image relationship. Four types of information were entered into a matrix and shown as four columns: (1) projected image descriptors (frequency), (2) the mean values of 26 cognitive image attributes, (3) the percentage of respondents who deemed these 26 cognitive attributes important, and (4) a new image index (described above) combining both of quality values and importance of these 26 cognitive attributes. The values of column one were compared with those of the other three columns, respectively, using Spearman's Rank Correlation tests. Inferences were made on the relationships between: (1) the projected image and the images perceived by visitors, and (2) the projected image and the images perceived by residents.

3.3 Limitations of the Research

Several limitations of this research exist. One major limitation relates to the sampling approach for the surveys. As mentioned before, the sampling process included two stages: sampling of survey sites and sampling of participants. The sampling of three survey sites was not random, it was purposely selected. Additionally, the surveys were conducted during Qingdao's peak travel season: June and July. Surveys conducted at another time may generate different results. These issues may impede the generalizability of the findings of this research to a larger population.

Another major limitation is associated with the selection of attributes for measuring perceived images using a concurrent research design. Although the attributes were chosen based on a review of existing studies and a few Qingdao tourism brochures, they did not cover

the entire list of projected image descriptors elicited from the content analysis of promotional materials. As a result, a few identified projected image descriptors (e.g., Place for vacations and holidays and high technology) could not be assessed by the research participants, leading to a small gap in the research results.

As in all surveys, it is possible that this research may not have avoided an element of interview bias, which is a third limitation of the study. Furthermore, the survey results showed that respondents had more positive responses toward all of the image attributes of Qingdao. Respondents' ratings of all attributes fell from neutral to the positive end of the 5-point Likert scale. These results could be partially due to social desirability bias. Chinese people are more likely to provide positive answers when filling in questionnaires and being interviewed. This bias can possibly decrease the validity and reliability of the research.

3.4 Summary of the Chapter

This study aims to provide an understanding of destination image from the supply and demand side using a case study of the Chinese destination, Qingdao. Both qualitative and quantitative data are used to fulfill the research goals. The qualitative promotional materials were content analyzed by counting the frequencies of words or phrases that describe the images of Qingdao. The quantitative survey data were analyzed using descriptive statistics and nonparametric statistical tests such as Mann-Whitney *U* tests and Kruskal-Wallis tests to investigate the images of visitors and residents and the influences of certain factors on these images. Based on the results for the projected and perceived images, comparisons were made to understand the relationship between the projected image, and the images perceived by visitors and residents. The research findings will be presented in the next three chapters.

Chapter 4: Projected and Perceived Images of Qingdao

This chapter presents findings regarding the projected and perceived images of Qingdao and their relationships. First, the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration are described. Second, the images perceived by current visitors and residents regarding Qingdao are discussed. Lastly, the relationships among the images projected by Qingdao, the images perceived by current visitors, and those perceived by residents are reported, followed by a chapter summary.

4.1 The Projected Images of Qingdao

Promotional materials, including five brochures and one tourist guide issued by the Qingdao Municipal Government and the Qingdao Tourism Administration, were content analyzed to understand the projected image of Qingdao. Specifically, word or phrase descriptors of image attributes of Qingdao were identified. Similar words or phrases were grouped and the number of times that each image descriptor appeared in the text and pictures in all documents was counted. The most frequently used 18 image descriptors (appearing at least 10 times in the promotional materials) are listed in Table 4.1 and used for subsequent analysis.

It can be seen that natural scenery/mountain/forest/flora, special events/holding sailing events, city landscape/skyscrapers/modern buildings, and European style architecture were emphasized most strongly by Qingdao government agencies, appearing 93, 55, 41, and 38 times in the promotional materials, respectively. Natural scenery, the number one descriptor,

was depicted by the promotional materials focusing on mountains, forest and flora. This descriptor was particularly emphasized because

we [marketers] have a strong belief that Qingdao is a blessed gift of nature with a harmonious coexistence of mountain, sea and the city that has the potential to attract visitors (Key Informant B).

All five interviewees considered natural scenery to be one of the emphases of Qingdao’s projected image; however, they invariably combined this theme with other descriptors when introducing it. For example, as Key Informant A acknowledged:

We have used the theme “red roofs of buildings, surrounded by green trees with green sea and blue sky as the natural backdrop” to promote Qingdao for many years. This theme combines the European style architecture and the beautiful natural scenery [of Qingdao], which makes Qingdao quite unique when compared with other Chinese cities.

Table 4. 1 Most Frequently Appearing Image Descriptors in the Promotional Materials

Image descriptors	Frequency
Natural scenery/mountain/forest/flora	93
Special events/holding sailing events	55
City landscape/skyscrapers/modern buildings	41
European style architecture	38
Facilities	31
European feature attractions	23
Squares	21
Beaches	20
Place for vacations and holidays	20
Transportation system/air routes to more than 20 countries/highway and railway networks	19
Seafood	16
Place for sightseeing	14
Golf	14
Historical and cultural attractions	14
Shopping	13
Place for water sports	12
Weather/pleasant weather	11
High technology	11

Special events/holding sailing events was a newly-emphasized theme in accordance with Qingdao’s hosting the 29th Olympic Games sailing event and Paralympics Games. The purpose of promoting this theme was to build international fame for Qingdao as a “sailing city” (QDTA,

2009a). Descriptions such as “successfully holding the Olympic Games sailing event” was used in the promotional materials to address this theme. Pictures of sailing boats and events, and the 29th Olympic Games Sailing Centre were emphasized to reflect this feature. Other evidence of this emphasis on Qingdao being a sailing city is that four out of six front covers in the promotional materials used pictures of sailing events. Key Informant D commented on the emphasis of this image theme:

The effect of the 2008 Olympic Games is a great advantage for boosting our city’s tourism. The Olympic Games helped Barcelona become the third holiday resort in Europe and Salt Lake City become a thriving conference centre. We should also take advantage of holding the 29th Olympic Games sailing event and Paralympics Games to build a city brand.

In addition to sailing events, other local events and festivals were also used in projecting Qingdao’s image. This focus was mentioned by all key informants. As Key informant D explained:

Our city holds a variety of special events and festivals annually. The Qingdao International Beer Festival, for example, attracts an increasing number of overseas and domestic tourists to Qingdao. This festival has been held for 19 years annually. It not only brings tourism revenues but also publicizes our city throughout the world.

City landscape/skyscrapers/modern buildings, facilities, transportation system and high technology were also heavily marketed, appearing between 41 and 11 times in the promotional materials. These descriptors are used to create a modern city image while, at the time, assuring potential consumers that Qingdao has the ability to make their trips easy and comfortable. Descriptions such as “high-class facilities for recreation and sports”, “important commercial port in eastern China”, and “air routes to more than 20 countries” were used in the texts, while pictures of highways and manufacturing assembly lines were used as visual evidence.

The importance of the modern city image was mentioned by three key informants. They stated that the promotion of this image centered on the portrayal of facilities that visitors might need. As Key Informant E stated:

We have emphasized the modern atmosphere of our city in our marketing initiatives. We want to show outsiders that we are a business centre and that we have the advanced facilities and equipment to meet needs of any kind.

The descriptor European style architecture relates mainly to the architecture that was built during colonial times by the Germans, Russians, Spanish, French and Danish. This descriptor largely portrays Qingdao as a gallery of international architecture or a world architectural museum in the text of the promotional materials. Pictures of churches and castles of different building styles were used to reflect this feature. This descriptor was considered to be an important projected image component by all key informants. The illustration by two interviewees indicates the use of European style architecture as a main image theme:

European style architecture has been used as a selling point [of Qingdao] for several decades. We have about 360 exotic historical buildings left in the old town up to today. These various styles of architecture endow the city with an exotic feature, making the city distinctive from other destinations in the world. Because the majority of these buildings were European styled, particularly German styled, they have been highlighted in the promotional materials. Actually, the theme of European style architecture has been used in all government documents of Qingdao (Key Informant A).

European style architecture has long been a main theme used to promote Qingdao. German architect Lind had the following comments on Qingdao's historical architecture: German architecture in Qingdao has been very well preserved. In contrast, architecture built during the same period in Germany has been largely destroyed due to wars and reconstruction. Therefore, the well-preserved 'colonial European city' in Qingdao has more German features than Germany (Key Informant C).

Other tourism-oriented aspects were also reflected in the promotional materials, taking the form of squares, places for vacations and holidays, seafood, beaches, golf, shopping, historical and cultural attractions, weather, a place for sightseeing and a place for water sports. These descriptors were used to illustrate that the city has a lot to see and do. Portrayals such as

diverse ethnic attractions, pleasant weather, and places suitable for vacationing were used to depict activities and opportunities for tourists to undertake in a pleasant environment. Pictures of seafood and people picking up shells on the seashore were examples of the visual evidence that was provided.

4.2 Images Perceived by Visitors and Residents

4.2.1 Demographic Profiles of Participants

The socio-demographic characteristics of respondents can be found in Table 4.2. The visitor group consisted of 578 individuals, and the resident group consisted of 337. For both groups, the sex of the participants was almost evenly distributed, with 50.5 percent males and 49.5 percent females in the visitor group and 46.6 percent males and 53.4 percent females in the resident group. The age distribution of respondents in the two groups was also fairly similar. The largest population demographic was the 25-44 age group (52.4% visitors and 42.7% residents), followed by the 18-24 age group (25.8% visitors and 33.5% residents), and the 45 and over age group (21.8% visitors and 23.7% residents). Most respondents had attended college, university, or graduate school (80.1% visitors and 68.3% residents). Additionally, 19.9 percent of visitors and 31.8 percent of residents had a high school or less than high school education.

The largest occupation group of visitors was professionals (21.8%), followed by skilled workers (19.4%), students (18.5%), the retired (17.5%), service and clerical workers (16.1%), and the self-employed (5.8%). As for residents, professionals held the highest percentage (29%). This was followed by students (21.9%), service and clerical workers (21.1%), and the

self-employed (10.8%). The skilled worker and retired groups were next (both 8.2%). For both visitor and resident groups, a few participants reported that they had different occupations (from those listed above). As the number in the group of others was small for both visitors and residents, this category was excluded from further analysis.

Table 4. 2 Socio-demographic Characteristics of Respondents

Characteristic attribute	Visitors (n=578)		Residents (n=337)	
	n	%	n	%
Sex				
Male	292	50.5	157	46.6
Female	286	49.5	180	53.4
Age				
18 to 24 years old	149	25.8	113	33.5
25 to 44 years old	303	52.4	144	42.7
45 and over	126	21.8	80	23.7
Education				
High school or lower	115	19.9	107	31.8
College or higher	463	80.1	230	68.3
Occupation				
Professionals	108	21.8	81	29.0
Skilled workers	96	19.4	23	8.2
Service & clerical workers	80	16.1	59	21.1
Self-employed	29	5.8	30	10.8
Students	92	18.5	61	21.9
Retired	87	17.5	23	8.2
Others	4	.8	2	.7
Place of residence				
Shandong Province	159	29.4		
* Eastern China	174	32.2		
Central China	93	17.2		
Western China	40	7.4		
**Asia countries, Hongkong and Macau	53	9.8		
Other countries	22	4.1		
Length of residence				
1 to 9 years			82	27.2
10 to 19 years			70	23.3
20 to 29 years			86	28.6
30 to 39 years			45	15.0
40 years and more			18	6

*Excluding Shandong Province, **Excluding China

The above description of the socio-demographic characteristics of residents and visitors

reveals only small differences in these characteristics. As such, any differences in the images of Qingdao that they possess are unlikely to be attributable to these variables.

Table 4.2 also shows that 29.4 percent of participants were from Shandong Province (the province in which Qingdao is located) and 32.2 percent came from other areas of Eastern China. In addition, respondents who lived in Central and Western China accounted for 17.2 percent and 7.4 percent of visitors respectively. The remaining visitors came from other Asian countries, Hongkong and Macau (9.8%), and other countries (4.1%), including those in North America (1.7%), Europe (1.5%), and Australia and New Zealand (0.9%). Thus, the tourist images that are presented are predominantly those of a domestic clientele. In the case of residents, 28.6 percent of participants reported that they had lived in Qingdao for 20-29 years. The second largest group was 1-9 years, which included 27.2 percent of residents. The other two groups, 10-19 years and 30-39 years, accounted for 23.3 percent and 15 percent of resident participants. A small number of participants have lived there for 40 years or more (6%). Thus, although Qingdao has grown substantially in recent decades, the resident respondents were mostly people who had lived in the city for a considerable period of time.

4.2.2 Images Perceived by Visitors and Residents

This section portrays visitors' and residents' images of Qingdao. These results include three parts: (1) content analysis of the overall images held by visitors and residents, emphasizing the most frequently mentioned image descriptors (those that were mentioned by at least 10% of respondents) for each of the two open-ended questions; (2) respondents' images of the quality (5-point Likert scale) of each cognitive and affective attribute; and (3) respondents' evaluations

of the importance of each cognitive attribute in forming their images of Qingdao based on the number of participants who deemed these attributes important.

4.2.2.1 Images of Qingdao Perceived by Visitors

Overall Images

Table 4.3 lists the responses provided by more than 10 percent of the visitors to the first open-ended question. Respondents were asked to describe the images or characteristics that came to their minds when they thought of Qingdao as a tourism destination. The most popular answers were scenery/beautiful (52%), happy/free of worry/laid back (37.4%), attractive city

Table 4. 3 Visitors' Responses to Open-ended Question One (n=179)

Image descriptors	Number	Percentage
Scenery/beautiful	93	52
Happy/free of worry/laid back	67	37.4
Attractive city	52	29.1
Local people/hospitable/friendly/nice/helpful	50	27.9
Seafood/variety of seafood/good seafood	44	24.6
Fun/festive	39	21.8
Beer/good beer	37	20.7
Cultural attractions	36	20.1
Beaches/charming/beautiful	31	17.3
Pleasant weather	31	17.3
Unique ethnic attractions	30	16.8
Cleanliness/clean streets	29	16.2
Modern/developed city	27	15.8
Architecture/European style/charming/unique	27	15.8
Good tourism destination	26	14.5
Excellent service	24	13.4
Vital	24	13.4
Good public order	22	12.3
Good summer resort	21	11.7
Safe place	20	11.2
Cost/expensive	20	11.2

(29.1%), and local people/hospitable/friendly/nice/helpful (27.9%). These were followed by seafood/variety of seafood/good seafood (24.6%), fun/festive (21.8%), beer/good beer (20.7%),

and cultural attractions (20.1%). Overall, respondents had a positive image of Qingdao. They focused on what to see and to do as well as the social environment of the city. Happy/free of worry/laid back are items that reflects the visitors' feelings about staying in Qingdao, which is a place that provides the chance to escape from the stress of work and the routine of daily life.

The second open-ended question focused on the atmosphere or mood that respondents expected to experience while visiting Qingdao. The responses given by more than 10 percent

Table 4. 4 Visitors' Responses to Open-ended Question Two (n=152)

Image descriptors	Number	Percentage
Relaxing/relaxed	56	34.8
Fun	50	31.1
Pleasant	44	27.3
Friendly	44	27.3
Safe	42	26.1
Peaceful/tranquil	31	19.3
Vital	30	18.6
Modern	24	14.9
Happy	22	13.7
Prosperous	20	12.4
Hospitable/welcoming	20	12.4
Fashionable	20	12.4
Harmonious	18	11.2
Romantic	17	10.6
Open	17	10.6

of the visitors are presented in Table 4.4. Relaxing/relaxed (34.8%), fun (31.1%), pleasant (27.3%), and friendly (27.3%) were the most frequently reported responses, followed by safe (26.1%), peaceful/tranquil (19.3%), and vital (18.6%). It seems that respondents, again, as befits a person on holiday, wished to be away from pressure and stress, and desired a relaxed, pleasant, and fun environment. In general, respondents expected to experience a positive mood or atmosphere while they were in Qingdao. Very few negative evaluations were made in response to either of the open-ended questions and, in no case, was such an attribute made by more than 10 percent of respondents.

Cognitive Images

Table 4.5 shows the mean scores for the cognitive image attributes of visitors. As can be seen, respondents' ratings of all of the 26 cognitive attributes fell from neutral towards the positive end of the scale. Seafood received the highest score (4.45), followed by scenery (4.41), beaches (4.37), and local people (4.30). Fifteen attributes fell between the good and very good categories with mean scores greater than four. These attributes included seafood, scenery, beaches, local people, green space, special events, ethnic attractions, weather, squares, architecture, relaxing atmosphere, resorts, hygiene and cleanliness, cultural attractions, and golf courses. Another eleven attributes received a mean score that fell between the neutral and good categories. These attributes included the highway system, accommodations, public transport, shopping, fashion shows, value for money, transportation costs, nightlife, football games, airline schedules, and traffic congestion. None of the mean scores of cognitive attributes fell into the poor and very poor categories.

Overall, respondents' cognitive images of Qingdao were situated from neutral towards the positive end of the scale. Most of the respondents had very good images regarding what to see, what to do, and the city's natural and social environments. The results also indicate that respondents had relative neutral images concerning Qingdao's accessibility, its infrastructure, facilities, expense and entertainment.

Table 4.5 also reports the percentage of visitors who believe that the cognitive attributes are important. The most frequently specified important attributes were beaches (57.4%), seafood (40%), special events (38.6%), weather (34.8%) and ethnic attractions (31%), followed by scenery (30.8%), cultural attractions (29.1%), and hygiene and cleanliness

(21.8%). The least frequently reported important attributes were golf courses (5.5%),

Table 4. 5 Cognitive Images of Qingdao Perceived by Visitors

	No. of respondents	Mean	SD	Rank	Percentage of visitors who deemed them important	Rank
*Cognitive image						
Seafood	568	4.45	.76	1	40.0	2
Scenery	569	4.41	.71	2	30.8	6
Beaches	567	4.37	.73	3	57.4	1
Local people	566	4.30	.77	4	10.7	14
Green space	576	4.29	.71	5	9.2	19
Special events	530	4.29	.72	6	38.6	3
Ethnic attractions	543	4.27	.72	7	31.0	5
Weather	575	4.25	.74	8	34.8	4
Squares	569	4.25	.71	9	8.1	21
Architecture	567	4.24	.76	10	10.4	15
Relaxing atmosphere	571	4.17	.76	11	13.3	13
Resorts	541	4.15	.76	12	5.7	23
Hygiene and cleanliness	571	4.10	.79	13	21.8	8
Cultural attractions	573	4.09	.81	14	29.1	7
Golf course	389	4.07	.70	15	5.5	24
Highway system	565	3.98	.86	16	9.8	16
Accommodation	577	3.97	.75	17	7.8	22
Public transport	528	3.97	.82	18	15.4	10
Shopping	564	3.90	.86	19	14.7	11
Fashion shows	369	3.88	.80	20	1.0	26
Value for money	565	3.79	.93	21	9.7	17
Transportation cost	551	3.76	.82	22	21.6	9
Night life	540	3.72	.89	23	9.5	18
Football games	411	3.69	.89	24	1.9	25
Airline schedules	526	3.68	.88	25	9.0	20
Traffic congestion	561	3.35	1.03	26	13.5	12

Notes: * 1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

football games (1.9%) and fashion shows (1.0%). The results indicate that participants gave more weight to attributes that represent Qingdao's local features. For example, the ethnic attractions in Qingdao exhibit an exotic feature that is unique from other tourism destinations. This feature has been publicized for several decades and the description of the "red roofs of buildings, surrounded by green trees with green sea and blue sky as the natural backdrop,"

which was written by a famous Chinese writer, is very well known in China. Less consideration was given to attributes such as golf courses, football games and fashion shows because visitors may not be familiar with or interested in these activities and events. Consequently, respondents may give little weight to these attributes when constructing their images of Qingdao.

Table 4.5 further shows the rankings of the 26 cognitive image attributes with regard to their mean scores and the percentage of participants who deemed these attributes important. Of the 15 attributes that had a mean score greater than four, eight attributes were on participants' "top-ten" list with regard to the percentage of visitors who deemed these attributes important. These attributes include seafood, scenery, beaches, special events, ethnic attractions, weather, hygiene and cleanliness, and cultural attractions. These eight attributes reflect visitors' preferences about Qingdao based on the attributes' quality and relative importance. Therefore, they are of great importance to Qingdao's marketing toward visitors.

The other seven attributes (i.e., local people, green space, squares, architecture, resorts, golf course, and relaxing atmosphere) that also had a mean score greater than four did not receive a high ranking (ranging from 13 to 24) with regard to the percentage of participants who deemed these attributes important. This indicates that fewer visitors considered these attributes important in constructing their images of Qingdao, although the visitor group had a more positive image regarding these attributes.

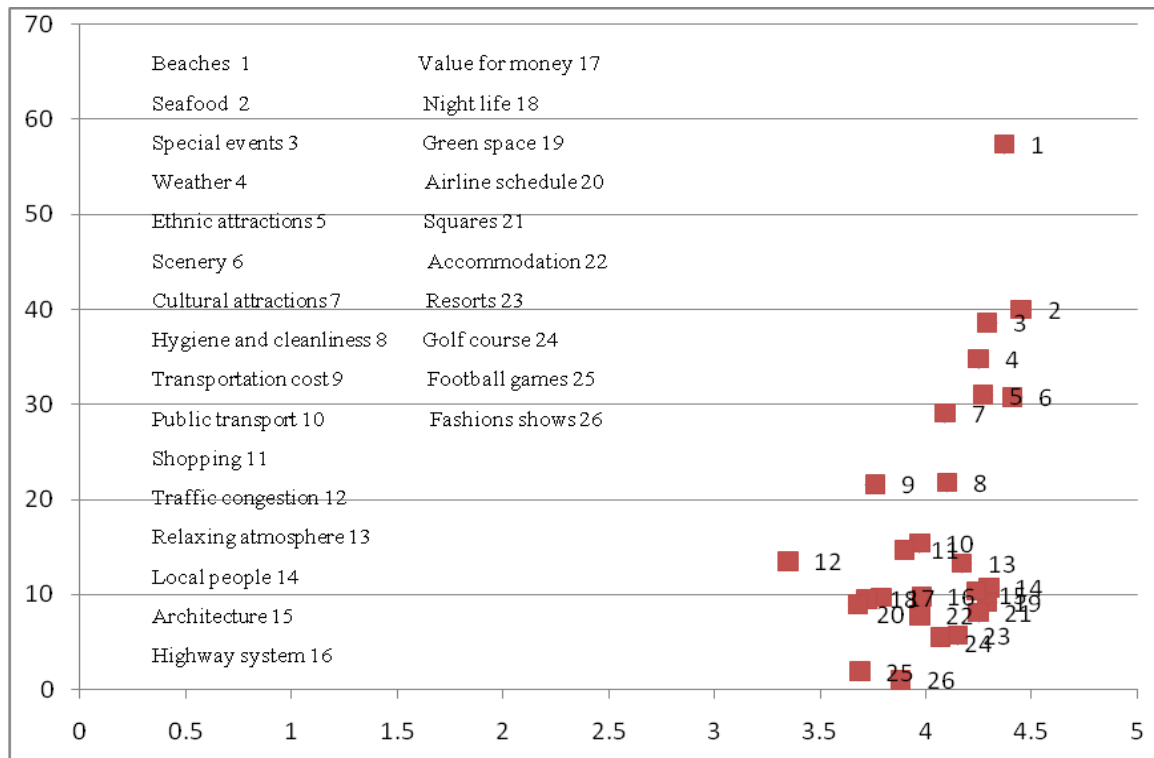
Of the 11 attributes that were rated moderately, with mean values between three and four, the rankings of four attributes (i.e., public transport, shopping, transportation cost, and traffic congestion) ranged from 9 to 12 with regard to the percentage of participants who deemed these attributes important. Although these four attributes were considered important by

relatively more visitors, their quality was not considered very good based on the visitors' opinions.

Seven other attributes (i.e., highway system, accommodation, fashion shows, value for money, night life, football games, and airline schedules) that were also moderately rated were ranked lower with regard to the percentage of visitors who deemed them important. These attributes are of less quality and importance in the eyes of visitors. Thus, it may not be necessary to emphasize these attributes in the projected images for marketing Qingdao, and actions should be taken to improve the weaknesses related to these attributes.

A grid (Figure 4.1) was created to display visitors' evaluations of the 26 attributes based on their values of quality and importance. The mean values indicating the attributes' quality are arrayed on the horizontal axis while the importance value (percentage of visitors who deemed the attribute important) forms the vertical axis. The placements are concentrated on the right side of the grid, indicating that visitors gave mostly positive ratings for the quality of attributes. However, visitors' ratings on the importance of the attributes differed greatly. Eight spots (seafood, scenery, beaches, special events, ethnic attractions, weather, hygiene and cleanliness, and cultural attractions) in the upper right area received the highest ratings for both quality and importance. These attribute-related aspects and tourism products satisfied visitors when they visited Qingdao. These attributes are meaningful to represent Qingdao in tourists' eyes and, therefore, should be emphasized in promoting the city to visitors. Conversely, the spots in the bottom, especially those in the bottom-left of the diagram, indicate weaknesses of Qingdao in terms of its tourism products or attribute-related aspects such as fashion shows and traffic congestion. Although these aspects deserve

Importance (%)



Quality (mean)

Figure 4. 1 Cognitive Images of Qingdao Perceived by Visitors

attention for improvement, they should not be a prominent part of the promotion of the city.

Affective Images

Table 4.6 shows the mean scores of the four affective images attributes. Visitors rated highly on all these attributes, exciting-gloomy, pleasant-unpleasant, arousing-sleepy and relaxing-distressing, with all mean scores being greater than four. This indicates that the majority of the respondents had very positive feelings regarding these affective attributes of Qingdao, regarding Qingdao as an exciting, pleasant, arousing and relaxing place.

Table 4. 6 Affective Images of Qingdao Perceived by Visitors

	No. of respondents	Mean	SD
*Affective image			
Exciting-gloomy	578	4.34	.71
Pleasant-unpleasant	578	4.25	.75
Arousing-sleepy	578	4.32	.72
Relaxing-distressing	578	4.35	.72

Notes: * 1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

4.2.2.2 Images of Qingdao Perceived by Residents

Overall Images

Table 4.7 shows the descriptors mentioned by at least 10 percent of the resident respondents regarding the images or characteristics of Qingdao. Scenery/beautiful (30.9%), local people/hospitable/friendly/nice/helpful (27%), time-honored Taoist culture (25.7%), and seafood/variety of seafood/good seafood (24.3%) were the most common responses, followed by beaches/charming/beautiful (18.4%), unique ethnic attractions (18.4%), cleanliness/clean streets (18.4%), and good tourism destination (18.4%). The results suggest that the residents' images focused on not only what is offered to visitors, but also on the cultural and social aspects of Qingdao, the latter of which could be evoked in part by their positions as hosts.

Table 4. 7 Residents' Responses to Open-ended Question One (n=161)

Image descriptors	Number	Percentage
Scenery/beautiful	47	30.9
Local people/hospitable/friendly/nice/helpful	41	27.0
Time-honored Taoist culture	39	25.7
Seafood/variety of seafood/good seafood	37	24.3
Beaches/charming/beautiful	28	18.4
Unique ethnic attractions	28	18.4
Cleanliness/clean streets	28	18.4
Good tourism destination	28	18.4
Pleasant weather	27	17.8
Good summer resort	23	15.1
Cultural attractions	20	13.2
Architecture/European style/charming/unique	20	13.2
Beer/good beer	18	11.8
Excellent service	17	11.2

Table 4.8 reports residents' opinions about the atmosphere or mood of Qingdao. Peaceful/tranquil (36%), friendly (34.5%), and hospitable/welcoming (33.1%) were the most frequently mentioned answers, followed by cozy (27.3%), vital (23%), and modern (21.6%). These results, to some extent, reflected the residents' positions as the hosts. Feelings, such as friendly and hospitable/welcoming, may have been strengthened by the propaganda for the Olympic Games sailing events held in 2008. Noisy was also suggested by 12.2 percent of the

Table 4. 8 Residents' Responses to Open-ended Question Two (n=139)

Image descriptors	Number	Percentage
Peaceful/tranquil	50	36
Friendly	48	34.5
Hospitable/welcoming	46	33.1
Cozy	38	27.3
Vital	32	23
Modern	30	21.6
Pleasant	27	19.4
Happy	27	19.4
Harmonious	23	16.5
Relaxing/relaxed	21	15.1
Noisy	17	12.2

respondents, suggesting that there is substantial concern among some of the residents that the

development of tourism is having a negative impact on the quality of their lives in this respect.

Cognitive Images

Table 4.9 presents the residents' evaluations of the cognitive attributes of Qingdao. The mean scores of 25 out of 26 attributes ranged from the neutral to very good categories. The most highly rated attributes were beaches, seafood, scenery, the local people, weather, and green space (mean > 4.37), followed by hygiene and cleanliness, architecture, squares, special events, ethnic attractions, resorts, highway system, relaxing atmosphere, and golf courses, all

Table 4.9 Cognitive Images of Qingdao Perceived by Residents

	# of residents	Mean	Mean rank	SD	% of residents who deemed them important	Rank
<i>*Cognitive image</i>						
Beaches	337	4.64	1	.59	49	1
Seafood	337	4.62	2	.58	45.1	2
Scenery	332	4.52	3	.82	38.6	4
Local people	333	4.38	4	.84	36.2	6
Weather	337	4.37	5	.70	39.5	3
Green space	337	4.37	5	.72	33.8	7
Hygiene and cleanliness	337	4.34	6	.71	38.3	5
Architecture	337	4.31	7	.74	25.8	11
Squares	337	4.30	8	.72	17.8	17
Special events	323	4.30	8	.75	28.8	10
Ethnic attractions	332	4.25	9	.87	31.5	9
Resorts	332	4.19	10	.79	11.6	23
Highway system	337	4.18	11	.89	18.1	16
Relaxing atmosphere	337	4.07	12	.83	33.8	7
Golf course	280	4.02	13	.87	11.0	24
Public transport	332	3.98	14	.92	19	15
Accommodation	337	3.95	15	.73	13.9	21
Airline schedules	314	3.95	15	.80	17.6	18
Shopping	337	3.82	16	.98	16.6	20
Fashion shows	309	3.80	17	.77	6.2	26
Football games	314	3.76	18	.81	12.2	22
Transportation cost	332	3.76	18	.96	24	13
Cultural attractions	337	3.75	19	1.17	25.2	12
Value for money	337	3.72	20	.88	19.6	14
Night life	316	3.69	21	.97	10.7	25
Traffic congestion	314	2.89	22	1.02	17.5	19

Notes: * 1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

of which received mean scores greater than four. This indicates that most of the respondents had very positive images regarding what Qingdao offers as a place to live, as well as of the city's natural and social environments. The results also show that ten attributes, including public transport, accommodations, airline schedules, shopping, fashion shows, football games, transportation cost, cultural attractions, value for money, and night life, received a mean score that fell between the neutral and good categories. It may be surprising to see that cultural attractions fell into this category; however, this may be because residents take these for granted and they may not be as popular as other attributes of Qingdao in residents' minds. One attribute, traffic congestion, was given a low rating with a mean score of 2.89, suggesting that local residents considered traffic to be an issue in Qingdao.

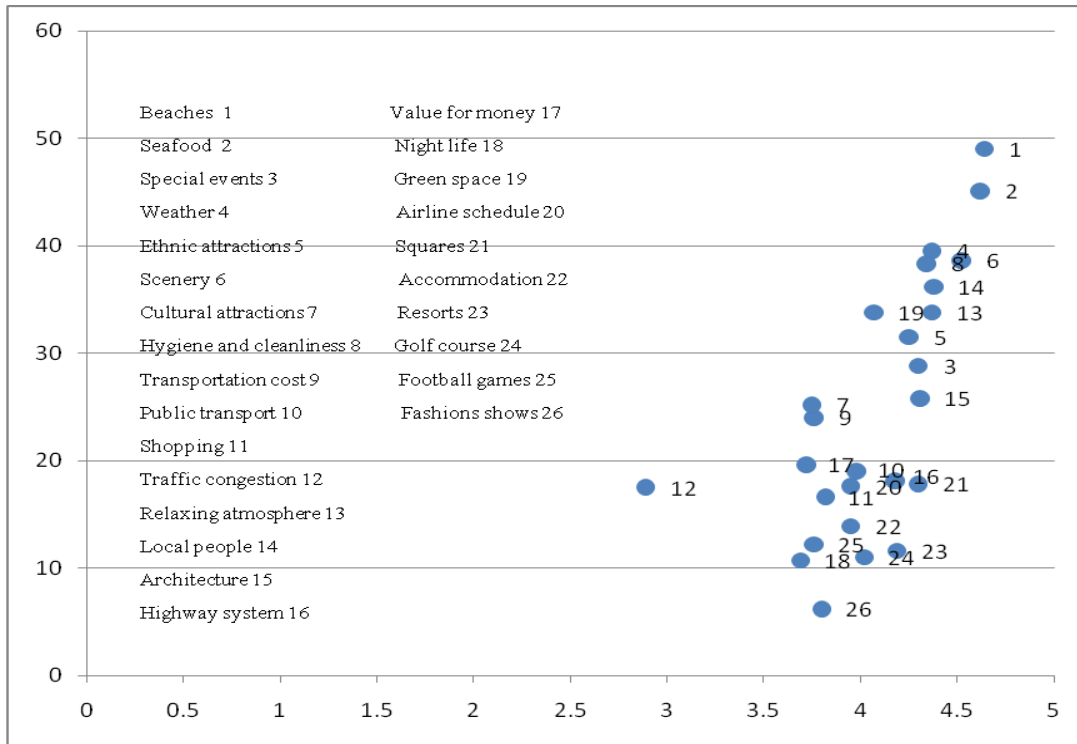
Table 4.9 also presents resident respondents evaluations of the importance of each cognitive attribute. The most frequently mentioned important attributes by participants were beaches (49%), seafood (45.1%), weather (39.5%), scenery (38.6%), and hygiene and cleanliness (38.3%), followed by local people (36.2%), green space (33.8%), relaxing atmosphere (33.8%), ethnic attractions (31.5%), and special events (28.8%). This indicates that coastal characteristics, natural and social environments, and what is offered to visitors were important in constructing residents' images of Qingdao. Golf courses (11%), night life (10.7%), and fashion shows (6.2%) were considered to be the least important in forming respondents' images of the city. This may be because activities such as golf, night life and watching fashion shows were not part of most respondents' consumption patterns and interests. As a result, respondents seldom pay attention to these aspects of Qingdao and do not emphasize these attributes in forming their images of Qingdao.

Table 4.9 further shows the rankings of the 26 cognitive image attributes with regard to their mean scores and the percentage of residents who deemed these attributes important. Of the 15 attributes that had a mean score greater than four, 11 attributes were among participants' top-ten picks with regard to the percentage of residents who deemed these attributes important. These attributes include beaches, seafood, weather, scenery, hygiene and cleanliness, local people, green space, relaxing atmosphere, ethnic attractions, special events, and architecture. These 11 attributes indicate residents' preferences about Qingdao based on the attributes' quality and importance. Therefore, they are of great importance to Qingdao's marketing toward residents.

The other four attributes (i.e., squares, resorts, highway system, and golf course) that also had a mean score greater than four did not receive a high ranking (ranging from 16 to 23) with regard to the percentage of residents who deemed these attributes important. This indicates that fewer residents considered these attributes important in constructing their images of Qingdao, although many of the residents had a positive image regarding these attributes.

Ten attributes (i.e., cultural attractions, transportation cost, value for money, public transport, accommodation, airline schedules, shopping, fashion shows, football games, and night life) that were moderately rated, with mean values between three and four, were ranked moderate or low with regard to the percentage of residents who deemed them important. In addition, traffic congestion, was both rated low (mean < 3) and ranked low with regard to the percentage of residents who deemed it important. These eleven attributes were the weaknesses of Qingdao according to residents and they should not be included in the projected images for marketing Qingdao toward residents. Action should be taken to improve these weaknesses.

Importance (%)



Quality (mean)

Figure 4. 2 Cognitive Images of Qingdao Perceived by Residents

Figure 4.2 provides a visual presentation of residents' evaluations of the 26 attributes based on their values of quality and importance. The mean values indicating the attributes' quality are arrayed on the horizontal axis while the importance values (percentage of residents who deemed the attribute important) are displayed on the vertical axis. The points on the right part of the grid indicate that residents had a more positive response to the quality of these attributes. Residents' ratings of the importance of the attributes differed greatly. Eleven spots (beaches, seafood, weather, scenery, hygiene and cleanliness, local people, green space, relaxing atmosphere, ethnic attractions, special events, architecture) in the upper-right area were highly rated by residents for both their quality and importance. These eleven attributes should be emphasized when promotional programs are geared toward residents of Qingdao. In contrast, the attributes in the lower part, especially in the bottom-left of the diagram, represent the weaknesses of Qingdao as a tourism destination from the perspective of residents. Consequently, these attribute-related aspects need improvement, but these attributes should not be used as prominent image themes to attract residents' attention.

Affective Images

Table 4.10 reports the residents' evaluations of the four affective image attributes. It can be seen that respondents gave a high rating to all of the four affective attributes (mean>4.43).

Table 4. 10 Affective Images of Qingdao Perceived by Residents

	No. of respondents	Mean	SD
*Affective image			
Exciting-gloomy	337	4.48	.67
Relaxing-distressing	337	4.38	.68
Pleasant-unpleasant	337	4.42	.65
Arousing-sleepy	337	4.43	.71

Notes: *1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

This indicates that most of the respondents held positive feelings toward Qingdao, regarding it

as an exciting, relaxing, pleasant, and arousing place to live.

4.3 Similarities and Differences between Images of Visitors and Residents

4.3.1 Similarities and Differences between Cognitive Images of Visitors and Residents

A Mann-Whitney *U* test was employed to determine whether there were significant differences between each individual cognitive attribute of Qingdao perceived by visitors and residents. The results of each comparison are presented in Table 4.11. As can be seen, significant differences were found in 10 cognitive attributes, including seafood, cultural attractions, highway system, traffic congestion, airline schedules, local people, beaches, weather, scenery, and hygiene and cleanliness ($p < .05$). Of all of these attributes, visitors had more positive images than residents in two attributes (i.e., cultural attractions and traffic congestion), while they had worse images than residents in 8 attributes (i.e., seafood, highway system, airline schedules, local people, beaches, weather, scenery, and hygiene and cleanliness). Visitors may not be as familiar as residents with Qingdao's strengths and weaknesses due to their short stay. For example, they may not experience any traffic congestion during their stay in the city. Therefore, they rated this attribute high. Visitors' high scores for traffic congestion could also be explained by the fact that the traffic conditions in Qingdao may be better than that in visitors' home cities. Visitors also may be more interested in cultural attractions in Qingdao than residents because these attractions may be exotic to them. However, lack of familiarity with the city could also mean that some visitors are less aware of some strengths of Qingdao, such as seafood and scenery. Accordingly, visitors may not rate these attributes as highly as residents.

Table 4. 11 Comparison between Cognitive Images of Visitors and Residents

	Visitor			Resident			Z	P
	n	mean	Importance (ranking of %)	n	mean	Importance (ranking of %)		
Cognitive image ^a								
Seafood	568	4.45	2	337	4.62	2	-3.039	.002*
Accommodation	577	3.97	22	337	3.95	21	-.456	.649
Shopping	564	3.90	11	337	3.82	20	-.502	.616
Cultural attractions	573	4.09	7	337	3.75	12	-3.424	.001*
Highway system	565	3.98	16	337	4.18	16	-3.861	<.001**
Traffic congestion	561	3.35	12	314	2.89	19	-6.198	<.001**
Airline schedules	526	3.68	20	314	3.95	18	-4.177	<.001**
Transportation cost	551	3.76	9	332	3.76	13	-.613	.540
Public transport	528	3.97	10	332	3.98	15	-.780	.435
Night life	540	3.72	18	316	3.69	25	-.417	.676
Relaxing atmosphere	571	4.17	13	337	4.07	7	-1.575	.115
Local people	566	4.30	14	333	4.38	6	-2.166	.030*
Football games	411	3.69	25	314	3.76	22	-.401	.688
Beaches	567	4.37	1	337	4.64	1	-5.975	<.001**
Weather	575	4.25	4	337	4.37	3	-2.254	.024*
Green space	576	4.29	19	337	4.37	7	-1.656	.098
Squares	569	4.25	21	337	4.30	17	-.983	.326
Resorts	541	4.15	23	332	4.19	23	-.741	.459
Scenery	569	4.41	6	332	4.52	4	-3.501	<.001**
Ethnic attractions	543	4.27	5	332	4.25	9	-.626	.531
Golf course	389	4.07	24	280	4.02	24	-.178	.859
Special events	530	4.29	3	323	4.30	10	-.276	.783
Fashion shows	369	3.88	26	309	3.80	26	-1.328	.184
Architecture	567	4.24	15	337	4.31	11	-1.505	.132
Value for money	565	3.79	17	337	3.72	14	-1.597	.110
Hygiene and cleanliness	571	4.10	8	337	4.34	5	-4.398	<.001**

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. * $P<.005$ ** $P<.001$

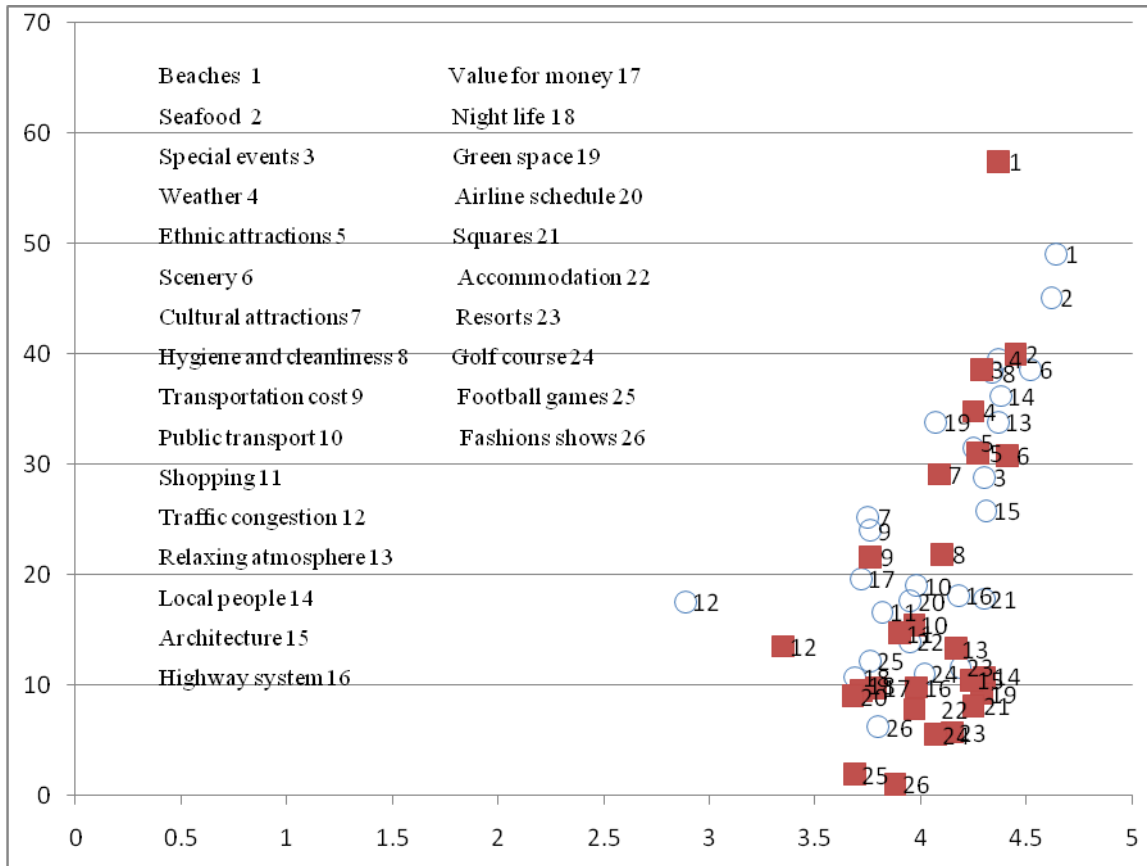
Of the ten attributes identified which significantly differed between visitors and residents, three of them were related to transportation. Visitors had a more positive image of traffic congestion than residents, while they had a worse image of the highway system and airline schedules than residents. One possible reason for this is that visitors and residents have different points of references when evaluating these attributes. For example, visitors may compare the airline schedules and highway system of Qingdao to those in other big

cities such as Beijing, finding that the airline schedules and highway system are not as convenient as those in Beijing. As a result, they may not rate these two attributes as highly as residents. Also, the motivations for using transportation systems may differ between the two groups.

No significant differences were found in participants' images of 16 cognitive attributes, including accommodation, shopping, transportation cost, public transport, night life, relaxing atmosphere, football games, green space, squares, resorts, ethnic attractions, golf course, special events, fashion shows, architecture, and value for money ($p > .05$). Of these 16 attributes, 8 attributes were highly rated by both visitors and residents with mean scores greater than four. These attributes included relaxing atmosphere, green space, squares, resorts, ethnic attractions, golf, special events, and architecture. These 8 attributes were attractive for both visitors and residents; therefore, they are the strengths of Qingdao as a tourism attraction. However, considering the importance of these 8 attributes, only two (ethnic attractions and special events) were on both the visitors' and residents' top-ten ranking lists concerning the percentage of visitors and residents who deemed these attributes important. These two attributes should be used in the projected images for marketing the city.

Both the visitors' and residents' evaluations of the cognitive images are presented in Figure 4.3 based on their values of quality and importance. Visitors and residents shared the same preferences for eight attributes (beaches, seafood, special events, weather, ethnic attractions, scenery, cultural attractions, hygiene and cleanliness) with regard to both quality and importance. These attributes are of critical importance to Qingdao's image marketing and should be used as main image themes in projecting the city. Both visitors and residents highly

Importance (%)



Quality (mean)

Figure 4. 3 Cognitive Images of Qingdao Perceived by Visitors and Residents

favoured the coastal characteristics of Qingdao, with beaches and seafood receiving the highest ratings. This implies that the coastal characteristics should be prominent in promoting Qingdao although they do not seem to help differentiate the city clearly from other coastal destinations.

4.3.2 Similarities and Differences between Affective Images of Visitors and Residents

Table 4.12 presents the results of the Mann-Whitney *U* test that was used to determine whether significant differences existed between affective images of visitors and residents. It was found that visitors' ratings were significantly different from those of residents in two attributes: arousing-sleepy and exciting-gloomy. Residents were more likely to feel aroused and excited about Qingdao than visitors. No significant differences were found in participants' ratings of the other two affective attributes, pleasant-unpleasant and relaxing-distressing, although residents appeared to feel slightly (but not significantly) more pleasant and relaxed in Qingdao than visitors. Table 4.12 also demonstrates that residents felt more aroused, excited, pleasant, and relaxed than visitors for all four affective attributes. This may perhaps be explained by the different levels of attachment to Qingdao held by visitors and residents.

Table 4. 12 Comparison between Affective Images of Visitors and Residents

	Visitor		Resident		<i>Z</i>	<i>P</i>
	<i>n</i>	mean	<i>n</i>	mean		
Affective image ^a						
Arousing-sleepy	578	4.34	337	4.48	-3.075	.002*
Exciting-gloomy	578	4.25	337	4.38	-2.617	.009*
Pleasant-unpleasant	578	4.32	337	4.42	-1.843	.065
Relaxing-distressing	578	4.35	337	4.43	-1.858	.063

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**P*<.005

4.3.3 Similarities and Differences between Overall Images of Visitors and Residents

Table 4.13 summarizes the overall image descriptors mentioned by more than 10 percent of visitors and residents when answering the two open-ended questions. As can be seen, 22 descriptors were generated by both participant groups. Chi-square tests were used to investigate whether significant differences existed between these 22 descriptors. The results are presented in Table 4.13.

Visitors were found to differ significantly from residents in terms of their image attributes regarding scenery/beautiful, beer/good beer, relaxing/relaxed, peaceful/tranquil, and hospitable/welcoming. Specifically, visitors had much higher percentiles for scenery, beer/good beer, and relaxing/relaxed than did residents. To the contrary, residents had much higher percentiles for peaceful/tranquil and hospitable/welcoming than did visitors. These differences could be a result of visitors and residents' differing roles of being guests and hosts. Visitors were more likely to focus on the travel-oriented aspects of Qingdao, while residents appeared to be more concerned with its social environment. No significant differences were found for the remaining descriptors.

Table 4.13 also lists the descriptors reported solely by visitors or residents. Regarding perceived attributes of Qingdao, only visitors mentioned happy/free of worry/laidback, attractive city, fun/festive, modern/developed city, vital, good public order, safe place, and cost/expensive. Further, visitors identified fun, safe, prosperous, fashionable, and romantic as the mood or atmosphere they expected to experience in Qingdao. In contrast, only residents mentioned the time-honored Taoist culture as Qingdao's characteristics. Additionally,

Table 4. 13 Comparison between Overall Images of Visitors and Residents

Image descriptor	Visitor #	Visitor %	Resident #	Resident %	X^2	p
*Images or characteristics of Qingdao						
Scenery/beautiful	93	52	47	30.9	18.132	<.001
Local people/hospitable/friendly/nice/helpful	50	27.9	41	27.0	.263	.608
Seafood/variety of seafood/good seafood	44	24.6	37	24.3	.120	.730
Beer/good beer	37	20.7	18	11.8	5.630	.018
Cultural attractions	36	20.1	20	13.2	3.643	.056
Beaches/charming/beautiful	31	17.3	28	18.4	.000	.986
Pleasant weather	31	17.3	27	17.8	.018	.893
Unique ethnic attractions	30	16.8	28	18.4	.024	.877
Cleanliness/clean streets	29	16.2	28	18.4	.086	.769
Architecture/European style/charming/unique	27	15.8	20	13.2	.504	.478
Good tourism destination	26	14.5	28	18.4	.521	.470
Excellent service	24	13.4	17	11.2	.649	.421
Good summer resort	21	11.7	23	15.1	.491	.484
Happy/free of worry/lain back	67	37.4				
Attractive city	52	29.1				
Fun/festive	39	21.8				
Modern/developed city	27	15.8				
Vital	24	13.4				
Good public order	22	12.3				
Safe place	20	11.2				
Cost/expensive	20	11.2				
Time-honored Taoist culture			39	25.7		
**Mood or atmosphere						
Relaxing/relaxed	56	34.8	21	15.1	17.625	<.001
Pleasant	44	27.3	27	19.4	3.570	.059
Friendly	44	27.3	48	34.5	1.048	.306
Peaceful/tranquil	31	19.3	50	36	8.770	.003
Vital	30	18.6	32	23	.467	.494
Modern	24	14.9	30	21.6	1.612	.204
Happy	22	13.7	27	19.4	1.271	.260
Hospitable/welcoming	20	12.4	46	33.1	16.455	<.001
Harmonious	18	11.2	23	16.5	1.328	.249
Fun	50	31.1				
Safe	42	26.1				
Prosperous	20	12.4				
Fashionable	20	12.4				
Romantic	17	10.6				
Cozy			38	27.3		
Noisy			17	12.2		

df=1 * Visitor (n=179), Resident (n=161) ** Visitor (n=152), Resident (n=139)

residents identified cozy and noisy as the mood or atmosphere they have experienced in Qingdao. Another finding is that the responses to the two open-ended questions overlapped to some extent. This should not be surprising because the two questions were not mutually exclusive. A mood or atmosphere of a destination could also be a characteristic of that place.

4.4 Relationship between Images projected by Qingdao and Images Perceived by Visitors

The results from the content analysis of brochures and the descriptive statistics from the survey data are presented side by side in Table 4.14. The projected images were represented by 18 image descriptors that appeared at least 10 times in the promotional materials. The perceived images of visitors were represented by the cognitive attributes (percentage of visitors who deemed the cognitive attributes important) and overall image descriptors (mentioned by more than 10% of participants) that are counterparts of the 18 projected image descriptors. Inferences were made to determine the relationships between the images projected by Qingdao and images perceived by visitors, as discussed below.

Natural scenery/mountain/forest/flora was the projected image descriptor that appeared most frequently (93 times) and thus the descriptor most emphasized by marketers. This descriptor was deemed the 6th most important cognitive image attribute of Qingdao. Additionally, it was mentioned by 52 percent of visitors when describing the images or characteristics of Qingdao. The results indicate that scenery was emphasized greatly in both the images projected by Qingdao and those perceived by visitors. The degree of importance ascribed to this attribute or the number of times it was mentioned by both groups cannot be compared directly, although the rankings assigned by the different groups suggest that this attribute was given different weight by marketers and visitors.

Table 4. 14 Images Projected by Qingdao and Images Perceived by Visitors

Projected image		Perceived image			
		Cognitive image		Overall image	
Descriptors	# of times appeared	Attributes	% of visitors who deemed it important/ranking	Descriptors	% of visitors who mentioned it
Natural scenery/mountain /forest/flora	93/1	Scenery	30.8/6	Scenery/beautiful	52
Special events/holding sailing events	55/2	Special events	38.6/3	Fun/festive	21.8
City landscape/skyscrapers/modern buildings	41/3			Attractive city	29.1
				Modern/developed city	15.8
European style architecture	38/4	Architecture	10.4/9	Architecture/European style/charming/unique	15.8
Facilities	31/5				
European feature attractions	23/6	Ethnic attractions	31/5	Unique ethnic attractions	16.8
Squares	21/7	Squares	8.1/10		
Beaches	20/8	Beaches	57.4/1	Beaches/charming/beautiful	17.3
Place for vacations and holidays	20/8			Good tourism destination	14.5
				Good summer resort	11.7
Transportation system/air routes to more than 20 countries/highway and railway networks	19/10				
Seafood	16/11	Seafood	40/2	Seafood/variety of seafood/good seafood	24.6
Place for sightseeing	14/12				
Golf	14/12	Golf courses	5.5/11		
Historical and cultural attractions	14/12	Cultural attractions	29.1/7	Cultural attractions	20.1
Shopping	13/15	Shopping	14.7/8		
Place for water sports	12/16				
Weather/pleasant weather	11/17	Weather	34.8/4	Pleasant weather	17.3
High technology	11/18				

Special events/holding sailing events was the second most emphasized theme (55 times)

by marketers. This theme was found in the perceived images as special events and was deemed

the 3rd most important attribute by visitors. The theme was also related to the overall image descriptor, fun/festive, which was mentioned by 21.8 percent of visitors. The results suggest that the projected and perceived images were consistent concerning the importance of special events/holding sailing events. However, it is not known whether the special events perceived by visitors included sailing events because Qingdao holds a variety of special events annually.

City landscape/skyscrapers/modern buildings appeared in the promotional materials 41 times. This descriptor did not have a counterpart in cognitive attributes. However, two overall image descriptors, attractive city and modern/developed city, overlap to some extent with the theme city landscape/skyscrapers/modern buildings. These two descriptors were mentioned by 29.1 percent and 15.8 percent of visitors, respectively. In this regard, it is possible that some aspects of the city landscape/skyscrapers/modern buildings were caught by visitors.

European-style architecture was the fourth most emphasized image descriptor (38 times) of the projected images. This descriptor was also considered important in visitors' perceived images in terms of two aspects. First, the cognitive attribute, architecture, was deemed the 9th most important attribute by visitors. Second, architecture/European style/charming/unique, was mentioned by 15.8 percent of visitors when describing the images or characteristics of Qingdao. These results indicate that the projected and perceived images of Qingdao were, to some extent, consistent regarding the importance of the city's European-style architecture, although the emphases assigned by the two groups may not be at the same level.

European feature attractions appeared in the promotional materials 23 times (the 6th most emphasized). This theme was found in the perceived images as ethnic attractions and was deemed the 5th most important attribute by visitors. This theme was mentioned by 16.8 percent

of visitors when describing the images or characteristics of Qingdao. The results suggest that the projected and perceived images were consistent concerning the importance of European feature attractions.

Beaches as an image attribute occurred in projected images 20 times (the 8th most emphasized). They were deemed the most important attribute by visitors and mentioned by 17.3 percent of visitors in their overall images. The results indicate that this theme was both a focus in the projected and perceived images of Qingdao. However, marketers and visitors emphasized this particular attribute to starkly differing degrees.

Place for vacations and holidays appeared in the promotional materials 20 times. This theme was not directly caught in the perceived images of visitors. However, it was reflected to some degree in two overall image descriptors, good tourism destination (14.5%) and good summer resort (11.7%). To the extent that all the visitors were on vacation, then this was an attribute that they accepted as demonstrated in their actions.

Seafood appeared in the promotional materials 16 times (the 11th most emphasized). This theme was deemed the second most important cognitive attribute by visitors and mentioned by 24.6 percent visitors in their overall images. This suggests that the projected and perceived images are similar to a considerable extent in terms of their emphasis on seafood. However, the extent to which the two groups (marketers and visitors) emphasized this attribute was quite different.

Historical and cultural attractions as an image theme appeared 14 times in the promotional materials (the 14th most emphasized). This theme was deemed the 7th most important attribute by visitors and was mentioned by 20.1 percent of visitors in their overall

images. The results indicate that both the projected and perceived images of Qingdao centered to some extent on historical and cultural attractions. However, this attribute seemed to be given different weight by marketers and visitors based on the rankings assigned by these two groups.

Golf, shopping and weather/pleasant weather were emphasized in both the projected and perceived images of Qingdao. These three themes appeared in the promotional materials 14, 13 and 11 times (the 13th, 15th, and 17th most emphasized), and visitors considered these themes the 11th, 8th, and 4th most important image attributes. Additionally, pleasant weather was also mentioned by 17.3 percent of visitors in their overall images of Qingdao. Therefore, the projected and perceived images of Qingdao were consistent concerning their focus on these three attributes, although with different levels of emphasis.

Other image descriptors emphasized by the promotional materials did not have direct counterparts in the images perceived by visitors. These descriptors include facilities, transportation system/air routes to more than 20 countries/highway and railway networks, place for sightseeing, place for water sports, and high technology. These descriptors were not included in the visitor questionnaires and their importance is not known.

Table 4.14 shows that 11 out of 18 projected image descriptors have cognitive attribute counterparts. These 11 descriptors and their corresponding cognitive attributes are listed in Table 4.15. As can be seen, the number of times that the projected image descriptors appeared in the promotional materials is presented in the left column. The other three columns included values regarding visitors' cognitive images, including (1) the mean values of these attributes, (2) the percentage of visitors who deemed these attributes important, and

(3) the value of the image index indicating the quality and relative importance of these cognitive attributes. The image index is a new item created by multiplying an attribute's mean value by the percentage of visitors who deemed this attribute important, and then dividing by 100. This new index represents the visitors' evaluation of both the quality and relative importance of the cognitive attributes in one figure. Spearman rank-order correlations were calculated to examine the relationship between projected image descriptors and the three groups of values regarding visitors' cognitive images. Spearman's rho correlation test was chosen because only eleven cases (attributes) were involved in the analysis as the dependent variable. With such a small number of cases, it is not possible to test whether or not this variable is normally distributed (Hill & Lewicki, 2007). Under this situation, a non-parametric rather than parametric test is more appropriate.

Table 4. 15 Projected Image Descriptors and Their Corresponding Cognitive Attributes in Visitors' Images

Projected image		Cognitive image			
Descriptors	# of times appeared/ Ranking	Attributes	Mean	% of visitors who deemed it important/ ranking	Image index/ Ranking
Natural scenery/mountain /forest/flora	93/1	Scenery	4.41	30.8/6	1.36/5
Special events/holding sailing events	55/2	Special events	4.29	38.6/3	1.66/3
European style architecture	38/3	Architecture	4.24	10.4/9	.44/9
European feature attractions	23/4	Ethnic attractions	4.27	31/5	1.32/6
Squares	21/5	Squares	4.25	8.1/10	.34/10
Beaches	20/6	Beaches	4.37	57.4/1	2.51/1
Seafood	16/7	Seafood	4.45	40/2	1.78/2
Golf	14/8	Golf	4.07	5.5/11	.22/11
Historical and cultural attractions	14/9	Cultural attractions	4.09	29.1/7	1.19/7
Shopping	13/10	Shopping	3.90	14.7/8	.57/8
Weather/pleasant weather	11/11	Weather	4.25	34.8/4	1.48/4

The results of Spearman's Rank Correlation tests are presented in Table 4.16. No significant correlations were found between the projected image descriptors and the three

groups of values with regard to visitors' cognitive images. The results indicate that the emphasis of the projected images of Qingdao does not relate closely to what visitors consider to be of quality or importance, or both. In other words, the image projected by marketers may not have been transmitted to or accepted by visitors successfully to construct their images of Qingdao. However, a more qualitative evaluation suggests considerable congruence between the projected and perceived images.

Table 4. 16 Relationship between Image Projected by Qingdao and Perceived by Visitors

	Cognitive attributes (mean scores)	Cognitive image (% of visitors who deemed it important)	Image index
Projected image descriptors	.534	.091	.118
(No. of times appeared)	(.090)	(.790)	(.729)

Note: Correlations reported above with probability below in parentheses.

Table 4.17 shows that 13 attributes that were used to evaluate visitors' cognitive images were not incorporated into the projected images. Of all 13 attributes, 5 (i.e., accommodation,

Table 4. 17 Cognitive Attributes (Visitors) Not Incorporated Into the Projected Image

	Mean	Percentage of visitors who deemed them important
Cognitive image		
Local people	4.30	10.7
Green space	4.29	9.2
Relaxing atmosphere	4.17	13.3
Resorts	4.15	5.7
Hygiene and cleanliness	4.10	21.8
Accommodation	3.97	7.8
Public transport	3.97	15.4
Fashion shows	3.88	1.0
Value for money	3.79	9.7
Transportation cost	3.76	21.6
Night life	3.72	9.5
Football games	3.69	1.9
Traffic congestion	3.35	13.5

fashion shows, value for money, night life, and football games) were perceived as important

by less than 10 percent of visitors. These 5 attributes were the overlapping parts of images projected by Qingdao and those perceived by visitors since they were not emphasized by both images. These attributes were also the weaknesses of Qingdao based on the views of visitors. As such, the results may not require strong action on the part of marketers unless they wish to address niche markets related to these items.

4.5 Relationships between Images Projected by Qingdao and Images Perceived by Residents

The results from the content analysis of brochures and the descriptive statistics from the survey data are presented in Table 4.18. The projected images were represented by 18 image descriptors that appeared at least 10 times in the promotional materials. The perceived images of residents were represented by the cognitive attributes (ranking concerning percentage of residents who deemed the cognitive attributes important) and overall image descriptors (percentage of residents who mentioned the attributes) that were counterparts of the 18 projected image descriptors. Inferences were made to determine the relationships between the images projected by Qingdao and images perceived by residents, as discussed below.

Natural scenery/mountain/forest/flora was the projected image descriptor that appeared most frequently (93 times) and, thus, was the descriptor most emphasized by marketers. This descriptor was deemed the 4th most important attribute by residents of Qingdao. Additionally, it was mentioned by 30.9 percent of residents when describing the images or characteristics of Qingdao. The results indicate that scenery was emphasized greatly in both the images projected by Qingdao and those perceived by residents. However, the rankings assigned by the different groups suggest that this attribute was given different weight by marketers and residents.

Table 4. 18 Images Projected by Qingdao and Images Perceived by Residents

Projected image		Perceived image			
		Cognitive image		Overall image	
Descriptors	# of times appeared/ ranking	Attributes	% of residents who deemed it important /ranking	Descriptors	% of residents who mentioned it
Natural scenery/mountain /forest/flora	93/1	Scenery	38.6/4	Scenery/beautiful	30.9
Special events/holding sailing events	55/2	Special events	28.8/6		
City landscape/skyscrapers/modern buildings	41/3			Modern	21.6
European style architecture	38/4	Architecture	25.8/7	Architecture/European style/charming/unique	13.2
Facilities	31/5				
European feature attractions	23/6	Ethnic attractions	31.5/5	Unique ethnic attractions	18.4
Squares	21/7	Squares	17.8/9		
Beaches	20/8	Beaches	49/1	Beaches/charming/beautiful	18.4
Place for vacations and holidays	20/8			Good tourism destination	18.4
				Good summer resort	15.1
Transportation system/air routes to more than 20 countries/highway and railway networks	19/10				
Seafood	16/11	Seafood	45.1/2	Seafood/variety of seafood/good seafood	24.3
Place for sightseeing	14/12				
Golf	14/12	Golf course	11.0/11		
Historical and cultural attractions	14/12	Cultural attractions	25.2/8	Cultural attractions	13.2
Shopping	13/15	Shopping	16.6/10		
Place for water sports	12/16				
Weather/pleasant weather	11/17	Weather	39.5/3	Pleasant weather	17.8
High technology	11/17				

Special events/holding sailing events was the second most emphasized theme (55 times) by marketers. This theme was found in the cognitive images as special events and was deemed the 6th most important attribute by residents. The results suggest that the projected and perceived images were consistent concerning the importance of special events/holding sailing events. However, it is not known whether the special events perceived by residents included sailing events because Qingdao holds a variety of special events annually.

City landscape/skyscrapers/modern buildings appeared in the promotional materials 41 times. This descriptor did not have a counterpart in cognitive attributes. However, one overall image descriptor, modern, to some extent relates to this theme. Modern was mentioned by 21.6 percent of residents in their overall images of Qingdao. In this regard, it is possible that some aspects of the city landscape/skyscrapers/modern theme were caught by residents.

European-style architecture was the fourth most emphasized projected image descriptor (38 times). This descriptor was deemed the 7th most important attribute by residents. Additionally, architecture/European style/charming/unique, was mentioned by 13.2 percent of residents when describing the images or characteristics of Qingdao. These results indicate that the projected and perceived images of Qingdao were to some extent consistent regarding the importance of the city's European-style architecture.

European feature attractions appeared in the promotional materials 23 times (the 6th most emphasized). This theme was found in the perceived images as ethnic attractions and was deemed the 5th most important attribute by residents. This theme was mentioned by 18.4 percent of residents when describing the images or characteristics of Qingdao. The results

suggest that the projected and perceived images were consistent concerning the importance of European feature attractions.

Beaches as an image attribute were shown in projected images 20 times (the 8th most emphasized). It was deemed the most important attribute by residents and mentioned by 18.4 percent of residents in their overall images. The results indicate that this theme was both a focus in the images projected by Qingdao and those perceived by residents. However, the extent to which the two groups (marketers and residents) emphasized this attribute was quite different.

Place for vacations and holidays appeared in the promotional materials 20 times. This theme was not directly caught in the perceived images of residents. However, it was reflected to some degree in two overall image descriptors, good tourism destination (18.4%) and good summer resort (15.1%). Thus, many residents endorse the official publicity that presents Qingdao as a good place to spend a vacation.

Seafood appeared in the promotional materials 16 times (the 11th most emphasized). This theme was deemed the second most important attribute by residents and mentioned by 24.3 percent of residents in their overall images. This suggests that the projected and perceived images agreed to a considerable extent in terms of their emphasis on seafood. However, marketers and residents emphasized this particular attribute to starkly differing degrees.

Historical and cultural attractions as an image theme appeared 14 times in the promotional materials (the 12th most emphasized). This theme was deemed the 8th most important attribute by residents and was mentioned by 13.2 percent of residents in their

overall images. The results indicate that both the projected and perceived images of Qingdao centered to some extent on historical and cultural attractions.

Golf, shopping and weather/pleasant weather were emphasized in both the projected and perceived images of Qingdao. These three themes appeared in the promotional materials 14, 13 and 11 times (the 12th, 15th, and 17th most emphasized), and residents considered these themes the 11th, 10th, and 3rd most important image attributes. Additionally, pleasant weather was also mentioned by 17.8 percent of residents in their overall images of Qingdao. Therefore, the projected and perceived images of Qingdao were consistent concerning their focus on golf, shopping and weather, although with different levels of emphasis.

Other image descriptors emphasized by the promotional materials did not have direct counterparts in the images perceived by residents. These descriptors include facilities, transportation system/air routes to more than 20 countries/highway and railway networks, place for sightseeing, place for water sports, and high technology. These descriptors were not included in resident questionnaires and their importance is not known.

Table 4.18 shows that 11 out of 18 projected image descriptors have cognitive attribute counterparts. These 11 descriptors and their corresponding cognitive attributes are listed in Table 4.19. The number of times that the projected image descriptors appeared in the promotional materials is presented in the left column. The other three columns include: values regarding residents' cognitive images, including (1) the mean values of the attributes, (2) the percentage of residents who deemed these attributes important, and (3) the image index indicating both the quality and relative importance of these attributes. Spearman's rho correlations were conducted to examine the relationship between the projected image

descriptors and the three groups of values regarding residents' perceived images. Spearman's rho correlation test was chosen due to the small number of cases used in the analysis. Since only eleven cases (attributes) were used as the dependent variable, it is not possible to test whether this variable is normally distributed (Hill & Lewicki, 2007). Under this situation, a non-parametric rather than parametric test is more appropriate. The results are presented in Table 4.20.

Table 4. 19 Projected Image Descriptors and Their Corresponding Cognitive Attributes in Residents' Images

Projected image	# of times appeared /ranking	Cognitive image			
		Attributes	Mean	% of residents who deemed it important/ Ranking	Image index/ ranking
Natural scenery/mountain /forest/flora	93/1	Scenery	4.52	38.6/4	1.74/3
Special events/holding sailing events	55/2	Special events	4.30	28.8/6	1.24/6
European style architecture	38/3	Architecture	4.31	25.8/7	1.11/7
European feature attractions	23/4	Ethnic attractions	4.25	31.5/5	1.34/5
Squares	21/5	Squares	4.30	17.8/9	0.77/9
Beaches	20/6	Beaches	4.46	49/1	2.19/1
Seafood	16/7	Seafood	4.62	45.1/2	2.09/2
Golf	14/8	Golf	4.02	11/11	0.44/11
Historical and cultural attractions	14/9	Cultural attractions	3.75	25.2/8	0.95/8
Shopping	13/10	Shopping	3.82	16.6/10	0.63/10
Weather/pleasant weather	11/11	Weather	4.37	39.5/3	1.73/4

Table 4. 20 Relationship between Images Projected by Qingdao and Images Perceived by Residents

	Cognitive attributes (mean scores)	Cognitive image (% of visitors who deemed it important)	Image index
Projected image descriptors	.342	.187	.278
(No. of times appeared)	(.303)	(.582)	(.408)

Note: Correlations reported above with probability below in parentheses.

No statistically significant correlations were found between the projected image

descriptors and the three groups of values regarding visitors' cognitive images. The results indicate that the emphasis of the projected images of Qingdao does not relate statistically to what residents consider to be of quality or importance, or both. In this regard, the image projected by marketers may not have been transmitted to or accepted by residents extensively to construct their images of Qingdao. However, a more qualitative evaluation suggests considerable congruence between the projected and perceived images.

Table 4.21 shows that 13 attributes that were used to evaluate residents' cognitive images were not incorporated into the projected images. Of all 13 attributes, 7 attributes were rated moderately high and 1 attribute was rated low by visitors. Among these 8 attributes, 3

Table 4. 21 Cognitive Attributes (Residents) Not Incorporated Into the Projected Image

	Mean	Percentage of residents who deemed them important
Cognitive image		
Local people	4.38	36.2
Green space	4.37	33.8
Relaxing atmosphere	4.07	33.8
Resorts	4.19	11.6
Hygiene and cleanliness	4.34	38.3
Accommodation	3.95	13.9
Public transport	3.98	19.0
Fashion shows	3.80	6.2
Value for money	3.79	9.7
Transportation cost	3.76	21.6
Night life	3.72	9.5
Football games	3.76	12.2
Traffic congestion	2.89	17.5

(i.e., fashion shows, value for money, and night life) were perceived as important by less than 10% of residents. These 3 attributes were the overlapping parts of images projected by Qingdao and those perceived by residents since they were not emphasized by both images. They were also weaknesses of Qingdao according to residents. As such, the results may not

require strong action on the part of marketers unless they wish to address niche markets related to these items.

4.6 Chapter Summary

This chapter presented the results of the analysis of the brochures, key informant interviews, and the surveys of visitors and residents. These results are used to answer central research question one: *What are the relationships among the three images: the images projected by the Qingdao government agencies responsible for tourism marketing between 2006 and 2009, and those perceived by current visitors and by residents regarding Qingdao?*

Although there was considerable congruence between the evaluations, the results showed that visitors and residents differed significantly in their images of 10 cognitive attributes. For all 10 attributes, visitors had more positive images than residents regarding two attributes (i.e., cultural attractions and traffic congestion) while they had more negative images than residents regarding 8 attributes (i.e., seafood, highway system, airline schedules, local people, beaches, weather, scenery, and hygiene and cleanliness). No significant differences were found in participants' images of the other 16 cognitive attributes, including accommodation, shopping, transportation cost, public transport, night life, relaxing atmosphere, football games, green space, squares, resorts, ethnic attractions, golf course, special events, fashion shows, architecture, and value for money.

Visitors' images were also significantly different from those of the residents regarding two affective attributes: arousing-sleepy and exciting-gloomy. Residents were more likely to feel aroused and excited about Qingdao than visitors. No significant differences were found in participants' ratings of the other two affective attributes: pleasant-unpleasant and

relaxing-distressing.

With regard to the overall images, visitors differed significantly from residents in 5 out of 22 identified descriptors, including scenery/beautiful, beer/good beer, relaxing/relaxed, peaceful/tranquil, and hospitable/welcoming. Visitors had much higher scores for scenery, beer/good beer, and relaxing/relaxed than did residents, but residents had much higher scores for peaceful/tranquil and hospitable/welcoming.

Concerning the relationship between the images projected by Qingdao and those perceived by visitors, 12 out of 18 identified projected image descriptors had their cognitive and/or overall image counterparts. These 13 image descriptors and their counterparts were then compared using rankings based on the frequency of projected image descriptors appearing in the promotional materials and the ranking concerning percentage of visitors who deemed these attributes important as well as the percentage of visitors who mentioned these descriptors in their overall images. It was found that the images projected by Qingdao and those perceived by visitors were consistent concerning the emphasis of these 12 image attributes; however, the degree of importance ascribed to these attributes by marketers and visitors differed.

Spearman's correlation tests were used to determine the relationship between the 11 projected image descriptors and their direct cognitive image counterparts. The results showed that projected images did not significantly relate to the cognitive images in terms of the attributes' values of quality, of importance, and both.

Similar results were found in the relationship between the images projected by Qingdao and those perceived by residents. Among the 18 identified image descriptors, 13 had their

cognitive image and/or overall image counterparts and 11 had direct cognitive attribute counterparts. A comparison of these 13 image descriptors and their counterparts showed that the images projected by Qingdao and those perceived by residents were consistent concerning the emphasis of certain attributes. However, the degree of importance ascribed to these attributes by marketers and residents differed.

Spearman's correlation tests were calculated to determine the relationship between the 11 projected image descriptors and their counterparts. The results showed that projected images did not significantly relate to the cognitive images in terms of the attributes' values of quality, importance, and both. In the next chapter, factors that may affect the image construction of visitors, particularly socio-demographic factors, are explored.

Chapter 5 Factors Influencing Visitors' Image Formation

This chapter reports the results of analyses to determine whether or not certain factors influence the cognitive and affective images of visitors to Qingdao. The factors examined include socio-demographic characteristics such as sex, education, age, occupation, place of residence, previous travel experience, motivations, information sources, place attachment, and the importance of German heritage, the 2008 Olympic Games, and the Qingdao International Beer Festival. Mann-Whitney *U*, Kruskal-Wallis, and Spearman's Rank Correlation tests were used to investigate the statistical significance of the influence of these factors. Significance levels of .05 and .01 were used to interpret the results of all statistical tests. The chapter concludes with a summary of the research findings.

5.1 Influence of Socio-demographic Characteristics on Visitor Images

5.1.1 Influence of Sex on Visitor Images

Mann-Whitney *U* tests were conducted to determine whether visitors' cognitive images of Qingdao differed significantly on the basis of sex. Table 5.1 provides a summary of the mean values for each of the dependent variables (cognitive image attributes). To determine whether there is a significant difference between males and females in their cognitive images, Mann-Whitney *U* tests were run for each of the 26 attributes independently. The results were interpreted based on the mean ranks obtained from these tests. The procedure is as follows: the scores on each of the dependent variables (the 26 cognitive attributes) for each individual for both samples (male and female) are combined into one group and ranked from lowest to

highest. The two samples are then separated out, and the assigned ranks for each group are summed up. If the sum of the ranks for one group is sufficiently larger than that of another group, it can be concluded that the two groups are not from the same population.

Table 5. 1 Influence of Sex on Cognitive Images of Visitors

	Male		Female		Z	p
	n	Mean	n	Mean		
Cognitive image ^a						
Seafood	289	4.38	279	4.52	-1.95	.051
Accommodation	291	3.95	286	3.99	-.56	.577
Shopping	284	3.87	280	3.92	-.59	.555
Cultural attractions	287	4.00	286	4.17	-2.21	.027*
Highway system	286	3.95	279	4.00	-1.04	.298
Traffic congestion	283	3.39	278	3.31	-.98	.327
Airline schedules	268	3.67	258	3.69	-.37	.711
Transportation cost	280	3.75	271	3.77	-.31	.755
Public transport	274	3.91	254	4.04	-1.68	.093
Night life	272	3.69	268	3.75	-.55	.581
Relaxing atmosphere	288	4.17	283	4.17	-.23	.816
Local people	286	4.31	280	4.29	-.17	.863
Football games	211	3.75	200	3.64	-1.11	.266
Beaches	285	4.37	282	4.36	-.13	.897
Weather	290	4.29	285	4.22	-.83	.404
Green space	290	4.23	286	4.36	-1.60	.111
Squares	288	4.24	281	4.27	-.11	.910
Resorts	269	4.10	272	4.19	-1.15	.459
Scenery	288	4.42	281	4.41	-.32	.752
Ethnic attractions	271	4.27	272	4.26	-.07	.943
Golf course	198	4.03	191	4.12	-1.34	.180
Special events	268	4.26	262	4.33	-1.36	.173
Fashion shows	196	3.93	173	3.81	-1.57	.116
Architecture	287	4.20	280	4.28	-.96	.336
Value for money	283	3.74	282	3.84	-1.48	.140
Hygiene and cleanliness	287	4.09	284	4.11	-.02	.982

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$

No statistically significant differences were found between male and female visitors in their images of 25 out of 26 cognitive attributes at the significance level of .05. Only one attribute, cultural attractions, was shown to be significantly different for male and female

visitors; female visitors had a more positive image of Qingdao’s cultural attractions than did males. The results indicate that male and female visitors had similar images in relation to almost all attributes tested. In other words, sex, had little influence on visitors’ cognitive images.

Table 5.2 shows the results of the Mann-Whitney *U* tests for effects of sex on visitors’ affective images of Qingdao. No statistically significant differences were found between the affective images of male and female visitors for all four attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing. This suggests that male and female visitors had similar affective images of Qingdao in relation to these four attributes. This means that sex did not influence visitors’ affective images.

Table 5. 2 Influence of Sex on Affective Images of Visitors

	Male		Female		<i>Z</i>	<i>p</i>
	<i>n</i>	Mean	<i>n</i>	Mean		
Affective image ^a						
Arousing-sleepy	292	4.35	286	4.33	-.18	.858
Exciting-gloomy	292	4.29	286	4.20	-1.10	.279
Pleasant-unpleasant	292	4.32	286	4.33	-.16	.871
Relaxing-distressing	292	4.32	286	4.38	-.57	.570

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

5.1.2 Influence of Education on Visitor Images

Table 5.3 presents the results of the Mann-Whitney *U* tests for comparisons of cognitive images between visitors at two educational levels (i.e., high school or lower, college or higher). No statistically significant differences were found between these two groups of visitors for all 26 cognitive attributes, with *p*-values ranging from .085 to .969. This suggests that the two groups were consistent in their images of the 26 cognitive attributes of Qingdao. In other words, education did not influence visitors’ cognitive images.

The comparison of affective images between visitors at two educational levels (i.e., high school or lower, college or higher) is reported in Table 5.4. The results of Mann-Whitney *U* tests revealed no statistically significant differences between the two educational groups for three affective attributes: arousing-sleepy, exciting-gloomy, and pleasant-unpleasant. However, a significant difference was found between the two groups in the attribute of relaxing-distressing. Visitors with college or higher level of education felt more relaxed than those with high school or lower level of education. The results indicate that education had a small influence on visitors' affective images.

Table 5. 3 Influence of Education on Cognitive Images of Visitors

	<u>High school or lower</u>		<u>College or higher</u>		<i>Z</i>	<i>p</i>
	<i>n</i>	Mean	<i>n</i>	Mean		
Cognitive image ^a						
Seafood	114	4.47	454	4.44	-.19	.852
Accommodation	115	3.96	462	3.97	-.31	.759
Shopping	114	3.93	450	3.89	-.77	.444
Cultural attractions	115	4.15	458	4.07	-.75	.456
Highway system	113	3.94	452	3.99	-.26	.799
Traffic congestion	112	3.36	449	3.35	-.04	.969
Airline schedules	102	3.70	424	3.67	-.52	.605
Transportation cost	109	3.72	442	3.77	-.24	.808
Public transport	103	3.90	425	3.98	-.88	.377
Night life	111	3.73	429	3.72	-.18	.856
Relaxing atmosphere	114	4.10	457	4.19	-1.2	.217
Local people	109	4.30	457	4.30	-.12	.908
Football games	82	3.70	329	3.69	-.36	.721
Beaches	113	4.44	454	4.35	-1.2	.243
Weather	115	4.24	460	4.26	-.47	.640
Green space	115	4.27	461	4.30	-.41	.683
Squares	114	4.21	455	4.27	-1.0	.310
Resorts	105	4.16	436	4.15	-.07	.943
Scenery	110	4.30	459	4.44	-1.1	.275
Ethnic attractions	107	4.32	436	4.25	-.59	.553
Golf course	78	4.09	311	4.07	-.25	.803
Special events	102	4.30	428	4.29	-.43	.669
Fashion shows	71	3.86	298	3.88	-.34	.736
Architecture	115	4.30	452	4.23	-1.3	.203
Value for money	115	3.64	450	3.89	-1.7	.085
Hygiene and cleanliness	115	4.15	456	4.09	-.78	.437

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

Table 5. 4 Influence of Education on Affective Images of Visitors

	<u>High school or lower</u>		<u>College or higher</u>		<i>Z</i>	<i>p</i>
	<i>n</i>	Mean	<i>n</i>	Mean		
Affective image ^a						
Arousing-sleepy	115	4.23	463	4.37	-1.50	.125
Exciting-gloomy	115	4.21	463	4.25	-.42	.676
Pleasant-unpleasant	115	4.23	463	4.35	-2.00	.051
Relaxing-distressing	115	4.21	463	4.38	-2.70	.008*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**p*<.05

5.1.3 Influence of Age on Visitor Images

Kruskal-Wallis tests were performed to determine whether there were statistically significant differences among visitors' cognitive images of Qingdao by age. As shown in Table 5.5, no significant differences were found among three age groups (i.e., 18-24, 25-44, and 45-and-over) for 21 out of 26 cognitive attributes, with *p*-values ranging from .054 to .994. However, five

Table 5. 5 Influence of Age on Cognitive Images of Visitors

	18-24		25-44		45-and-over		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Cognitive image ^a								
Seafood	148	4.43	295	4.45	125	4.46	.012	.994
Accommodation	149	3.90	303	3.95	125	4.09	4.680	.096
Shopping	140	3.97	299	3.84	125	3.96	2.658	.265
Cultural attractions	147	4.03	300	4.15	126	4.02	2.919	.232
Highway system	141	3.99	300	3.95	124	4.04	.804	.669
Traffic congestion	142	3.39	298	3.36	121	3.31	.730	.694
Airline schedules	134	3.72	276	3.69	116	3.60	1.563	.458
Transportation cost	138	3.84	291	3.72	122	3.76	1.074	.584
Public transport	132	3.89	282	3.99	114	4.01	2.037	.361
Night life	135	3.80	289	3.71	116	3.67	1.174	.556
Relaxing atmosphere	146	4.14	301	4.16	124	4.25	1.613	.446
Local people	143	4.40	299	4.23	124	4.35	4.361	.113
Football games	97	3.66	233	3.63	81	3.93	7.361	.025*
Beaches	141	4.48	302	4.32	124	4.33	4.210	.122
Weather	147	4.31	303	4.25	125	4.20	2.150	.341
Green space	148	4.34	303	4.30	125	4.22	.869	.648
Squares	146	4.40	299	4.22	124	4.18	8.693	.013*
Resorts	131	4.20	295	4.15	115	4.10	1.075	.584
Scenery	145	4.44	300	4.39	124	4.45	.632	.729
Ethnic attractions	139	4.37	290	4.27	114	4.13	7.649	.022*
Golf course	92	4.13	219	4.05	78	4.05	.920	.631
Special events	136	4.43	286	4.26	108	4.22	7.340	.025*
Fashion shows	89	4.09	213	3.80	67	3.82	8.043	.018*
Architecture	145	4.25	299	4.26	123	4.19	1.062	.588
Value for money	146	3.81	298	3.85	121	3.64	3.744	.154
Hygiene and cleanliness	147	4.15	301	4.02	123	4.23	5.833	.054

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

**p*<.05, df=2

attributes, football games, squares, ethnic attractions, special events, and fashion shows, were found to be significantly different across the three age groups.

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of age groups was significantly different based on mean rank. In these paired comparisons, a Bonferroni adjustment was made to control for Type I error. This involved obtaining a new significance level by dividing the *p*-value to be achieved for significance (.05 in this research) by the number of paired comparisons. The number of pairs to be compared was obtained through the formula $k(k-1)/2$, where *k* represents the number of groups of independent variables. As three age groups were involved, three groups of comparisons were needed, and a significance level of .017 was used. Table 5.6 shows the results of Mann-Whitney *U* tests for each statistically different pair for the five attributes identified in the Kruskal-Wallis tests.

In comparisons between the 18-24 and 25-44 age groups, the results showed statistically significant differences in the attributes of squares and fashion shows (Table 5.6). Visitors in the age group 18-24 (mean rank = 243.34, 171.78, respectively) had a better image of squares and fashion shows than did those in the 25-44 age group (mean rank = 213.07, 143.03, respectively).

Table 5. 6 Influence of Age on Cognitive Images of Visitors: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	<i>p</i>
1 vs. 2	18-24 vs. 25-44	Squares	-2.544	.011
		Fashion shows	-2.773	.006
1 vs. 3	18-24 vs. 45-and-over	Squares	-2.670	.008
		Ethnic attractions	-2.729	.006
		Special events	-2.407	.016
2 vs. 3	25-44 vs. 45-and-over	Football games	-2.610	.009

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

**p*<.017

In comparisons between the 18-24 and 45-and-over groups, the results showed statistically significant differences in the attributes of squares, ethnic attractions, and special events. Visitors in the age group 18-24 (mean rank = 146.17, 137.42, 131.34, respectively) had a better image of these three attributes than did those in the 45-and-over age group (mean rank = 122.94, 114.29, 111.37, respectively).

In comparison between the 25-44 and 45-and-over groups, the results showed a statistically significant difference in the attribute of football games. Visitors in the age group 45-and-over (mean rank = 178.99) had a better image of football games than did those in the 25-44 age group (mean rank = 150.03).

Kruskal-Wallis tests were conducted to determine whether there were statistically significant differences among visitors' affective images of Qingdao by age. As shown in Table 5.7, no significant differences were found among three age groups (i.e., 18-24, 25-44, 45-and-over) for all four affective attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing. This suggests that the three groups of visitors had similar affective images of Qingdao in relation to these four attributes.

Table 5. 7 Influence of Age on Affective Images of Visitors

	18-24		25-44		45-and-over		Chi-Square	p
	n	Mean	n	Mean	n	Mean		
Affective image ^a								
Arousing-sleepy	149	4.36	303	4.33	126	4.35	.265	.876
Exciting-gloomy	149	4.21	303	4.22	126	4.35	4.201	.122
Pleasant-unpleasant	149	4.28	303	4.32	126	4.38	.659	.719
Relaxing-distressing	149	4.24	303	4.36	126	4.44	4.073	.130

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

df=2

The influence of age on visitors' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the three age groups varied in their images in only 5 out of 26

cognitive image attributes. This indicates that age, to some extent, influenced visitors' cognitive images. The post-hoc Mann-Whitney tests revealed that more image differences existed between the 18-24 and 45-and-over groups than between the 18-24 and 25-44 age groups and between the 25-44 and 45-and-over groups. One possible reason for these differences is that people's interests differ due to their ages. For example, young people may be more interested in amusement and festive activities such as special events and fashion shows than those who are middle-aged and older. The Kruskal-Wallis tests also showed that visitors' affective images did not differ based on age.

5.1.4 Influence of Occupation on Visitor Images

Kruskal-Wallis tests were used to determine whether there were statistically significant differences among visitors' cognitive images of Qingdao by occupation. As shown in Table 5.8, no significant differences were found among six occupational groups (i.e., professionals, skilled workers, service and clerical workers, self-employed, students, and retired) for 21 out of 26 cognitive attributes, with p -values ranging from .088 to .922. However, five attributes, accommodation, public transport, night life, squares, and value for money were found to be significantly different across the six occupational groups. The results indicate that occupation, to some extent, influenced visitors' cognitive images.

Mann-Whitney U tests were conducted as post-hoc tests to determine which of the pairs of occupational groups was significantly different based on mean rank (Table 5.9). In these paired comparisons, a Bonferroni adjustment was made to control for Type I error. As six occupational groups were involved, 15 groups of comparisons were needed, and a significance

level of .0033 was used.

Table 5. 8 Influence of Occupation on Cognitive Images of Visitors

	<u>Professionals</u>		<u>Skilled workers</u>		<u>Service & clerical workers</u>		<u>Self-employed</u>		<u>Students</u>		<u>Retired</u>		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Cognitive image ^a														
Seafood	106	4.53	93	4.30	79	4.46	29	4.48	91	4.38	86	4.53	4.999	.416
Accommodation	108	4.04	95	3.72	80	4.00	29	4.00	92	4.08	87	4.01	14.178	.015*
Shopping	104	3.89	96	3.81	78	4.03	29	3.72	84	3.82	87	3.90	3.860	.570
Cultural attractions	108	4.06	96	3.98	79	4.09	29	4.38	90	4.13	87	4.09	6.773	.238
Highway system	108	4.12	95	3.98	78	3.99	28	3.57	84	4.12	87	3.82	8.398	.136
Traffic congestion	105	3.33	94	3.20	78	3.51	29	3.34	86	3.51	85	3.38	5.955	.311
Airline schedules	100	3.69	84	3.58	73	3.68	23	3.61	85	3.89	81	3.63	5.318	.378
Transportation cost	103	3.87	93	3.61	77	3.70	29	3.59	85	3.88	83	3.76	7.093	.214
Public transport	99	4.09	92	3.80	78	3.73	29	3.90	74	4.23	81	3.93	20.243	.001*
Night life	100	3.70	89	3.75	77	3.70	28	3.39	83	3.98	81	3.59	13.403	.020*
Relaxing atmosphere	108	4.22	94	4.22	79	4.18	28	4.36	92	4.16	86	4.09	3.587	.610
Local people	108	4.29	96	4.18	77	4.26	25	4.44	89	4.35	86	4.41	3.747	.586
Football games	76	3.78	74	3.57	61	3.69	20	3.90	49	3.63	71	.77	5.497	.358
Beaches	108	4.35	96	4.25	79	4.37	29	4.59	85	4.42	84	4.39	4.001	.549
Weather	108	4.33	96	4.25	80	4.23	29	4.28	91	4.13	85	4.35	4.469	.484
Green space	108	4.43	95	4.40	80	4.26	29	4.24	92	4.29	86	3.75	8.183	.146
Squares	108	4.22	93	4.18	79	4.35	29	3.90	90	4.31	85	4.31	11.285	.046*
Resorts	101	4.17	95	4.05	78	4.15	27	4.22	80	4.05	80	4.28	4.126	.531
Scenery	107	4.35	95	4.35	79	4.51	28	4.14	91	4.49	86	4.51	5.633	.344
Ethnic attractions	101	4.35	91	4.21	76	4.21	27	4.19	87	4.28	82	4.30	2.015	.847
Golf course	71	3.97	69	4.04	59	4.07	16	4.44	53	3.94	62	4.19	9.572	.088
Special events	99	4.19	90	4.21	75	4.28	27	4.33	80	4.30	83	4.30	2.334	.801
Fashion shows	72	3.81	70	3.83	55	3.94	13	4.08	47	3.81	55	4.00	3.607	.607
Architecture	106	4.26	94	4.21	80	4.31	27	4.22	90	4.19	84	4.20	1.417	.922
Value for money	103	3.97	94	3.63	80	3.81	29	3.17	90	3.67	83	3.98	20.252	.001*
Hygiene and cleanliness	107	4.13	95	4.07	80	4.11	29	4.17	90	4.02	84	4.13	1.601	.901

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

**p*<.05, *df*=5

A comparison between professionals and self-employed produced a statistically significant difference in the attribute of value for money. Professionals (mean rank = 71.75) had a better image of value for money than did those who were self-employed (mean rank = 47.86).

A comparison between skilled workers and students showed a statistically significant difference in the attribute of accommodation. Students (mean rank = 106.25) had a better image of accommodation than did skilled workers (mean rank = 82.14).

Comparing the student to the service and clerical worker group showed a statistically significant difference in the attribute of public transport. Students (mean rank = 89.37) had a better image of public transport than did service and clerical workers (mean rank = 64.29).

A comparison between the self-employed and students produced a statistically significant difference in the attribute of night life. Students (mean rank = 61.08) had a better image of night life than did the self-employed (mean rank = 40.93).

A comparison between the self-employed and retired visitors showed a statistically significant difference in the attribute of value for money. Retired visitors (mean rank = 61.84) had a better image of value for money than did the self-employed (mean rank = 41.21).

Table 5.9 Influence of Occupation on Cognitive Images of Visitors: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	P
1 vs. 4	Professionals vs. self-employed	Value for money	-3.117	.002
2 vs. 5	Skilled workers vs. students	Accommodation	-3.320	<.001
3 vs. 5	Service and clerical workers vs. students	Public transport	-3.739	<.001
4 vs. 5	Self-employed vs. students	Night life	-3.023	.003

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .0033$

Kruskal-Wallis tests were performed to determine whether there were statistically significant differences among visitors' affective images of Qingdao by occupation. As shown in Table 5.10, no significant differences were found among six occupational groups for 3 out of 4 affective attributes: exciting-gloomy, pleasant-unpleasant, and relaxing-distressing. However, one attribute, arousing-sleepy, was found to be significantly different across the six occupational groups.

Table 5. 10 Influence of Occupation on Affective Images of Visitors

	<u>Service &</u>												Chi-Square	<i>p</i>
	<u>Professionals</u>		<u>Skilled workers</u>		<u>clerical workers</u>		<u>Self-employed</u>		<u>Students</u>		<u>Retired</u>			
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a														
Arousing-sleepy	108	4.19	96	4.20	80	4.36	29	4.41	92	4.41	87	4.45	11.146	.049*
Exciting-gloomy	108	4.20	96	4.25	80	4.20	29	4.52	92	4.18	87	4.32	6.615	.251
Pleasant-unpleasant	108	4.31	96	4.31	80	4.39	29	4.17	92	4.33	87	4.43	4.342	.501
Relaxing-distressing	108	4.40	96	4.35	80	4.39	29	4.41	92	4.20	87	4.43	4.724	.451

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**p*<.05, *df*=5

Mann-Whitney *U* tests were used as post-hoc tests to determine which of the pairs of occupational groups was significantly different based on mean rank. With the Bonferroni adjustment, a significance level of .0033 was used in the paired comparisons. No statistically significant differences were detected in the paired comparisons for the attribute of arousing-sleepy.

The influence of occupation on visitors' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the six occupational groups varied in their images of 5 out of 26 cognitive image attributes. This indicates that occupation, to some extent, influenced visitors' cognitive images. The post-hoc Mann-Whitney tests identified differences in the paired comparisons for four attributes: value for money, accommodation, public transport and night life. Among the differences identified, students were found to have more positive images with respect to the attributes of accommodation, public transport and night life than skilled workers, service and clerical workers, and the self-employed. The reason for this could be that students are generally not employed and are usually younger than the other three groups. Therefore, they may be more easily satisfied with facilities and services provided for the public and are more likely to accept the crowds when taking a bus than other groups.

No significant differences were found in the paired comparisons for the attribute of

squares. This result can be caused by the p -value of .046 obtained by the Kruskal-Wallis test. As the p -value of .046 is very close to the significance level of .05, it is very likely that the difference in the mean ranks of the scores for squares is caused by chance.

The Kruskal-Wallis tests also discovered that visitors differed in their affective images of arousing-sleepy with regard to occupation. However, the post-hoc Mann-Whitney tests found no difference in the paired comparisons for this attribute. This result can be caused by the p -value of .049 obtained by the Kruskal-Wallis test. As the p -value of .049 is very close to the significance level of .05, it is very likely that the difference in the mean ranks of the scores for arousing-sleepy is caused by chance.

5.1.5 Influence of Place of Residence on Visitor Images

Kruskal-Wallis tests were conducted to determine whether there were statistically significant differences among visitors' cognitive images of Qingdao by place of residence. As shown in Table 5.11, no significant differences were found among six visitor groups (i.e., Shandong province; Eastern China; Central China; Western China; Asia, Hong Kong and Macau; and other countries) based on place of residence for 25 out of 26 cognitive attributes, with p -values ranging from .060 to .954. However, one attribute, accommodation, was found to be significantly different across the six visitor groups.

Mann-Whitney U tests were used as post-hoc tests to determine which of the pairs of place of residence groups were significantly different based on mean rank. With the Bonferroni adjustment, a significance level of .0033 was used in the paired comparisons. A statistically significant difference was found between visitors from Shandong and from Asia countries,

Hong Kong and Macau. Visitors from Asian countries, Hong Kong and Macau (mean rank = 127.53) had a more positive image of accommodation than did those from Shandong province (mean rank = 98.78).

Table 5. 11 Influence of Place of Residence on Cognitive Images of Visitors

	Shandong		Eastern China		Central China		Western China		Asia countries, Hong Kong & Macau		Other countries		Chi-Square	p
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
	Cognitive image ^a													
Seafood	155	4.34	171	4.50	92	4.51	40	4.48	52	4.50	22	4.50	4.795	.441
Accommodation	158	3.83	174	4.04	93	4.02	40	4.10	53	4.23	22	3.82	15.609	.008*
Shopping	153	3.83	171	3.99	92	3.85	40	4.13	52	3.85	19	3.89	6.053	.301
Cultural attractions	158	4.11	173	4.01	92	4.11	39	4.13	52	4.15	22	4.23	2.411	.790
Highway system	153	3.97	171	3.95	91	3.96	40	3.63	52	4.17	21	4.14	5.432	.365
Traffic congestion	155	3.25	167	3.28	91	3.53	40	3.30	52	3.36	20	3.70	6.788	.237
Airline schedules	149	3.67	154	3.64	87	3.83	35	3.66	45	3.60	22	3.73	4.726	.450
Transportation cost	150	3.76	166	3.73	90	3.77	40	3.70	51	3.90	17	4.18	5.950	.311
Public transport	152	3.86	168	3.96	92	4.08	40	3.93	31	4.26	9	3.78	9.260	.099
Night life	145	3.65	159	3.76	92	3.70	39	3.59	49	4.10	22	3.64	10.611	.060
Relaxing atmosphere	157	4.13	172	4.19	92	4.17	39	4.33	53	4.08	22	4.09	3.946	.557
Local people	155	4.25	172	4.35	92	4.27	36	4.28	53	4.32	22	4.27	1.419	.922
Football games	113	3.64	130	3.65	75	3.73	33	3.91	21	3.76	13	3.46	4.196	.522
Beaches	155	4.28	171	4.41	92	4.39	40	4.60	52	4.29	21	4.33	7.519	.185
Weather	159	4.22	172	4.32	92	4.32	40	4.23	53	4.04	22	4.09	7.973	.158
Green space	158	4.26	173	4.30	93	4.39	40	4.25	53	4.23	22	4.09	4.871	.432
Squares	155	4.21	171	4.30	92	4.20	40	4.05	53	4.40	21	4.24	6.451	.265
Resorts	150	4.13	166	4.13	90	4.18	37	00	47	4.23	16	4.13	3.265	.659
Scenery	155	4.42	174	4.42	90	4.42	40	4.23	52	4.40	21	4.57	1.799	.876
Ethnic attractions	148	4.28	163	4.22	91	4.22	37	4.43	50	4.42	20	4.40	5.423	.366
Golf course	104	4.10	118	4.04	69	4.13	28	4.00	35	4.09	7	3.71	2.949	.708
Special events	147	4.35	156	4.28	89	4.30	34	4.24	48	4.25	21	4.29	1.396	.925
Fashion shows	101	3.87	111	3.85	71	3.86	24	3.92	25	3.72	9	4.11	2.051	.842
Architecture	156	4.20	171	4.18	93	4.31	37	4.43	51	4.23	22	4.32	4.785	.443
Value for money	157	3.76	170	3.80	89	3.79	38	3.58	53	3.90	22	4.13	4.498	.480
Hygiene and cleanliness	158	4.06	171	4.12	93	4.13	38	4.08	52	4.12	22	4.05	1.105	.954

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, $df=5$

Kruskal-Wallis tests were conducted to determine whether there were statistically

significant differences among visitors' affective images of Qingdao by place of residence. As shown in Table 5.12, no significant differences were found among the six visitor groups (i.e., Shandong province; Eastern China; Central China; Western China; Asia, Hong Kong, and Macau; and other countries) based on place of residence for 3 out of 4 affective attributes: arousing-sleepy, pleasant-unpleasant and relaxing-distressing. However, one attribute, exciting-gloomy, was found to be significantly different across the six visitor groups.

Table 5. 12 Influence of Place of Residence on Affective Images of Visitors

	<u>Shandong</u>		<u>Eastern China</u>		<u>Central China</u>		<u>Western China</u>		<u>Asia, Hong Kong, and Macau</u>		<u>Other countries</u>		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a														
Arousing-sleepy	159	4.27	174	4.39	93	4.25	40	4.43	53	4.47	22	4.27	5.121	.401
Exciting-gloomy	159	4.18	174	4.19	93	4.20	40	4.58	53	4.42	22	4.18	13.580	.019*
Pleasant-unpleasant	159	4.31	174	4.26	93	4.33	40	4.35	53	4.40	22	4.27	1.785	.878
Relaxing-distressing	159	4.43	174	4.26	93	4.35	40	4.50	53	4.36	22	3.95	10.208	.070

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**p*<.05, df=5

Mann-Whitney *U* tests were performed as post-hoc tests to determine which of the pairs of place of residence groups were significantly different based on mean rank. With the Bonferroni adjustment, a significance level of .0033 was used in the paired comparisons. Significant differences were found between the Shandong and Western China groups and between the Central and Western China groups in their images of exciting-gloomy. Visitors from Western China (mean rank = 122.58) felt more excited than did those from Shandong province (mean rank = 94.32). Visitors from Western China (mean rank = 132.30) also felt more excited than did those from Central China (mean rank = 101.80).

The influence of place of residence on visitors' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the six visitor groups varied in their

images of 1 out of 26 cognitive image attributes. This indicates that place of residence scarcely influenced visitors' cognitive images. The post-hoc Mann-Whitney tests revealed one significant difference between visitors from Shandong and from Asian countries, Hong Kong and Macau. The latter group had a better image than the former group with respect to accommodation. The reason for this could be that people from other countries, especially from developed countries and regions, do not know about the current situation of economic development in mainland China and do not expect high-level services and facilities when traveling in China. When the condition of the accommodation exceeds the expectations of these visitors, they are more easily satisfied with the accommodation and, thus, may rate this attribute high. Conversely, people who live in Shandong province, where the city of Qingdao is located, may have visited Qingdao and know more about its accommodation. Accordingly, they may have a smaller expectation-satisfaction gap than those from far away, e.g., Asian countries, Hong Kong and Macau; therefore they may not rate this attribute as highly as people who are from Asian countries, Hong Kong and Macau.

The Kruskal-Wallis tests also revealed that the six visitor groups differed significantly in their affective images of exciting-gloomy. This indicates that place of residence, to some extent, influenced visitors' affective images. The post-hoc Mann-Whitney tests discovered two significant differences in the paired comparisons with respect to this attribute. The results showed that visitors from Western China were more excited than those from Shandong and from Central China, respectively. These differences could be caused by the geographical proximity to Qingdao. The further away a visitor's residence from Qingdao is, the more novel experiences he or she will obtain and, in turn, the more excited feeling that he or she will

achieve.

5.2 Influence of Previous Travel Experience on Visitor Images

Table 5.13 shows the Mann-Whitney U comparisons between first-time and repeat visitors of cognitive images of Qingdao. No statistically significant differences were found in their images in 24 out of 26 cognitive attributes, with p -values ranging from .080 to .969.

Table 5. 13 Influence of Previous Travel Experience on Cognitive Images of Visitors

	<u>First-time visitors</u>		<u>Repeat visitors</u>		Z	p
	n	Mean	n	Mean		
Cognitive image ^a						
Seafood	150	4.33	371	4.49	-2.50	.013*
Accommodation	154	3.95	375	3.99	-.48	.635
Shopping	149	3.82	367	3.93	-1.50	.142
Cultural attractions	152	4.12	374	4.06	-.38	.702
Highway system	145	3.98	372	3.96	-.06	.955
Traffic congestion	145	3.32	369	3.39	-.73	.463
Airline schedules	136	3.74	347	3.67	-.84	.400
Transportation cost	141	3.81	364	3.74	-.91	.365
Public transport	134	3.98	347	3.98	-.04	.969
Night life	139	3.77	358	3.68	-1.30	.186
Relaxing atmosphere	153	4.12	373	4.20	-1.40	.162
Local people	151	4.26	367	4.33	-1.10	.269
Football games	94	3.71	277	3.68	-.17	.863
Beaches	149	4.31	370	4.40	-1.60	.114
Weather	153	4.22	374	4.25	-.10	.917
Green space	153	4.23	376	4.31	-1.30	.187
Squares	153	4.22	371	4.25	-.71	.479
Resorts	134	4.13	359	4.15	-.39	.697
Scenery	151	4.39	370	4.44	-.98	.327
Ethnic attractions	140	4.26	357	4.28	-.26	.797
Golf course	87	4.06	263	4.07	-.09	.931
Special events	133	4.41	352	4.27	-2.10	.033*
Fashion shows	76	3.87	253	3.87	-.18	.854
Architecture	146	4.41	373	4.29	-1.70	.080
Value for money	144	3.79	373	3.80	-.28	.782
Hygiene and cleanliness	147	4.03	376	4.10	-.94	.349

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. * $p < .05$

However, first-time and repeat visitors differed significantly in their images of seafood and special events. Repeat visitors had a better image of seafood than did first-time visitors, while repeat visitors had a worse image of special events than did first-time visitors. These differences could be caused by participants' level of familiarity with these two attributes in Qingdao. It is possible that the more times a participant had eaten seafood in Qingdao, the more likely he or she remembered its freshness and variety compared with seafood in other places. In contrast, the more times an individual participated in special events in Qingdao, the more familiar he or she was with the events. As a result, they may not feel as attracted to or curious about an event as they did when participating for the first time. In summary, previous travel experience, to a small extent, influenced visitors' cognitive images.

The Mann-Whitney *U* results for comparisons between first-time and repeat visitors of affective images are presented in Table 5.14. No statistically significant differences were found between the two groups in any of the four affective attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing. The results indicate that the two groups of visitors had similar affective images of Qingdao in relation to the four attributes. In other words, previous travel experience did not influence visitors' affective images.

Table 5. 14 Influence of Previous Travel Experience on Affective Images of Visitors

	First-time visitors		Repeat visitors		<i>Z</i>	<i>p</i>
	<i>n</i>	Mean	<i>n</i>	Mean		
Affective image ^a						
Arousing-sleepy	154	4.29	376	4.38	-1.40	.150
Exciting-gloomy	154	4.27	376	4.23	-.34	.737
Pleasant-unpleasant	154	4.34	376	4.33	-.02	.982
Relaxing-distressing	154	4.28	376	4.39	-1.70	.087

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

5.3 Influence of Motivations on Visitor Images

Kruskal-Wallis tests were conducted to determine whether there were statistically significant differences among visitors' cognitive images of Qingdao by primary motivation. As shown in Table 5.15, no significant differences were found among four visitor groups (i.e., business,

Table 5. 15 Influence of Primary Motivation on Cognitive Images of Visitors

	Business		Visiting friends & relatives		Entertainment & relaxation		Conference or exhibition		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean	n	Mean		
Cognitive image ^a										
Seafood	118	4.32	85	4.39	223	4.44	60	4.52	4.625	.201
Accommodation	122	3.79	86	3.77	225	3.97	60	4.30	23.102	<.001**
Shopping	122	3.84	83	3.71	218	3.95	60	4.08	8.342	.039*
Cultural attractions	121	4.08	84	4.03	225	4.17	60	4.15	1.997	.573
Highway system	121	3.95	84	4.02	218	3.94	59	3.90	1.013	.798
Traffic congestion	120	3.42	83	3.27	217	3.41	58	3.26	3.088	.378
Airline schedules	110	3.75	75	3.67	213	3.68	56	3.64	1.189	.756
Transportation cost	117	3.68	82	3.73	215	3.80	55	3.80	1.122	.772
Public transport	118	4.08	83	3.92	202	3.92	59	3.83	4.170	.244
Night life	115	3.68	71	3.75	217	3.57	57	3.86	5.592	.133
Relaxing atmosphere	123	4.20	81	4.19	224	4.14	59	4.25	1.800	.615
Local people	119	4.29	81	4.22	223	4.39	59	4.12	4.447	.217
Football games	92	3.55	58	3.93	163	3.66	48	3.92	8.284	.040*
Beaches	123	4.39	83	4.33	217	4.39	60	4.30	1.862	.602
Weather	123	4.30	85	4.26	223	4.21	60	4.37	3.852	.278
Green space	123	4.37	84	4.26	225	4.27	60	4.38	2.294	.514
Squares	123	4.20	81	4.25	223	4.26	58	4.41	3.092	.378
Resorts	114	4.40	81	4.23	207	4.18	59	4.34	6.989	.072
Scenery	120	4.48	85	4.27	221	4.44	60	4.48	6.747	.080
Ethnic attractions	115	4.22	77	4.16	213	4.34	58	4.34	6.215	.102
Golf course	82	4.10	60	4.05	143	4.10	45	4.13	.510	.917
Special events	111	4.38	79	4.23	204	4.37	57	4.14	7.410	.060
Fashion shows	79	3.80	62	3.89	142	3.98	38	3.71	5.431	.143
Architecture	121	4.25	83	4.16	221	4.33	60	4.12	7.654	.054
Value for money	119	3.61	82	3.63	221	3.87	60	4.05	11.260	.010*
Hygiene and cleanliness	122	4.11	84	4.13	223	4.02	60	4.27	5.351	.148

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p*<.05, *p*<.001, df=3

visiting friends and relatives, entertainment and relaxation, and conference or exhibition)

based on primary motivation for 22 out of 26 cognitive attributes, with *p*-values ranging

from .054 to .917. However, four attributes, accommodation, shopping, football games and value for money were found to be significantly different across the four visitor groups.

Mann-Whitney *U* tests were used as post-hoc tests to determine which of the pairs of primary motivation groups was significantly different based on mean rank (Table 5.16). With the Bonferroni adjustment, a significance level of .0083 was used in the paired comparisons.

Comparing the business to the conference or exhibition group showed a statistically significant difference in the attribute of accommodation. Visitors whose major motivation to visit Qingdao was to participate in a conference or exhibition (mean rank = 112.52) had a better image of accommodation than did those whose major motivation was business (mean rank = 81.16).

A comparison between those motivated mainly by visiting friends and relatives and those by attending a conference or exhibition produced statistically significant differences in the attributes of accommodation, shopping and value for money. Visitors whose major motivation to visit Qingdao was to attend a conference or exhibition had a better image of accommodation (mean rank = 90.23), shopping (mean rank = 82.46) and value for money (mean rank = 81.66) than did those whose major motivation was visiting friends and relatives (mean rank = 61.83, 54.00, 64.07, respectively).

Table 5. 16 Influence of Primary Motivation on Cognitive Images of Visitors: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	p
1 vs. 4	Business vs. conference or exhibition	Accommodation	-4.004	<.001
2 vs. 4	Visiting friends and relatives vs. conference or exhibition	Accommodation	-4.322	<.001
		Shopping	-2.744	.006
		Value for money	-2.666	.008
3 vs. 4	Entertainment and relaxation vs. Conference or exhibition	Accommodation	-3.188	.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .0083$

A comparison between those motivated mainly by entertainment and relaxation and those by conference or exhibition showed a statistically significant difference in the attribute of accommodation. Visitors whose major motivation to visit Qingdao was conference or exhibition (mean rank = 171.02) had a better image of accommodation than did those whose major motivation was entertainment and relaxation (mean rank = 135.53).

Kruskal-Wallis tests were performed to determine whether there were statistically significant differences among visitors' affective images of Qingdao by primary motivation (i.e., business, visiting friends and relatives, entertainment and relaxation, conference or exhibition). As shown in Table 5.17, all four affective attributes, arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing were found to be significantly different across the four visitor groups based on primary motivation.

Table 5. 17 Influence of Primary Motivation on Affective Images of Visitors

	<u>Business</u>		<u>Visiting friends & relatives</u>		<u>Entertainment & relaxation</u>		<u>Conference or exhibition</u>		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a										
Arousing-sleepy	123	4.28	86	4.17	225	4.37	60	4.52	9.187	.027*
Exciting-gloomy	123	4.23	86	4.08	225	4.26	60	4.42	8.828	.032*
Pleasant-unpleasant	123	4.15	86	4.24	225	4.38	60	4.62	19.281	<.001**
Relaxing-distressing	123	4.21	86	4.19	225	4.52	60	4.65	26.224	<.001**

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

p*<.05, *p*<.001, df=3

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of primary motivation groups were significantly different based on mean rank (Table 5.18). With the Bonferroni adjustment, a significance level of .0083 was used in the paired comparisons.

Comparing the business to the entertainment and relaxation group showed statistically

significant differences in the attributes of pleasant-unpleasant and relaxing-distressing. Visitors whose major motivation to visit Qingdao was entertainment and relaxation (mean rank = 184.37, 185.33, respectively) felt more pleasant and relaxed than did those whose major motivation was business (mean rank = 156.44, 154.69).

A comparison between those motivated mainly by business and those by attending a conference or exhibition produced statistically significant differences in the attributes of pleasant-unpleasant and relaxing-distressing. Visitors whose major motivation to Qingdao was to participate in a conference or exhibition (mean rank = 111.80, 111.14, respectively) felt more pleasant and relaxed than did those whose major motivation was business (mean rank = 82.34, 82.66, respectively).

A comparison between those motivated mainly by visiting friends and relatives and those by entertainment and relaxation showed a statistically significant difference in the attribute of relaxing-distressing. Visitors whose major motivation to visit Qingdao was entertainment and relaxation (mean rank = 165.78) felt more relaxed than did those whose major motivation was visiting friends and relatives (mean rank = 130.40).

Table 5. 18 Influence of Primary Motivation on Affective Images of Visitors: Paired Comparison

Group	Comparison	Affective image ^a	Z	p
1 vs. 3	Business vs. entertainment and relaxation	Pleasant-unpleasant	-2.696	.007
		Relaxing-distressing	-3.000	.003
1 vs. 4	Business vs. conference or exhibition	Pleasant-unpleasant	-3.847	<.001
		Relaxing-distressing	-3.757	<.001
2 vs. 3	Visiting friends and relatives vs. entertainment and relaxation	Relaxing-distressing	-3.437	.001
2 vs. 4	Visiting friends and relatives vs. conference or exhibition	Arousing-sleepy	-2.942	.003
		Exciting-gloomy	-2.873	.004
		Pleasant-unpleasant	-3.499	<.001
		Relaxing-distressing	-4.290	<.001

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing. *p*<.0083

A comparison between those motivated mainly by visiting friends and relatives and those by conference or exhibition showed statistically significant differences in the attributes of arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing. Visitors whose major motivation to visit Qingdao was to attend a conference or exhibition (mean rank = 84.64, 84.63, 86.63, 89.68, respectively) felt more aroused, excited, pleasant and relaxed than did those whose major motivation was visiting friends and relatives (mean rank = 65.73, 65.73, 64.34, 62.22, respectively).

The influence of primary motivation on visitors' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the four visitor groups varied in their images of 4 of 26 cognitive image attributes: accommodation, shopping, football games and value for money. This indicates that primary motivation, to some extent, influenced visitors' cognitive images. The post-hoc Mann-Whitney tests revealed that most image differences existed between those motivated mainly by visiting friends and relatives and those by attending a conference or exhibition. Fewer differences existed between those motivated mainly by business and those by attending a conference or exhibition, and between those motivated primarily by entertainment and relaxation and those by attending a conference or exhibition. Additionally, the results showed that those motivated mainly by conference or exhibition had a better image of accommodation than those traveling for business purposes, visiting friends and relatives, and for entertainment and relaxation.

The Kruskal-Wallis tests also showed that the four visitor groups varied in their images of all four affective image attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing. This indicates that primary motivation influenced visitors' affective

images. The post-hoc Mann-Whitney tests revealed that more image differences existed between those motivated mainly by visiting friends and relatives and those attending a conference or exhibition than for other pairs.

5.4 Influence of Information Sources on Visitor Images

Kruskal-Wallis tests were conducted to determine whether or not there were statistically significant differences among visitors' cognitive images of Qingdao according to most important source of information used. As shown in Table 5.19, no significant differences were found among eight visitor groups (i.e., tourist brochures; mass-media advertising; travel agents; the Internet; word-of-mouth; guidebooks; news; magazines, documentary, or TV) based on most important source used for 21 out of 26 cognitive attributes, with p -values ranging from .076 to .714. However, five attributes, transportation cost, night life, football games, weather, and hygiene and cleanliness were found to be significantly different across the eight visitor groups.

Mann-Whitney U tests were used as post-hoc tests to determine which of the pairs of groups were significantly different based on mean rank, with regard to most important source used. With the Bonferroni adjustment, a significance level of .0018 was used in the paired comparisons.

A statistically significant difference was found in the attribute of football games between those who used the Internet and those who used word-of-mouth as the most important source for constructing their images of Qingdao. The Internet group (mean rank = 98.45) had a more positive image of football games than did those who used word-of-mouth as the most important source (mean rank = 68.48). No difference was found in the paired comparisons for the

attributes of transportation cost, night life, weather, and hygiene and cleanliness.

Table 5. 19 Influence of Most Important Source Used on Cognitive Images of Visitors

	Tourist		Mass-media					Magazines,					Chi-Square	p				
	<u>brochures</u>		<u>advertising</u>		<u>Travel agents</u>		<u>Internet</u>		<u>Word-of-mouth</u>		<u>Guidebooks</u>				<u>News</u>		<u>documentary, or TV</u>	
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean			n	Mean	n	Mean
Cognitive image ^a																		
Seafood	48	452	93	446	62	442	147	430	89	450	31	426	43	460	25	416	1170	.111
Accommodation	49	388	93	404	64	403	150	401	89	403	32	388	43	391	24	388	4555	.714
Shopping	49	363	90	404	64	400	148	391	83	396	32	391	42	379	23	378	11640	.113
Cultural attractions	49	416	92	413	64	416	150	407	87	407	32	366	42	410	24	425	12189	.099
Highway system	47	398	93	414	64	406	147	389	83	383	31	390	43	407	24	379	5285	.625
Traffic congestion	47	319	89	329	64	366	148	332	83	341	31	323	43	319	24	346	889	.264
Airline schedules	42	360	86	366	60	362	137	377	80	390	28	350	42	343	20	350	1074	.149
Transportation cost	48	354	92	368	62	397	146	385	84	380	28	404	40	388	21	343	1665	.018*
Public transport	48	381	86	386	59	400	142	406	79	401	24	379	38	418	21	381	1088	.144
Night life	45	396	90	399	62	381	145	386	78	351	29	355	41	373	22	359	17189	.017*
Relaxing atmosphere	49	412	93	411	64	416	148	430	88	431	31	410	42	390	24	392	13761	.056
Local people	49	437	92	422	64	442	145	437	88	431	31	413	43	421	24	408	826	.308
Football games	33	345	75	381	46	363	114	396	61	338	19	342	27	367	14	350	2323	.002*
Beaches	48	440	92	441	64	438	149	442	84	438	31	416	43	435	24	408	780	.351
Weather	48	421	93	424	64	431	150	441	89	416	31	432	43	409	24	404	14485	.044*
Green space	49	437	93	422	64	427	150	432	89	443	31	400	43	412	25	444	12472	.086
Squares	48	392	92	417	63	429	150	431	86	430	31	429	43	428	24	446	1283	.076
Resorts	48	398	90	416	61	421	146	417	76	424	27	419	38	392	25	416	8749	.271
Scenery	48	438	91	443	64	452	149	442	87	440	29	418	43	437	25	456	10161	.180
Ethnic attractions	46	424	85	424	57	435	148	428	85	431	28	418	38	429	23	413	3104	.875
Golf course	34	418	66	409	39	415	121	411	49	400	18	406	33	385	10	390	657	.481
Special events	46	413	88	420	53	434	136	432	81	447	31	400	41	434	22	432	12484	.086
Fashion shows	33	382	66	403	35	389	103	392	50	376	18	400	29	352	13	385	1006	.183
Architecture	49	416	92	416	62	437	148	432	89	426	30	397	40	420	25	432	9761	.203
Value for money	48	375	91	380	61	392	147	380	89	389	30	370	42	388	23	343	830	.300
Hygiene and cleanliness	49	420	92	398	62	427	148	419	89	404	30	393	43	407	25	388	1424	.047*

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, $df = 7$

Kruskal-Wallis tests were conducted to determine whether or not there were statistically

significant differences among visitors' affective images of Qingdao according to most important source of information used. As shown in Table 5.20, no significant differences were found among eight visitor groups (i.e., those using tourist brochures; mass-media advertising; travel agents; the Internet; word-of-mouth; guidebooks; news; magazines, documentary, or TV) for 3 out of 4 affective attributes: arousing-sleepy, exciting-gloomy, and pleasant-unpleasant. However, one attribute, relaxing-distressing, was found to be significantly different across the eight visitor groups.

Table 5. 20 Influence of Most Important Source Used on Affective Images of Visitors

	Tourist		Mass-media				Internet		Word-of-mouth		Guidebooks		News		Magazines		Chi-Square	p
	brochures		advertising		Travel agents		Internet		Word-of-mouth		Guidebooks		News		documentary or TV			
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a																		
Arousing-sleepy	49	4.35	93	4.37	64	4.47	150	4.29	89	4.44	32	4.41	43	4.23	25	4.16	7.681	.362
Exciting-gloomy	49	4.27	93	4.33	64	4.41	150	4.17	89	4.30	32	4.41	43	4.12	25	4.00	9.492	.219
Pleasant-unpleasant	49	4.06	93	4.41	64	4.28	150	4.29	89	4.46	32	4.50	43	4.26	25	4.40	13.424	.062
Relaxing-distressing	49	4.12	93	4.42	64	4.34	150	4.32	89	4.54	32	4.44	43	4.35	25	4.04	19.213	.008*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

* $p < .05$, $df = 7$

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of visitor groups was significantly different based on mean rank, with regard to most important information source used. With the Bonferroni adjustment, a significance level of .0018 was used in the paired comparisons. A statistically significant difference was found in the attribute of relaxing-distressing between those who used tourist brochures and those who used word-of-mouth as the most important source for constructing their images of Qingdao. The word-of-mouth group (mean rank = 77.12) felt more relaxed in Qingdao than did those who used tourist brochures as the most important information source (mean rank = 55.66).

Kruskal-Wallis tests were conducted to determine whether there were statistically

significant differences among visitors' cognitive images of Qingdao according to number of sources used. As shown in Table 5.21, no significant differences were found among three visitor groups (i.e., 1-3 sources, 4-6 sources, and 7-10 sources) based on number of sources used for 21 out of 26 cognitive attributes, with *p*-values ranging from .056 to .909. However, five attributes, seafood, shopping, cultural attractions, traffic congestions and night life were found to be significantly different across the three visitor groups.

Table 5. 21 Influence of Number of Sources Used on Cognitive Images of Visitors

	1-3 sources		4-6 sources		7-10 sources		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Cognitive image ^a								
Seafood	268	4.55	233	4.41	37	4.14	9.681	.008*
Accommodation	270	4.06	238	3.91	37	3.89	5.694	.058
Shopping	264	3.95	231	3.94	37	3.35	13.094	.001*
Cultural attractions	270	4.13	234	4.10	37	3.73	10.503	.005
Highway system	259	3.99	237	3.97	37	3.95	.280	.870
Traffic congestion	261	3.43	232	3.38	36	2.72	14.932	.001*
Airline schedules	239	3.79	221	3.63	34	3.50	5.772	.056
Transportation cost	261	3.79	225	3.76	36	3.61	3.017	.221
Public transport	247	4.02	221	3.95	32	3.88	1.930	.381
Night life	251	3.80	225	3.73	33	3.24	7.931	.019*
Relaxing atmosphere	267	4.16	235	4.21	37	4.06	1.740	.419
Local people	264	4.34	234	4.29	36	4.28	.613	.736
Football games	187	3.72	177	3.69	21	3.76	.323	.851
Beaches	262	4.36	237	4.42	37	4.16	5.425	.066
Weather	269	4.22	237	4.30	37	4.27	1.615	.446
Green space	271	4.30	236	4.33	37	4.27	.841	.657
Squares	266	4.24	234	4.29	37	4.11	2.850	.240
Resorts	256	4.14	221	4.17	33	4.09	.191	.909
Scenery	263	4.38	237	4.51	37	4.32	4.984	.083
Ethnic attractions	253	4.30	223	4.30	36	4.03	3.565	.168
Golf course	178	4.09	162	4.02	26	4.23	2.196	.334
Special events	244	4.30	219	4.33	36	4.39	.593	.743
Fashion shows	160	3.80	161	3.95	22	3.86	2.492	.288
Architecture	268	4.21	232	4.30	37	4.24	3.067	.216
Value for money	269	3.82	228	3.78	37	3.78	.609	.737
Hygiene and cleanliness	270	4.18	234	4.08	37	3.84	4.738	.094

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

**p*<.05, df=2

Mann-Whitney *U* tests were performed as post-hoc tests to determine which of the pairs of visitor groups was significantly different based on mean rank, with regard to number of sources used (Table 5.22). With the Bonferroni adjustment, a significance level of .017 was used in the paired comparisons.

A comparison between visitors who used 1-3 sources and those who used 7-10 sources showed statistically significant differences in the attributes of seafood, shopping, cultural attractions, traffic congestion and night life. Visitors who used 1-3 information sources (mean rank = 157.14, 157.32, 159.53, 155.90, 147.15, respectively) had a more positive image of seafood, shopping, cultural attractions, traffic congestion and night life than those who used 7-10 sources (mean rank = 123.01, 105.91, 113.64, 98.96, 107.11, respectively).

A comparison between visitors who used 4 to 6 sources and those who used 7-10 sources showed statistically significant differences in the attributes of shopping, cultural attractions and traffic congestion. Visitors who used 4-6 sources (mean rank = 140.59, 141.01, 140.72, respectively) had a better image of shopping, cultural attractions and traffic congestion than did those who used 7-10 sources (mean rank = 96.46, 104.28, 94.39, respectively) for constructing their images of Qingdao.

Table 5. 22 Influence of Number of Sources Used on Cognitive Images of Visitors: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	P
1 vs. 3	1-3 vs. 7-10 sources	Seafood	-2.570	.010
		Shopping	-3.572	<.001
		Cultural attractions	-3.074	.001
		Traffic congestion	-3.933	<.001
		Night life	-2.807	.005
2 vs. 3	4-6 vs. 7-10 sources	Shopping	-3.395	.001
		Cultural attractions	-2.868	.004
		Traffic congestion	-3.479	.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .017$

Kruskal-Wallis tests were conducted to determine whether there were statistically

significant differences among visitors' affective images of Qingdao according to number of sources used. As shown in Table 5.23, no significant differences were found among three visitor groups (i.e., 1-3 sources, 4-6 sources, and 7-10 sources) for all four affective attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing. This suggests that the three groups of visitors had similar affective images of Qingdao in relation to these four attributes.

Table 5. 23 Influence of Number of Sources Used on Affective Images of Visitors

	1-3 sources		4-6 sources		7-10 sources		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Affective image ^a								
Arousing-sleepy	271	4.38	238	4.34	37	4.08	5.796	.055
Exciting-gloomy	271	4.32	238	4.18	37	4.11	5.706	.058
Pleasant-unpleasant	271	4.37	238	4.27	37	4.27	2.286	.319
Relaxing-distressing	271	4.41	238	4.32	37	4.22	3.136	.208

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

df=2

The influence of information sources on visitors' cognitive and affective images is summarized here. For the most important source used, the Kruskal-Wallis tests showed that the eight visitor groups varied in their images of 5 of 26 cognitive image attributes. This indicates that the most important source used, to some extent, influenced visitors' cognitive images. Only one significant difference was found in the attribute of football games between those who used the Internet and those who used word-of-mouth by the post-hoc Mann-Whitney tests.

The Kruskal-Wallis tests also showed that the eight visitor groups varied in their affective images of relaxing-distressing. One difference was found in this attribute between those who used tourist brochures and those who used word-of-mouth by the Mann-Whitney *U* tests.

For the number of sources used, the Kruskal-Wallis tests showed that the eight visitor

groups varied in their images of 5 of 26 cognitive image attributes: seafood, shopping, cultural attractions, traffic congestion and night life. This indicates that the number of sources used, to some extent, influenced visitors' cognitive images. Significant differences were found in these five attributes between those who used 1-3 sources and those who used 7-10 sources and between those who used 4-6 sources and those who used 7-10 sources by the post-hoc Mann-Whitney tests. The results showed that visitors who used fewer sources had more positive cognitive images than those who used more sources. One possible reason is that people who are less knowledgeable about a place are more likely to develop an exaggerated stereotypical image of it (Stern & Krakover, 1993). When they have more knowledge about the place, their images will be less extreme and more fine-tuned.

No significant difference was found by the Kruskal-Wallis tests in the four affective image attributes among the eight visitor groups. This indicates that the number of sources used did not influence visitors' affective images.

5.5 Influence of Place Attachment on Visitor Images

Spearman's rho correlations were computed to examine the relationships between place attachment and visitors' images of Qingdao (4 affective and 26 cognitive image attributes). The relationships between 4 attachment items and 30 image attributes were computed one by one (Table 5.24). The results showed that attachment item 1 (visiting Qingdao says a lot about who I am) was significantly and positively correlated with 2 affective attributes, i.e., arousing-sleepy and relaxing-distressing and 24 cognitive attributes, e.g., seafood and accommodation. Attachment item 2 (I can identify easily with this destination) was significantly and positively correlated with 3 affective attributes, i.e., arousing-sleepy,

pleasant-unpleasant and relaxing-distressing, and with 17 cognitive attributes, e.g., seafood and accommodation. Attachment item 3 (I get more satisfaction from visiting Qingdao than from visiting any other destinations) was significantly and positively correlated with all 4 affective attributes, e.g., arousing-sleepy and exciting-gloomy, and 24 cognitive attributes, e.g., seafood and accommodation. Attachment item 4 (I enjoy doing the types of activities I do in Qingdao more than at any other destinations) was significantly and positively correlated with three affective attributes, i.e., arousing-sleepy, exciting-gloomy and relaxing-distressing, and

Table 5. 24 Relationship between Place Attachment and Visitor Images

	Attachment1	Attachment2	Attachment3	Attachment4
Affective image^a				
Arousing-sleepy	.115 (.007)	.094 (.025)**	.203 (<.001)**	.191 (<.001)**
Exciting-gloomy	.069 (.104)	.063 (.132)	.186 (<.001)**	.179 (<.001)**
Pleasant-unpleasant	.014 (.743)	.093 (.026)*	.121 (.004)*	.066 (.114)
Relaxing-distressing	.094 (.028)*	.125 (.003)*	.118 (.005)*	.139 (.001)*
Cognitive image^b				
Seafood	.208 (<.001)**	.176 (<.001)**	.257 (<.001)**	.294 (<.001)**
Accommodation	.106 (.013)*	.117 (.005)*	.164 (<.001)**	.225 (<.001)**
Shopping	.214 (<.001)**	.138 (.001)*	.236 (<.001)**	.247 (<.001)**
Cultural attraction	.175 (<.001)**	.096 (.023)*	.241 (<.001)**	.252 (<.001)**
Highway system	.091 (.034)*	.072 (.089)	.147 (<.001)**	.112 (.008)*
Traffic congestion	.116 (.007)*	.081 (.055)	.066 (.119)	.133 (.002)*
Airline schedules	.070 (.116)	.096 (.029)*	.087 (.047)*	.093 (.035)*
Transportation cost	.136 (.002)*	.110 (.010)*	.130 (.002)*	.113 (.008)*
Public transport	.222 (<.001)**	.151 (<.001)**	.177 (<.001)**	.203 (<.001)**

Night life	.048 (.274)	.028 (.517)	.169 (<.001)**	.170 (<.001)**
Relaxing atmosphere	.159 (<.001)**	.118 (.005)*	.182 (<.001)**	.180 (<.001)**
Local people	.304 (<.001)**	.191 (<.001)**	.290 (<.001)**	.267 (<.001)**
Football games	.191 (<.001)**	.084 (.088)	.106 (.033)*	.132 (.007)*
Beaches	.269 (<.001)**	.184 (<.001)**	.205 (<.001)**	.217 (<.001)**
Weather	.172 (<.001)**	.067 (.111)	.162 (<.001)**	.163 (<.001)**
Green space	.130 (.002)*	.068 (.105)	.132 (.002)*	.118 (.005)*
Squares	.182 (<.001)**	.133 (.002)*	.195 (<.001)**	.185 (<.001)**
Resorts	.255 (<.001)**	.154 (<.001)**	.187 (<.001)**	.167 (<.001)**
Scenery	.174 (<.001)**	.152 (<.001)**	.169 (<.001)**	.118 (.005)*
Ethnic attractions	.177 (<.001)**	.080 (.064)*	.178 (<.001)**	.143 (.001)*
Golf course	.238 (<.001)**	.173 (.001)*	.230 (<.001)**	.269 (<.001)**
Special events	.100 (.024)*	.047 (.278)	.058 (.185)	.089 (.041)*
Fashion shows	.277 (<.001)**	.098 (.061)	.186 (<.001)**	.155 (.003)*
Architecture	.174 (<.001)**	.203 (<.001)**	.177 (<.001)**	.172 (<.001)**
Value for money	.185 (<.001)**	.161 (<.001)**	.229 (<.001)**	.241 (<.001)**
Hygiene and cleanliness	.263 (<.001)**	.220 (<.001)**	.236 (<.001)**	.274 (<.001)**

Note: Correlations reported above with probability below in parentheses.

^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

^b1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$

all 26 cognitive attributes, e.g., seafood and accommodation. The results indicate that the more the respondents were attached to Qingdao, the more favourable were their cognitive and affective images. However, the critical values of the correlation coefficients (r) identified in the

abovementioned tests were less than .5, indicating that all these correlations were weak (Pallent, 2007).

5.6 Influence of Importance of German Heritage, the 2008 Olympic Games, and Qingdao International Beer Festival on Visitor Images

Spearman's rho correlations were calculated to examine the relationships between visitors' images of Qingdao (4 affective and 26 cognitive image attributes) and the importance of German heritage, the 2008 Olympic Games and the Qingdao International Beer Festival. The results of these analyses are presented in Table 5.25. The importance of German heritage was significantly positively correlated with 8 cognitive image attributes, e.g., highway system and relaxing atmosphere with weak correlations ($r_s < .5$). This indicates that the more important visitors perceived German heritage to be, the more favourable were their images on these 8 cognitive attributes. No significant correlation was found between the importance of German heritage and any affective attributes.

The importance of the 2008 Olympic Games was found to be significantly and positively correlated with 1 affective attribute, i.e., exciting-gloomy and 23 cognitive attributes, e.g., seafood and accommodation with weak correlations ($r_s < .5$). This indicates that the more important visitors perceived the 2008 Olympic Games to be, the more favourable were their images on these 24 attributes.

The importance of the Qingdao International Beer Festival was found to be significantly and positively correlated with 6 cognitive attributes, e.g., highway system and public transport with weak correlations ($r_s < .5$). This indicates that the more important visitors perceived the Qingdao International Beer Festival to be, the more favourable were their images on these 6

attributes. No significant correlation was found between the importance of the Qingdao International Beer Festival and any affective attributes.

Table 5. 25 Relationships between Visitor Images and Importance of Ethnic Attractions, the 2008 Olympic Games, and Qingdao International Beer Festival

	German heritage	2008 Olympic Games	Beer Festival
Affective image ^a			
Arousing-sleepy	.053 (.226)	.087 (.037)*	.027 (.528)
Exciting-gloomy	.054 (.218)	.043 (.310)	-.040 (.348)
Pleasant-unpleasant	-.025 (.559)	.059 (.161)	.004 (.926)
Relaxing-distressing	.046 (.289)	.075 (.074)	.025 (.552)
Cognitive image ^b			
Seafood	.018 (.681)	.109 (.010)*	.057 (.177)
Accommodation	.015 (.725)	.132 (.002)*	.005 (.912)
Shopping	.072 (.104)	.202 (<.001)**	.073 (.088)
Cultural attraction	.013 (.772)	.143 (.001)*	.036 (.396)
Highway system	.095 (.032)*	.169 (<.001)**	.123 (.004)*
Traffic congestion	.027 (.541)	.043 (.317)	.028 (.513)
Airline schedules	-.009 (.838)	.089 (.043)*	.075 (.092)
Transportation cost	.052 (.247)	.139 (.001)*	-.018 (.682)
Public transport	.026 (.549)	.113 (.010)*	.135 (.002)*
Night life	.039 (.385)	.088 (.041)*	.052 (.230)
Relaxing atmosphere	.137 (<.001)**	.101 (.017)*	.052 (.218)
Local people	.142 (.001)*	.115 (.006)*	.154 (<.001)**
Football games	.061 (.240)	-.039 (.426)	.045 (.360)
Beaches	.076	.091	.121

	(.086)	(.031)*	(.004)*
Weather	.119	.093	-.008
	(.007)*	(.027)*	(.848)
Green space	.066	.111	.016
	(.129)	(.008)*	(.704)
Squares	.071	.133	.039
	(.106)	(.002)*	(.361)
Resorts	.056	.133	-.048
	(.214)	(.002)*	(.267)
Scenery	.054	.138	.088
	(.217)	(.001)*	(.038)*
Ethnic attractions	.104	.103	.049
	(.019)*	(.017)*	(.246)
Golf course	.093	.221	.087
	(.080)	(<.001)**	(.087)
Special events	.027	.024	.042
	(.558)	(.590)	(.345)
Fashion shows	.180	.162	.020
	(.001)*	(.002)*	(.711)
Architecture	.105	.166	(.053)
	(.017)*	(<.001)**	(.217)
Value for money	-.058	.088	.025
	(.192)	(.037)*	(.553)
Hygiene and cleanliness	.198	.150	.137
	(<.001)**	(<.001)**	(.001)*

Note: Correlations reported above with probability below in parentheses

^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

^b1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. * $p < .05$, ** $p < .001$

5.7 Summary of the Chapter

This chapter has presented the visitor survey results to answer central research question two. It has reported whether or not visitors' images differed depending on sex, education, age, occupation, place of residence, previous travel experience, primary motivation, information sources, place attachment, and the importance of German Heritage, the 2008 Olympic Games, and Qingdao International Beer Festival. Results of Mann-Whitney U and Kruskal-Wallis tests showed that sex, education, place of residence, and previous travel experience only significantly affected visitors' images of one or two attributes, while age, occupation, primary

motivation, most important information source used and number of sources used significantly influenced visitors' images of 5 to 8 attributes. Results of Spearman's Rank Correlation tests also showed that place attachment and importance of the 2008 Olympic Games were significantly positively correlated with most of the image attributes examined in this study, while importance of German Heritage and Qingdao International Beer Festival were significantly positively correlated with fewer attributes (8 and 6 attributes, respectively). The correlations identified were all weak. In the next chapter, factors that may affect the image construction of residents, particularly socio-demographic factors, are explored.

Chapter 6 Factors Influencing Residents' Image Formation

This chapter presents the results of analyses used to determine whether or not certain factors influence the cognitive and affective images of residents of Qingdao. Factors examined include socio-demographic characteristics such as sex, education, age, occupation, length of residence; information sources, place attachment; and the importance of German heritage, the 2008 Olympic Games and the Qingdao International Beer Festival. Mann-Whitney *U*, Kruskal-Wallis and Spearman's Rank Correlation tests were used to investigate the significance of the influence of these factors. A summary of the chapter is provided at its conclusion.

6.1 Influence of Socio-demographic Characteristics on Resident Images

6.1.1 Influence of Sex on Resident Images

Mann-Whitney tests were performed to investigate the effect of sex on the cognitive images of Qingdao held by residents (Table 6.1). The results revealed no significant differences between male and female residents in their images of 20 out of 26 cognitive attributes, with *p*-values ranging from .100 to .984; however, the two groups differed significantly in their images of six attributes: seafood, accommodation, traffic congestion, transportation cost, football games and scenery. Male residents had a more positive image of seafood, accommodation and scenery than did females, while males had a more negative image of traffic congestion, transportation cost and football games than did their counterparts. The results indicate that sex, to some extent, influenced residents' cognitive images.

Table 6. 1 Influence of Sex on Cognitive Images of Residents

	Male		Female		Z	p
	n	Mean	n	Mean		
Cognitive image ^a						
Seafood	157	4.69	180	4.56	-2.7	.007*
Accommodation	157	4.04	180	3.86	-2.3	.021*
Shopping	157	3.77	180	3.86	-.83	.404
Cultural attractions	157	3.80	180	3.72	-.37	.712
Highway system	157	4.26	180	4.12	-1.5	.130
Traffic congestion	147	2.76	167	3.01	-2.2	.025*
Airline schedules	146	3.90	168	3.98	-.48	.630
Transportation cost	152	3.65	180	3.86	-2.0	.047*
Public transport	157	4.06	175	3.92	-1.6	.101
Night life	142	3.77	174	3.61	-1.4	.162
Relaxing atmosphere	157	4.09	180	4.06	-.54	.592
Local people	157	4.46	176	4.31	-1.6	.100
Football games	144	3.65	170	3.85	-2.2	.030*
Beaches	157	4.58	180	4.70	-1.0	.313
Weather	157	4.42	180	4.32	-1.1	.285
Green space	157	4.35	180	4.38	-.29	.774
Squares	157	4.31	180	4.30	-.02	.980
Resorts	152	4.20	180	4.18	-.19	.850
Scenery	157	4.67	175	4.38	-3.2	.001*
Ethnic attractions	157	4.34	175	4.16	-1.5	.126
Golf course	121	4.14	159	3.92	-1.5	.139
Special events	147	4.35	176	4.26	-1.5	.146
Fashion shows	142	3.85	167	3.76	-1.1	.269
Architecture	157	4.34	180	4.29	-.02	.984
Value for money	157	3.73	180	3.71	-.08	.940
Hygiene and cleanliness	157	4.31	180	4.37	-1.2	.248

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$

Table 6.2 compares the affective images of Qingdao perceived by male and female residents. There were no significant differences between the two groups for three affective attributes: arousing-sleepy, exciting-gloomy and relaxing-distressing. However, the two groups of residents were found to be significantly different in their images of pleasant-unpleasant. Female residents were likely to feel more pleasant in Qingdao than their counterparts. This indicates that sex, to some extent, influenced residents' affective images.

Table 6. 2 Influence of Sex on Affective Images of Residents

	Male		Female		Z	p
	n	Mean	n	Mean		
Affective image ^a						
Arousing-sleepy	157	4.43	180	4.52	-1.00	.306
Exciting-gloomy	157	4.32	180	4.43	-1.50	.125
Pleasant-unpleasant	157	4.33	180	4.51	-2.40	.017*
Relaxing-distressing	157	4.23	180	4.33	-.22	.828

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

* $p < .05$

6.1.2 Influence of Education on Resident Images

Mann-Whitney *U* tests were performed to determine whether or not there were significant differences between residents of different educational levels (high school or lower, college or higher) in cognitive images (Table 6.3). Of the 26 attributes assessed, 9 showed significant differences between the two groups of residents, with *p*-values less than .05. These attributes included airline schedules, transportation cost, night life, local people, football games, beaches, resorts, scenery and special events. Residents with high school or lower education had a better image of airline schedules, transportation cost, local people, football games, beaches, resorts and scenery than did their counterparts, while they held a worse image of night life and special events than did those with college or higher level of education. Of the remaining 17 cognitive attributes, no significant differences were found between the two groups of residents. The results indicate that education, to some extent, influenced residents' cognitive images.

Table 6. 3 Influence of Education on Cognitive Images of Residents

	<u>High school or lower</u>		<u>College or higher</u>		Z	p
	n	Mean	n	Mean		
Cognitive image ^a						
Seafood	107	4.66	230	4.60	-.46	.643
Accommodation	107	3.97	230	3.93	-.35	.728
Shopping	107	3.78	230	3.84	-1.2	.218
Cultural attractions	107	3.84	230	3.71	-.83	.409
Highway system	107	4.23	230	4.16	-.13	.895
Traffic congestion	102	2.80	212	2.93	-1.1	.274
Airline schedules	102	4.10	212	3.87	-2.4	.017*
Transportation cost	107	3.95	225	3.67	-2.2	.025*
Public transport	107	3.92	225	4.02	-.83	.408
Night life	100	3.48	216	3.78	-2.6	.008*
Relaxing atmosphere	107	4.00	230	4.11	-1.7	.091
Local people	103	4.63	230	4.27	-4.1	<.001**
Football games	101	3.96	213	3.66	-2.8	.005*
Beaches	107	4.75	230	4.60	-2.3	.021*
Weather	107	4.43	230	4.34	-1.5	.146
Green space	107	4.48	230	4.31	-1.9	.063
Squares	107	4.38	230	4.26	-1.9	.059
Resorts	107	4.38	225	4.09	-3.3	.001*
Scenery	107	4.63	225	4.26	-2.4	.015*
Ethnic attractions	107	4.24	225	4.25	-.49	.627
Golf course	97	4.03	183	4.01	-.45	.654
Special events	99	4.12	224	4.38	-3.3	.001*
Fashion shows	94	3.69	215	3.85	-1.8	.072
Architecture	107	4.29	230	4.33	-.20	.842
Value for money	107	3.64	230	3.75	-1.0	.310
Hygiene and cleanliness	107	4.30	230	4.36	-.32	.746

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$

Table 6.4 compares the affective images of residents of two educational levels. The results showed that residents with a high school or lower education and those with a college or higher education differed significantly in their images of two attributes: pleasant-unpleasant and relaxing-distressing. The results showed that those with a high school or lower education felt more pleasant and relaxed in Qingdao than did their counterparts. No significant

differences were found between the two groups of residents in their images of the other two attributes, arousing-sleepy and exciting-gloomy. The results indicate that education, to some extent, influenced residents' affective images.

Table 6. 4 Influence of Education on Affective Images of Residents

	<u>High school or lower</u>		<u>College or higher</u>		Z	p
	n	Mean	n	Mean		
^a Affective image						
Arousing-sleepy	107	4.57	230	4.44	-1.8	.072
Exciting-gloomy	107	4.40	230	4.37	-.32	.751
Pleasant-unpleasant	107	4.54	230	4.37	-3.0	.003*
Relaxing-distressing	107	4.54	230	4.38	-2.2	.029*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

* $p < .05$

6.1.3 Influence of Age on Resident Images

Kruskal-Wallis tests were conducted to determine whether or not there were statistically significant differences among residents' cognitive images of Qingdao by age. As shown in Table 6.5, no significant differences were found among three age groups (i.e., 18-24, 25-44, and 45-and-over) for 12 out of 26 cognitive attributes, with p -values ranging from .150 to .764. However, 14 attributes, e.g., seafood, cultural attractions and transportation cost, were found to be significantly different across the three age groups.

Mann-Whitney U tests were conducted as post-hoc tests to determine which of the pairs of age groups were significantly different based on mean rank (Table 6.6). With the Bonferroni adjustment, a significance level of .017 was used in the paired comparisons.

In comparisons between the 18-24 and 25-44 groups, the results showed statistically significant differences in the attributes of seafood, transportation cost, relaxing atmosphere, squares, golf courses, architecture, and hygiene and cleanliness. Residents in the age group

18-24 (mean rank = 142.15, 144.53, 153.50, respectively) had a better image of relaxing atmosphere, architecture, and hygiene and cleanliness than did those in the 25-44 age group (mean rank = 118.68, 116.81, 109.78, respectively). Conversely, residents in the age group 25-44 (mean rank = 139.19, 137.39, 139.15, 113.27, respectively) had a better image of seafood, transportation cost, squares and golf courses than did those in the 18-24 age group (mean rank = 116.01, 111.98, 116.07, 90.63, respectively).

Table 6. 5 Influence of Age on Cognitive Images of Residents

	18-24		25-44		45-and-over		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Cognitive image ^a								
Seafood	113	4.47	144	4.70	80	4.69	9.842	.007*
Accommodation	113	3.85	144	3.98	80	4.03	3.442	.181
Shopping	113	3.74	144	3.90	80	3.78	1.189	.552
Cultural attractions	113	3.92	144	3.71	80	3.60	6.166	.046*
Highway system	113	4.11	144	4.24	80	4.19	.538	.764
Traffic congestion	97	2.73	138	2.96	79	2.95	3.694	.158
Airline schedules	98	4.04	136	3.92	80	3.88	1.823	.402
Transportation cost	108	3.45	144	3.84	80	4.04	15.366	<.001**
Public transport	108	3.76	144	4.08	80	4.13	6.911	.032*
Night life	102	3.49	136	3.60	78	4.09	20.592	<.001**
Relaxing atmosphere	113	4.19	144	3.99	80	4.08	7.272	.026*
Local people	113	4.38	140	4.36	80	4.41	3.795	.150
Football games	104	3.80	133	3.74	77	3.74	.982	.612
Beaches	113	4.60	144	4.64	80	4.71	2.077	.354
Weather	113	4.31	144	4.44	80	4.31	1.586	.452
Green space	113	4.28	144	4.42	80	4.39	1.642	.440
Squares	113	4.17	144	4.40	80	4.30	7.625	.022*
Resorts	108	4.12	144	4.25	80	4.16	2.029	.363
Scenery	108	4.31	144	4.56	80	4.70	11.417	.003*
Ethnic attractions	108	4.06	144	4.28	80	4.43	6.368	.041*
Golf course	93	3.81	112	4.21	75	3.99	8.846	.012*
Special events	108	4.16	135	4.36	80	4.38	3.204	.201
Fashion shows	98	3.94	131	3.69	80	3.80	6.041	.049*
Architecture	113	4.47	144	4.19	80	4.33	10.970	.004*
Value for money	113	3.59	144	3.60	80	4.09	17.270	<.001*
Hygiene and cleanliness	113	4.57	144	4.11	80	4.43	27.684	<.001*

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p*<.05, *p*<.001, df=2

In comparisons between the 18-24 and 45-and-over groups, the results showed statistically significant differences in the attributes of transportation cost, night life, scenery, ethnic attractions and value for money. Residents in the age group 45-and-over (mean rank = 110.93, 106.42, 107.29, 105.12, 113.66, respectively) had a better image of transportation cost, night life, scenery, ethnic attractions and value for money than did those in the 18-24 age group (mean rank = 82.33, 78.33, 85.03, 86.63, 85.20, respectively).

Table 6. 6 Influence of Age on Cognitive Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	p
1 vs. 2	18-24 vs. 25-44	Seafood	-2.988	.003
		Transportation cost	-2.869	.004
		Relaxing atmosphere	-2.688	.007
		Squares	-2.688	.007
		Golf courses	-2.899	.004
		Architecture	-3.246	.001
		Hygiene and cleanliness	-5.130	<.001
1 vs. 3	18-24 vs. 45-and-over	Transportation cost	-3.741	<.001
		Night life	-3.753	<.001
		Scenery	-3.294	.001
		Ethnic attractions	-2.500	.012
		Value for money	-3.681	<.001
2 vs. 3	25-44 vs. 45-and-over	Night life	-4.332	<.001
		Value for money	-3.252	<.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p<.017

In comparisons between the 25-44 and 45-and-over groups, the results showed statistically significant differences in the attributes of night life and value for money. Residents in the age group 45-and-over (mean rank = 130.41, 130.03, respectively) had a better image of night life and value for money than did those in the 25-44 age group (mean rank = 94.36, 102.76, respectively). No statistically significant differences were found in remaining paired comparisons.

Kruskal-Wallis tests were used to determine whether there were statistically significant

differences among residents' affective images of Qingdao by age. As shown in Table 6.7, no significant differences were found among three resident groups (i.e., 18-24, 25-44, and 45-and-over) for two affective attributes: pleasant-unpleasant and relaxing-distressing. However, two attributes, arousing-sleepy and exciting-gloomy were found to be significantly different across the three age groups.

Table 6. 7 Influence of Age on Affective Images of Residents

	18-24		25-44		45-and-over		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Affective image ^a								
Arousing-sleepy	113	4.47	144	4.38	80	4.69	8.562	.014*
Exciting-gloomy	113	4.36	144	4.28	80	4.59	9.084	.011*
Pleasant-unpleasant	113	4.44	144	4.33	80	4.58	4.535	.104
Relaxing-distressing	113	4.44	144	.38	80	4.50	1.274	.529

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**p*<.05, *df*=2

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of age groups were significantly different based on mean rank (Table 6.8). With the Bonferroni adjustment, a significance level of .017 was used in the paired comparisons.

In comparisons between the 18-24 and 25-44 groups, the results showed a statistically significant difference in the attribute of arousing-sleepy. Residents in the age group 45-and-over (mean rank = 107.28) felt more aroused in Qingdao than did those in the 18-24 age group (mean rank = 89.72).

In comparisons between the 25-44 and 45-and-over groups, the results showed statistically significant differences in the attributes of arousing-sleepy and exciting-gloomy. Residents in the age group 45-and-over (mean rank = 126.47, 127.81, respectively) felt more aroused and excited in Qingdao than did those in the 25-44 age group (mean rank = 104.74, 104.00, respectively). No statistically significant differences were found in remaining paired

comparisons.

Table 6. 8 Influence of Age on Affective Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	p
1 vs. 3	18-24 vs. 45-and-over	Arousing-sleepy	-2.501	.012
2 vs. 3	25-44 vs. 45-and-over	Arousing-sleepy	-2.757	.006
		Exciting-gloomy	-2.932	.003

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p<.017

The influence of age on residents' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the three age groups varied in their images of 14 of 26 cognitive attributes. This indicates that age, to a great extent, influenced residents' cognitive images. The post-hoc Mann-Whitney tests revealed that more image differences existed between the 18-24 and 25-44 groups and between the 18-24 and 45-and-over groups than between the 25-44 and 45-and-over groups. One possible reason for the differences between the 18-24 and 25-44 groups is that young people have different interests and expectations than older people. Also, people's family commitments, employment status and financial resources differ due to age. For example, people in the 25-44 group may have more opportunities to develop their interests in activities such as golf than those who are in the 18-24 group. Other differences cannot be easily explained by a single reason.

The Kruskal-Wallis test also discovered that the three age groups differed significantly in their affective images of arousing-sleepy and exciting-gloomy. This indicates that age, to some extent, influenced residents' affective images. The post-hoc Mann-Whitney tests discovered three significant differences between the 18-24 and 45-and-over groups and between the 25-44 and 45-and-over groups with respect to the above-mentioned two attributes. The results showed that the 45-and-over group had a more positive affective image than the other two groups.

6.1.4 Influence of Occupation on Resident Images

Kruskal-Wallis tests were conducted to determine whether or not there were statistically significant differences among residents' cognitive images of Qingdao by occupation. As shown in Table 6.9, no significant differences were found among six resident groups (i.e., professionals, skilled workers, service and clerical workers, self-employed, students, and retired) for 13 out of 26 cognitive attributes, with p -values ranging from .065 to .490. However, 13 attributes were found to be significantly different across the six occupational groups. These were accommodation, airline schedules, public transport, relaxing atmosphere, football games, squares, scenery, golf courses, special events, fashion shows, architecture, value for money, and hygiene and cleanliness.

Mann-Whitney U tests were performed as post-hoc tests to determine which of the pairs of age groups were significantly different based on mean rank (Table 6.10). With the Bonferroni adjustment, a significance level of .0033 was used in the paired comparisons.

A comparison between professionals and skilled workers showed statistically significant differences in the attributes of golf courses and special events. Professionals (mean rank = 49.39, 55.10, respectively) had a better image of golf courses and special events than did skilled workers (mean rank = 31.64, 34.18, respectively).

A comparison between professionals and self-employed produced statistically significant differences in the attributes of accommodation, football games and squares. Professionals (mean rank = 62.90) had a better image of accommodation than did the self-employed (mean rank = 37.38), while the self-employed (mean rank = 65.85, 69.83, respectively) had a better image of football games and squares than did professionals (mean

rank = 43.11, 50.88, respectively).

Table 6. 9 Influence of Occupation on Cognitive Images of Residents

	Service &												Chi-Square	p
	Professionals		Skilled workers		clerical workers		Self-employed		Students		Retired			
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Cognitive image ^a														
Seafood	81	4.72	23	4.57	59	4.53	30	4.60	61	4.67	23	4.65	6.979	.222
Accommodation	81	4.14	23	3.78	59	3.90	30	3.53	61	4.02	23	4.13	20.145	.001*
Shopping	81	3.79	23	3.22	59	3.92	30	3.87	61	3.77	23	3.78	9.636	.086
Cultural attractions	81	3.67	23	3.57	59	3.68	30	3.93	61	3.52	23	3.91	4.428	.490
Highway system	81	4.28	23	3.74	59	4.31	30	4.13	61	4.13	23	4.04	10.400	.065
Traffic congestion	78	2.99	21	3.05	55	2.76	25	2.80	58	2.57	22	2.95	7.149	.210
Airline schedules	73	3.70	22	3.86	56	3.88	27	4.00	59	4.29	20	3.75	19.263	.002*
Transportation cost	78	3.85	22	3.36	59	3.81	30	3.76	61	3.93	22	3.55	9.688	.085
Public transport	81	3.91	23	3.43	58	4.05	30	4.27	60	4.17	23	3.74	17.613	.003*
Night life	73	3.88	22	3.45	57	3.61	28	3.61	58	3.79	20	3.75	6.588	.253
Relaxing atmosphere	81	3.99	23	3.70	59	4.02	30	4.50	61	4.31	23	4.17	21.554	.001*
Local people	81	4.46	23	4.00	58	4.38	30	4.30	61	4.46	23	4.48	6.355	.273
Football games	69	3.43	21	3.57	57	3.75	30	4.10	60	3.95	17	4.10	23.340	<.001**
Beaches	81	4.60	23	4.57	59	4.63	30	4.67	61	4.77	23	4.52	4.824	.438
Weather	81	4.36	23	4.13	59	4.34	30	4.40	61	4.54	23	4.26	7.344	.196
Green space	81	4.27	23	4.17	59	4.41	30	4.63	61	4.34	23	4.48	7.532	.184
Squares	81	4.23	23	4.30	59	4.22	30	4.67	61	4.49	23	4.17	15.467	.009*
Resorts	78	4.19	23	4.00	59	4.10	30	4.33	61	4.23	23	4.24	7.049	.217
Scenery	81	4.65	23	4.52	59	4.32	30	4.37	56	4.71	23	4.70	11.521	.042*
Ethnic attractions	81	4.28	23	4.09	59	4.05	30	4.37	56	4.55	23	4.35	9.960	.076
Golf course	67	4.10	22	3.41	46	3.89	23	4.26	55	4.22	19	3.95	14.650	.012*
Special events	78	4.42	22	3.86	56	4.29	30	4.27	61	4.41	21	4.53	14.585	.012
Fashion shows	70	3.80	20	3.40	58	3.64	30	4.10	56	4.09	18	3.89	20.102	.001*
Architecture	81	4.27	23	4.00	59	4.25	30	4.10	61	4.62	23	4.39	22.900	<.001**
Value for money	81	3.51	23	3.48	59	3.86	30	3.67	61	4.05	23	3.65	17.555	.004*
Hygiene and cleanliness	81	4.28	23	4.22	59	4.29	30	4.27	61	4.59	23	4.30	11.473	.043*

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$, $df = 5$

A comparison between professionals and students showed statistically significant differences in the attributes of airline schedules, football games, architecture and value for money. Students (mean rank = 80.72, 76.87, 60.66, 61.25, respectively) had a better image of

airline schedules, football games, architecture and value for money than did professionals (mean rank = 55.01, 54.68, 60.66, 61.25, respectively).

Comparing the skilled worker group to the service and clerical worker group showed a statistically significant difference in the attribute of public transport. Service and clerical workers (mean rank = 45.59) had a better image of Qingdao's public transport than did skilled workers (mean rank = 29.41).

A comparison between skilled workers and the self-employed produced statistically significant differences in the attributes of public transport, relaxing atmosphere, golf courses and fashion shows. Self-employed residents (mean rank = 32.93, 33.25, 28.48, 30.45, respectively) had a better image of public transport, relaxing atmosphere, golf courses, and fashion shows than did skilled workers (mean rank = 19.26, 18.85, 17.27, 18.08, respectively).

A comparison between skilled workers and students showed statistically significant differences in the attributes of public transport, relaxing atmosphere, golf courses, fashion shows and architecture. Students (mean rank = 47.08, 47.52, 44.00, 43.42, 47.98, respectively) had a better image of public transport, relaxing atmosphere, golf courses, fashion shows and architecture than did skilled workers (mean rank = 28.74, 29.20, 26.50, 24.73, 27.98, respectively).

A comparison between skilled workers and the retired showed a statistically significant difference in the attribute of special events. The retired (mean rank = 27.40) had a better image of special events than did skilled workers (mean rank = 16.84).

A comparison of the service and clerical worker group to the student group showed statistically significant differences in the attributes of scenery and fashion shows. Students

(mean rank = 66.17, 67.19, respectively) had a better image of scenery and fashion shows than did service and clerical workers (mean rank = 50.25, 48.15, respectively).

A comparison between the self-employed and students produced a statistically significant difference in the attribute of accommodation. Students (mean rank = 52.20) had a better image of accommodation than did self-employed residents (mean rank = 33.38).

Table 6. 10 Influence of Occupation on Cognitive Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	p
1 vs. 2	Professionals vs. skilled workers	Golf course	-2.949	.003
		Special events	-3.285	.001
1 vs. 4	Professionals vs. self-employed	Accommodation	-4.053	<.001
		Football games	-3.905	<.001
		Squares	-3.050	.002
1 vs. 5	Professionals vs. students	Airline schedules	-4.066	<.001
		Football games	-3.618	<.001
		Architecture	-4.056	<.001
		Value for money	-3.614	<.001
2 vs. 3	Skilled workers vs. service and clerical workers	Public transport	-2.945	.003
2 vs. 4	Skilled workers vs. self-employed	Public transport	-3.366	.001
		Relaxing atmosphere	-3.596	<.001
		Golf courses	-3.012	.003
		Fashion shows	-3.188	.001
2 vs. 5	Skilled workers vs. students	Public transport	-3.262	.001
		Relaxing atmosphere	-3.291	.001
		Golf courses	-3.266	.001
		Fashion shows	-3.536	<.001
		Architecture	-3.851	<.001
2 vs. 6	Skilled workers vs. retired	Special events	-2.990	.003
3 vs. 5	Service and clerical workers vs. students	Scenery	-3.070	.002
		Fashion shows	-3.300	.001
4 vs. 5	Self-employed vs. students	Accommodation	-3.719	<.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .0033$

Kruskal-Wallis tests were used to determine whether or not there were statistically significant differences among residents' affective images of Qingdao by occupation. As shown in Table 6.11, no significant differences were found among six occupational groups for two affective attributes: arousing-sleepy and exciting-gloomy. However, two attributes,

pleasant-unpleasant and relaxing-distressing, were found to be significantly different across the six occupational groups.

Table 6. 11 Influence of Occupation on Affective Images of Residents

	Professionals		Skilled workers		Service & clerical workers		Self-employed		Students		Retired		Chi-Square	p
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a														
Arousing-sleepy	81	4.60	23	4.43	59	4.31	30	4.43	61	4.48	23	4.61	6319	.276
Exciting-gloomy	81	4.48	23	4.26	59	4.29	30	4.47	61	4.38	23	4.43	2892	.717
Pleasant-unpleasant	81	4.54	23	4.04	59	4.36	30	4.53	61	4.39	23	4.35	12.123	.033*
Relaxing-distressing	81	4.59	23	4.04	59	4.24	30	4.53	61	4.49	23	4.43	13.575	.019*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

* $p < .05$, $df = 5$

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of occupational groups was significantly different based on mean rank (Table 6.12). With the Bonferroni adjustment, a significance level of .0033 was used in the paired comparisons.

A comparison between professionals and skilled workers showed statistically significant differences in the attributes of pleasant-unpleasant and relaxing-distressing. Professionals (mean rank = 57.17, 57.05, respectively) felt more pleasant and relaxed in Qingdao than did skilled workers (mean rank = 36.04, 36.48, respectively).

Table 6. 12 Influence of Occupation on Affective Images of Residents: Paired Comparison

Group	Comparison	Affective image ^a	Z	p
1 vs. 2	Professionals vs. skilled workers	Pleasant-unpleasant	-3.336	.001
		Relaxing-distressing	-3.263	.001

Notes: Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing. $p < .0033$

The influence of occupation on residents' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the six occupational groups varied in their images of 13 out of 26 cognitive image attributes. This indicates that occupation, to some extent, influenced residents' cognitive images. The post-hoc Mann-Whitney tests identified a number of differences in the paired comparisons for the 13 attributes. Among the differences identified,

professionals were found to have more positive images with respect to golf courses than skilled workers. One possible reason is that the two groups have different employment statuses and different financial resources. Professionals may have more opportunities to develop their interests in golf than do skilled workers.

The Kruskal-Wallis tests also uncovered that residents differed in their pleasant-unpleasant and relaxing-distressing affective images across the six occupational groups. The post-hoc Mann-Whitney tests found differences between professionals and skilled workers for these two attributes. Professionals felt more pleasant and relaxed in Qingdao than did skilled workers.

6.1.5 Influence of Length of Residence on Resident Images

Kruskal-Wallis tests were used to determine whether or not there were statistically significant differences among residents' cognitive images of Qingdao by length of residence. As shown in Table 6.13, no significant differences were found among five resident groups (i.e., 1-9 years, 10-19 years, 20-29 years, 30-39 years, and 40 years or more) for 14 out of 26 cognitive attributes, with *p*-values ranging from .057 to .511. However, 12 attributes, i.e. seafood, transportation cost, public transport, local people, football games, green space, squares, ethnic attractions, special events, fashion shows, architecture and value for money, were found to be significantly different across the five resident groups.

Mann-Whitney *U* tests were performed as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank, with regard to length of residence (Table 6.14). With the Bonferroni adjustment, a significance level of .005 was used

in the paired comparisons. A comparison between residents who had lived in Qingdao for 1-9 years and 10-19 years showed a statistically significant difference in the attribute of special events. Residents who had lived in Qingdao for 1-9 years (mean rank = 82.80) had a better image of special events than did their counterparts (mean rank = 64.05).

Table 6. 13 Influence of Length of residence on Cognitive Images of Residents

	1-9 years		10-19 years		20 to 29 years		30-39 years		40 years or more		Chi-Square	p
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Cognitive image ^a												
Seafood	82	4.50	70	4.64	86	4.55	45	4.87	18	4.72	13.110	.011*
Accommodation	82	3.99	70	3.90	86	3.84	45	4.02	18	4.06	3.289	.511
Shopping	82	3.74	70	3.91	86	3.71	45	3.98	18	4.28	7.283	.122
Cultural attractions	82	3.87	70	4.03	86	3.53	45	3.82	18	3.56	7.846	.097
Highway system	82	4.09	70	4.29	86	4.15	45	4.24	18	4.50	4.889	.299
Traffic congestion	71	2.87	68	3.10	83	2.81	42	3.00	18	2.50	6.881	.142
Airline schedules	71	3.84	65	4.05	80	3.99	45	4.09	18	3.56	7.159	.128
Transportation cost	77	3.78	70	3.64	86	3.50	45	4.24	18	4.06	20.048	<.001*
Public transport	82	3.88	67	3.87	85	3.84	45	4.47	18	4.67	28.863	<.001*
Night life	76	3.61	65	3.78	78	3.55	44	3.75	18	4.11	6.996	.136
Relaxing atmosphere	82	4.13	70	3.96	86	4.02	45	4.16	18	4.11	4.297	.367
Local people	82	4.27	70	4.36	84	4.29	43	4.56	18	5.00	19.662	.001*
Football games	72	3.75	64	3.73	81	3.53	45	4.07	18	4.00	16.708	.002*
Beaches	82	4.72	70	4.74	86	4.56	45	4.62	18	4.33	7.353	.118
Weather	82	4.29	70	4.47	86	4.22	45	4.51	18	4.61	8.494	.075
Green space	82	4.38	70	4.50	86	4.15	45	4.44	18	4.50	13.750	.008*
Squares	82	4.30	70	4.29	86	4.12	45	4.51	18	4.50	10.365	.035*
Resorts	82	4.13	67	4.31	84	4.00	45	4.40	18	4.28	9.165	.057
Scenery	79	4.43	70	4.54	86	4.34	45	4.71	18	4.78	9.044	.060
Ethnic attractions	79	4.16	70	4.17	86	4.06	45	4.58	18	4.72	18.150	.001*
Golf course	71	4.03	58	4.09	68	3.91	38	4.05	14	4.14	3.325	.505
Special events	78	4.44	69	4.16	78	4.17	45	4.42	18	4.50	15.199	.004*
Fashion shows	70	4.04	65	3.78	80	3.55	43	3.77	18	3.89	16.550	.002*
Architecture	82	4.33	70	4.39	86	4.12	45	4.49	18	4.28	9.731	.045*
Value for money	82	3.74	70	3.64	86	3.55	45	3.93	18	4.11	10.711	.030*
Hygiene and cleanliness	82	4.23	70	4.34	86	4.24	45	4.40	18	4.06	3.496	.479

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$, $df=4$

A comparison between residents who had lived in Qingdao for 1-9 years and 20-29 years produced statistically significant differences in the attributes of special events and fashion shows. Residents who had lived in Qingdao for 1-9 years (mean rank = 88.86, 89.32, respectively) had a better image of special events and fashion shows than did their counterparts (mean rank = 68.14, 63.41, respectively).

A comparison between residents who had lived in Qingdao for 1-9 years and 30-39 years showed a statistically significant difference in the attribute of public transport. Residents who had lived in Qingdao for 30-39 years (mean rank = 78.01) had a better image of public transport than did their counterparts (mean rank = 56.31).

A comparison between residents who had lived in Qingdao for 1-9 years and 40-49 years showed statistically significant differences in the attributes of public transport and local people. Residents who had lived in Qingdao for 40-49 years (mean rank = 69.89, 71.75, respectively) had a better image of public transport and local people than did their counterparts (mean rank = 46.24, 45.89, respectively).

A comparison between residents who had lived in Qingdao for 10-19 years and 20-29 years produced a statistically significant difference in the attribute of green space. Residents who had lived in Qingdao for 10-19 years (mean rank = 90.84) had a better image of green space than did their counterparts (mean rank = 68.46).

A comparison between residents who had lived in Qingdao for 10-19 years and 30-39 years showed statistically significant differences in the attributes of transportation cost and public transport. Residents who had lived in Qingdao for 30-39 years (mean rank = 69.62, 69.52, respectively) had a better image of transportation cost and public transport than did their

counterparts (mean rank = 50.53, 47.75, respectively).

A comparison between residents who had lived in Qingdao for 10-19 years and those for 40-49 years showed statistically significant differences in the attributes of public transport and local people. Residents who had lived in Qingdao for 40-49 years (mean rank = 60.69, 60.65, respectively) had a better image of public transport and local people than did their counterparts (mean rank = 38.25, 40.49, respectively).

A comparison between residents who had lived in Qingdao for 20-29 years and 30-39 years showed statistically significant differences in the attributes of seafood, transportation cost, public transport, football games, squares and ethnic attractions. Residents who had lived in Qingdao for 30-39 years (mean rank = 79.77, 83.93, 81.99, 78.97, 78.49, 81.49, respectively) had a better image of these six attributes than did their counterparts (mean rank = 58.50, 56.62, 56.77, 59.1, 59.47, 57.90, respectively).

Table 6. 14 Influence of Length of Residence on Cognitive Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	P
1 vs. 2	1-9 years vs. 10-19 years	Special events	-2.931	.003
1 vs. 3	1-9 years vs. 20-29 years	Special events	-3.139	.002
		Fashion shows	-3.902	<.001
1 vs. 4	1-9 years vs. 30-39 years	Public transport	-3.378	.001
1 vs. 5	1-9 years vs. 40-49 years	Public transport	-3.308	.001
		Local people	-3.847	<.001
2 vs. 3	10-19 years vs. 20-29 years	Green space	-3.358	.001
2 vs. 4	10-19 years vs. 30-39 years	Transportation cost	-3.183	.001
		Public transport	-3.714	<.001
2 vs. 5	10-19 years vs. 40-49 years	Public transport	-3.644	<.001
		Local people	-3.506	<.001
3 vs. 4	20-29 years vs. 30-39 years	Seafood	-3.650	<.001
		Transportation cost	-4.096	<.001
		Public transport	-3.843	<.001
		Football games	-3.838	<.001
		Squares	-2.975	.003
		Ethnic attractions	-3.660	<.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .005$

Kruskal-Wallis tests were conducted to determine whether there were statistically significant differences among residents' affective images of Qingdao by length of residence. As shown in Table 6.15, no significant differences were found among five resident groups (i.e., 1-9 years, 10-19 years, 20-29 years, 30-39 years, and 40 years or more) for 3 affective attributes: arousing-sleepy, exciting-gloomy and pleasant-unpleasant. However, one attribute, relaxing-distressing, was found to be significantly different across the five resident groups.

Table 6. 15 Influence of Length of Residence on Affective Images of Residents

	1 to 9 years		10-19 years		20-29 years		30-39 years		40 years or more		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a												
Arousing-sleepy	82	4.34	70	4.59	86	4.42	45	4.47	18	4.61	6.201	.185
Exciting-gloomy	82	4.24	70	4.49	86	4.36	45	4.44	18	4.28	5.937	.204
Pleasant-unpleasant	82	4.26	70	4.53	86	4.45	45	4.49	18	4.28	8.821	.066
Relaxing-distressing	82	4.32	70	4.57	86	4.41	45	4.44	18	4.06	11.347	.023*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

**p*<.05, df=4

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank of length of residence. With the Bonferroni adjustment, a significance level of .005 was used in the paired comparisons. A statistically significant difference was found between residents who had lived in Qingdao for 10-19 and 40-49 years for the attribute of relaxing-distressing. Residents who had lived in Qingdao for 10-19 years (mean rank = 48.40) felt more relaxed than did their counterparts (mean rank = 29.33).

The influence of length of residence on residents' cognitive and affective images is summarized here. The Kruskal-Wallis tests showed that the five resident groups varied in their images of 12 out of 26 cognitive image attributes. This indicates that length of residence, to some extent, influenced residents' cognitive images. The post-hoc Mann-Whitney tests

identified a number of differences in the paired comparisons for the 12 attributes. Some of these differences may be caused by the participants' familiarity with the city, their attachment to Qingdao, and their social relationships and affiliation with their neighbourhood. For example, residents who had lived in Qingdao for 1-9 years had a more positive image of special events and fashion shows than did those who had lived there for 20-29 years. This may be due to the fact that the former group was newer to the city than the latter group and they may have felt that the special events and fashions shows held in Qingdao are more novel than did people who had lived there longer.

The Kruskal-Wallis tests also showed that residents differed in their affective images of relaxing-distressing by length of residence. This indicates that length of residence, to some extent, influenced residents' affective images. The post-hoc Mann-Whitney tests found one difference between those who had lived in Qingdao for 10-19 years and those who had lived there for 40-49 years. Residents who had lived in Qingdao for 10-19 years felt more relaxed than did their counterparts.

6.2 Influence of Information Sources on Resident Images

Kruskal-Wallis tests were conducted to determine whether or not there were statistically significant differences among residents' cognitive images of Qingdao according to most important information source used. As shown in Table 6.16, no significant differences were found among eight resident groups (i.e., tourist brochures; mass-media advertising; travel agents; the Internet; word-of-mouth; guidebooks; news; magazines, documentary, or TV) for 9 out of 26 cognitive attributes, with *p*-values ranging from .079 to .490. However, 17 attributes, e.g., seafood and shopping, were found to be significantly different across the eight resident

groups.

Table 6. 16 Influence of Most Important Source Used on Cognitive Images of Residents

	Tourist		Mass-media				Word-of				Magazines,				Chi-Square	<i>p</i>		
	<u>brochures</u>		<u>advertising</u>		<u>Travel agents</u>		<u>Internet</u>		<u>-mouth</u>		<u>Guidebooks</u>		<u>News</u>				<u>documentary or TV</u>	
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean			n	Mean
Cognitive image ^a																		
Seafood	38	439	48	481	19	479	57	461	62	450	13	423	48	477	19	468	17601	0.04*
Accommodation	38	408	48	419	19	405	57	386	62	382	13	349	48	400	19	389	10688	.152
Shopping	38	355	48	356	19	368	57	382	62	410	13	323	48	390	19	416	17386	0.05*
Cultural attractions	38	382	48	346	19	347	57	384	62	374	13	408	48	375	19	347	7684	.361
Highway system	38	374	48	421	19	416	57	430	62	426	13	400	48	408	19	458	17357	0.05*
Traffic congestion	38	308	47	285	18	338	51	282	57	274	13	308	43	279	15	280	6735	.457
Airline schedules	38	368	47	394	19	405	51	406	51	384	13	346	46	402	18	422	14519	0.03*
Transportation cost	38	376	48	385	19	379	57	385	57	376	13	285	48	385	19	389	17351	0.04*
Public transport	38	416	47	411	19	400	55	396	61	362	13	354	48	425	19	411	16604	0.00*
Night life	38	376	45	373	19	363	53	385	57	346	10	340	45	376	18	344	8312	.316
Relaxing atmosphere	38	384	48	390	19	416	57	444	62	376	13	385	48	427	19	421	2890	<0.01**
Local people	34	429	48	440	19	468	57	437	62	424	13	446	48	405	19	444	9185	.210
Football games	36	397	45	360	19	347	50	404	61	331	13	363	46	398	19	400	3481	<0.01**
Beaches	38	447	48	473	19	463	57	468	62	456	13	462	48	440	19	484	6437	.410
Weather	38	429	48	433	19	437	57	444	62	408	13	477	48	452	19	458	2336	0.01*
Green space	38	434	48	425	19	447	57	451	62	405	13	469	48	435	19	479	2786	<0.01**
Squares	38	418	48	419	19	421	57	439	62	406	13	454	48	444	19	463	17382	0.03*
Resorts	38	395	48	427	19	416	54	435	62	390	13	415	47	421	19	432	14882	0.08*
Scenery	33	409	48	466	19	484	57	451	62	448	13	485	48	467	19	384	1640	0.02*
Ethnic attractions	33	382	48	394	19	411	57	449	62	415	13	392	48	454	19	458	3067	<0.01**
Golf course	38	358	39	392	18	378	47	432	45	404	13	388	44	407	14	368	14105	0.00*
Special events	38	426	48	423	19	432	54	431	59	408	13	463	48	444	19	447	7875	.344
Fashion shows	34	388	44	375	19	363	52	396	57	367	13	425	47	387	19	358	11115	.134
Architecture	38	437	48	431	19	411	57	447	62	390	13	431	48	448	19	479	3008	<0.01**
Value for money	38	374	48	375	19	405	57	372	62	353	13	346	48	400	19	358	12741	.079
Hygiene and cleanliness	38	468	48	427	19	432	57	446	62	402	13	415	48	438	19	453	2635	<0.01**

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p*<.05, *p*<.001, *df*=7

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank, with regard to most important information source used (Table 6.17). With the Bonferroni adjustment, a

significance level of .0018 was used in the paired comparisons.

A statistically significant difference was found in the attribute of hygiene and cleanliness between residents who used tourist brochures and those who used magazines, documentaries or TV as the most important source for constructing their images of Qingdao. Those who used tourist brochures as the most important source (mean rank = 52.57) had a better image of hygiene and cleanliness than did their counterparts (mean rank = 36.32).

A statistically significant difference was found in the attribute of highway system between residents who used tourist brochures and those who used the Internet as the most important source for constructing their images of Qingdao. The Internet group (mean rank = 54.99) had a better image of the highway system than did their counterparts (mean rank = 37.51).

Statistically significant differences were found in the attributes of football games and hygiene and cleanliness between residents who used tourist brochures and those who used word-of-mouth as the most important source for constructing their images of Qingdao. Those who used tourist brochures as the most important source (mean rank = 61.44, 63.75, respectively) had a better image of football games and hygiene and cleanliness than did their counterparts (mean rank = 41.66, 42.38, respectively).

A statistically significant difference was detected in the attribute of hygiene and cleanliness between residents who used tourist brochures and those who used guidebooks as the most important source for constructing their images of Qingdao. Those who used tourist brochures as the most important source (mean rank = 29.58) had a better image of hygiene and cleanliness than did their counterparts (mean rank = 15.54).

A statistically significant difference was found in the attribute of highway system between residents who used tourist brochures and those who used magazines, documentaries or TV as the most important source for constructing their images of Qingdao. Those who used magazines, documentaries, or TV as the most important source (mean rank = 39.03) had a better image of the highway system than did their counterparts (mean rank = 23.99).

Statistically significant differences were found in the attributes of relaxing atmosphere and ethnic attractions between residents who used mass-media advertising and those who used the Internet as the most important source for constructing their images of Qingdao. The Internet group (mean rank = 63.39, 63.66, respectively) had a better image of relaxing atmosphere and ethnic attractions than did their counterparts (mean rank = 40.67, 40.34, respectively).

A statistically significant difference was found in the attribute of shopping between residents who used mass-media advertising and those who used word-of-mouth as the most important source for constructing their images of Qingdao. The word-of-mouth group (mean rank = 63.41) had a better image of the highway system than did their counterparts (mean rank = 45.28).

A statistically significant difference was found in the attribute of transportation cost between residents who used mass-media advertising and those who used guidebooks as the most important source for constructing their images of Qingdao. Those who used mass-media advertising as the most important source (mean rank = 34.82) had a better image of transportation cost than did their counterparts (mean rank = 16.88).

A statistically significant difference was found in the attribute of ethnic attractions between residents who used mass-media advertising and those who used news as the most

important source for constructing their images of Qingdao. Those who used news as the most important source (mean rank = 59.66) had a better image of ethnic attractions than did their counterparts (mean rank = 37.34).

A statistically significant difference was found in the attribute of ethnic attractions between residents who used mass-media advertising and those who used magazines, documentaries or TV as the most important source for constructing their images of Qingdao. Those who used magazines, documentaries or TV as the most important source (mean rank = 46.47) had a better image of ethnic attractions than did their counterparts (mean rank = 29.06).

Statistically significant differences were found in the attributes of relaxing atmosphere, football games, green space and architecture between residents who used the Internet and those who used word-of-mouth as the most important source for constructing their images of Qingdao. The Internet group (mean rank = 73.36, 70.10, 71.75, 73.21, respectively) had a better image of ethnic attractions than did those who used word-of-mouth (mean rank = 42.72, 44.44, 49.75, 47.85, respectively).

A statistically significant difference was found in the attribute of transportation cost between residents who used the Internet and those who used guidebooks as the most important source for constructing their images of Qingdao. The Internet group (mean rank = 39.11) had a better image of transportation cost than did those who used guidebooks (mean rank = 19.69).

A statistically significant difference was found in the attribute of weather between residents who used word-of-mouth and those who used guidebooks as the most important source for constructing their images of Qingdao. The guidebook group (mean rank = 54.69) had a better image of weather than did those who used word-of-mouth (mean rank = 34.50).

Table 6. 17 Influence of Most Important Source Used on Cognitive Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	p
1 vs. 2	Tourist brochures vs. Magazines, documentary, or TV	Hygiene and cleanliness	-3.386	.001
1 vs. 4	Tourist brochures vs. the Internet	Highway system	-3.218	.001
1 vs. 5	Tourist brochures vs. word-of-mouth	Football games	-3.639	<.001
		Hygiene and cleanliness	-3.958	<.001
1 vs. 6	Tourist brochures vs. guidebooks	Hygiene and cleanliness	-3.484	<.001
1 vs. 8	Tourist brochures vs. magazines, documentary, or TV	Highway system	-3.447	.001
2 vs. 4	Mass-media advertising vs. the Internet	Relaxing atmosphere	-4.152	<.001
		Ethnic attractions	-4.251	<.001
2 vs. 5	Mass-media advertising vs. word-of-mouth	Shopping	-3.274	.001
2 vs.6	Mass-media advertising vs. guidebooks	Transportation cost	-3.408	.001
2 vs. 7	Mass-media advertising vs. news	Ethnic attractions	-4.270	<.001
2 vs. 8	Mass-media advertising vs. magazines, documentary, or TV	Ethnic attractions	-3.576	<.001
4 vs. 5	The Internet vs. word-of-mouth	Relaxing atmosphere	-4.341	<.001
		Football games	-4.486	<.001
		Green space	-3.666	<.001
		Architecture	-4.291	<.001
4 vs.6	The Internet vs. guidebooks	Transportation cost	-3.233	.001
5 vs. 6	Word-of-mouth vs. guidebooks	Weather	-3.260	.001
5 vs. 7	Word-of-mouth vs. news	Public transport	-3.483	<.001
		Football games	-4.084	<.001
		Weather	-3.459	.001
		Architecture	-4.103	<.001
5 vs. 8	Word-of-mouth vs. magazines, documentary, or TV	Football games	-3.401	.001
		Green space	-4.110	<.001
		Architecture	-4.382	<.001
6 vs. 7	Guidebooks vs. news	Transportation cost	-3.391	.001

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good. $p < .0018$

Statistically significant differences were found in the attributes of public transport, football games, weather and architecture between residents who used word-of-mouth and those who used news as the most important source for constructing their images of Qingdao. Those who used news as the most important source (mean rank = 66.31, 67.07, 66.56, 68.57, respectively) had a better image of public transport, football games and weather than did those who used word-of-mouth (mean rank = 46.10, 44.15, 46.94, 45.31, respectively).

Statistically significant differences were found in the attributes of football games, green

space and architecture between residents who used word-of-mouth and those who used magazines, documentaries or TV as the most important source for constructing their images of Qingdao. Those who used magazines, documentaries or TV as the most important source (mean rank = 55.08, 58.92, 60.42, respectively) had a better image of football games, green space and architecture than did those who used word-of-mouth (mean rank = 35.96, 35.51, 35.05, respectively).

A statistically significant difference was found in the attribute of transportation cost between residents who used guidebooks and those who used news as the most important source for constructing their images of Qingdao. Those who used news as the most important source (mean rank = 34.79) had a better image of transportation cost than did those who used guidebooks (mean rank = 17.00).

Table 6. 18 Influence of Most Important Source Used on Affective Images of Residents

	Tourist brochures		Mass-media advertising		Travel agents		Internet		Word-of-mouth		Guidebooks		News		Magazines, documentary, or TV		Chi-Square	p
	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean		
Affective image ^a																		
Arousing-sleepy	38	4.63	48	4.69	19	4.42	57	4.35	62	4.53	13	4.31	48	4.27	19	4.37	156.9	.00*
Exciting-gloomy	38	4.42	48	4.65	19	4.25	57	4.19	62	4.50	13	3.92	48	4.23	19	4.42	213.11	.00*
Pleasant-unpleasant	38	4.61	48	4.69	19	3.89	57	4.32	62	4.40	13	4.23	48	4.21	19	4.58	3.015	<.001**
Relaxing-distressing	38	4.25	48	4.58	19	4.15	57	4.46	62	4.42	13	4.69	48	4.27	19	4.58	144.8	.00*

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

* $p < .05$, ** $p < .001$, $df = 7$

Kruskal-Wallis tests were used to determine whether there were statistically significant differences among residents' affective images of Qingdao according to most important information source used. As shown in Table 6.18, significant differences were found among eight resident groups (i.e., tourist brochures; mass-media advertising; travel agents; the Internet; word-of-mouth; guidebooks; news; magazines, documentary, or TV) for all 4 affective

attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant, and relaxing-distressing.

Mann-Whitney *U* tests were performed as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank, with regard to most important source used (Table 6.19). With the Bonferroni adjustment, a significance level of .0018 was used in the paired comparisons. A comparison between residents who used tourist brochures and those who used travel agents as the most important source for constructing their images of Qingdao showed a statistically significant difference in the attribute of pleasant-unpleasant. The tourist brochure group (mean rank = 34.24) felt more pleasant in Qingdao than did the travel agent group (mean rank = 18.53).

A comparison between residents who used mass-media advertising and those who used travel agents as the most important source for constructing their images of Qingdao showed a statistically significant difference in the attribute of pleasant-unpleasant. The mass-media advertising group (mean rank = 39.79) felt more pleasant than did their counterparts (mean rank = 19.37).

A comparison between residents who used mass-media advertising and those who used the Internet as the most important source for constructing their images of Qingdao produced statistically significant differences in the attributes of exciting-gloomy and pleasant-unpleasant. The mass-media advertising group (mean rank = 63.15, 62.41, respectively) felt more excited and pleasant in Qingdao than did their counterparts (mean rank = 44.46, 45.08, respectively).

A comparison between residents who used mass-media advertising and those who used guidebooks as the most important source for constructing their images of Qingdao showed a statistically significant difference in the attribute of exciting-gloomy. The mass-media

advertising group (mean rank = 34.41) felt more excited in Qingdao than did their counterparts (mean rank = 18.42).

Table 6. 19 Influence of Most Important Source Used on Affective Images of Residents: Paired Comparison

Group	Comparison	Affective image ^a	Z	p
1 vs. 3	Tourist brochures vs. travel agents	Pleasant-unpleasant	-3.744	<.001
2 vs. 3	Mass-media advertising vs. travel agents	Pleasant-unpleasant	-4.364	<.001
2 vs. 4	Mass-media advertising vs. the Internet	Exciting-gloomy	-3.510	<.001
		Pleasant-unpleasant	-3.300	.001
2 vs.6	Mass-media advertising vs. guidebooks	Exciting-gloomy	-3.275	.001
2 vs. 7	Mass-media advertising vs. news	Pleasant-unpleasant	-3.455	.001

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

p<.0018

A comparison between residents who used mass-media advertising and those who used news as the most important source for constructing their images of Qingdao showed a statistically significant difference in the attribute of pleasant-unpleasant. The mass-media advertising group (mean rank = 57.22) felt more excited in Qingdao than did their counterparts (mean rank = 39.78).

Kruskal-Wallis tests were performed to determine whether or not there were statistically significant differences among residents' cognitive images of Qingdao according to number of sources used. As shown in Table 6.20, no significant differences were found among three resident groups (i.e., 1-3 sources, 4-6 sources, 7-10 sources) for 14 out of 26 cognitive attributes, with *p*-values ranging from .138 to .899. However, 12 attributes, e.g., public transport and night life, were found to be significantly different across the three resident groups.

Table 6. 20 Influence of Number of Sources Used on Cognitive Images of Residents

	1-3		4-6		7-10		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Cognitive image ^a								
Seafood	127	4.61	158	4.63	22	4.68	.212	.899
Accommodation	127	3.96	158	4.02	22	3.73	3.557	.169
Shopping	127	3.84	158	3.78	22	4.14	3.291	.193
Cultural attractions	127	3.76	158	3.84	22	4.00	.622	.733
Highway system	127	4.19	158	4.12	22	4.36	1.354	.508
Traffic congestion	118	2.78	145	2.95	22	3.14	3.491	.175
Airline schedules	117	3.97	152	3.97	20	3.70	2.163	.339
Transportation cost	127	3.75	154	3.90	22	3.50	3.965	.138
Public transport	127	3.93	154	4.16	22	3.55	12.352	.002*
Night life	118	3.92	149	3.56	22	3.64	8.439	.015*
Relaxing atmosphere	127	4.32	158	3.97	22	3.68	20.735	<.001**
Local people	127	4.35	154	4.45	22	4.27	3.940	.139
Football games	111	3.95	153	3.75	22	3.41	10.113	.006*
Beaches	127	4.69	158	4.68	22	4.45	3.614	.164
Weather	127	4.54	158	4.29	22	4.27	9.501	.009*
Green space	127	4.48	158	4.33	22	4.27	4.784	.091
Squares	127	4.48	158	4.18	22	4.32	10.979	.004*
Resorts	122	4.34	158	4.17	22	3.95	6.999	.030*
Scenery	127	4.49	154	4.62	22	4.36	1.669	.434
Ethnic attractions	127	4.24	154	4.25	22	4.32	2.001	.368
Golf course	95	4.02	145	4.09	16	3.75	3.443	.179
Special events	122	4.41	150	4.28	22	4.00	9.128	.010*
Fashion shows	108	4.02	150	3.75	22	3.41	13.282	.001*
Architecture	127	4.50	158	4.30	22	3.82	18.623	<.001**
Value for money	127	4.50	158	4.30	22	3.82	8.085	.018*
Hygiene and cleanliness	127	3.80	158	3.81	22	3.23	19.002	<.001**

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

**p*<.05, df=2

Mann-Whitney *U* tests were performed as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank, with regard to number of sources used (Table 6.21). With the Bonferroni adjustment, a significance level of .017 was used in the paired comparisons. A comparison between residents who used 1-3 sources and those who used 4-6 sources for constructing their images of Qingdao showed statistically significant differences in the attributes of nightlife, relaxing atmosphere, weather, squares,

fashion shows, architecture and hygiene and cleanliness. Residents who used 1-3 sources (mean rank = 148.38, 161.23, 157.42, 159.29, 143.68, 157.04, 157.39, respectively) had a better image of nightlife, relaxing atmosphere, weather, squares, fashion shows, architecture, and hygiene and cleanliness than those who used 4-6 sources (mean rank = 122.61, 128.34, 131.41, 139.91, 119.29, 131.72, 131.43, respectively).

Table 6. 21 Influence of Number of Sources Used on Cognitive Images of Residents: Paired Comparison

Group	Comparison	Cognitive image ^a	Z	P
1 vs. 2	1-3 vs. 4-6	Nightlife	-2.842	.004
		Relaxing atmosphere	-3.594	<.001
		Weather	-2.940	.003
		Squares	-3.263	.001
		Fashion shows	-2.772	.006
		Architecture	-2.874	.004
		Hygiene and cleanliness	-2.937	.003
1 vs. 3	1-3 vs. 7-10	Relaxing atmosphere	-3.716	<.001
		Football games	-2.951	.003
		Special events	-2.573	.010
		Fashion shows	-3.034	.002
		Architecture	-3.793	<.001
		Value for money	-2.617	.009
		Hygiene and cleanliness	-4.103	<.001
2 vs. 3	4-6 vs. 7-10	Public transport	-3.532	<.001
		Value for money	-2.841	.005

Notes: ^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

p<.017

A comparison between residents who used 1-3 sources and those who used 7-10 sources for constructing their images of Qingdao produced statistically significant differences in the attributes of relaxing atmosphere, football games, special events, fashion shows, architecture, value for money and hygiene and cleanliness. Residents who used 1-3 sources (mean rank = 80.07, 71.13, 75.94, 69.76, 79.98, 78.68, 80.36, respectively) had a better image of relaxing atmosphere, football games, special events, fashion shows, architecture, value for money, and hygiene and cleanliness than did those who used 7-10 sources (mean rank = 45.73, 46.18, 56.41,

44.59, 46.23, 53.77, 44.05, respectively).

A comparison between residents who used 4-6 sources and those who used 7-10 sources for constructing their images of Qingdao produced statistically significant differences in the attributes of public transport and value for money. Residents who used 4-6 sources (mean rank = 93.31, 94.38, respectively) had a better image of public transport and value for money than did those who used 7-10 sources (mean rank = 54.82, 62.61, respectively).

Kruskal-Wallis tests were performed to determine whether there were statistically significant differences among residents' affective images of Qingdao according to number of information sources used. As shown in Table 6.22, no significant differences were found among the three resident groups (i.e., 1-3 sources, 4-6 sources, 7-10 sources) for 3 out of 4 affective attributes: exciting-gloomy, pleasant-unpleasant and relaxing-distressing. However, one attribute, arousing-sleepy, was found to be significantly different across the three resident groups.

Table 6. 22 Influence of Number of Sources Used on Affective Images of Residents

	1-3		4-6		7-10		Chi-Square	<i>p</i>
	n	Mean	n	Mean	n	Mean		
Affective image ^a								
Arousing-sleepy	127	4.37	158	4.55	22	4.59	6.349	.042*
Exciting-gloomy	127	4.32	158	4.42	22	4.50	2.168	.338
Pleasant-unpleasant	127	4.35	158	4.49	22	4.32	3.350	.187
Relaxing-distressing	127	4.34	158	4.44	22	4.55	.685	.710

Notes: ^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

df=2, *p*<.05

Mann-Whitney *U* tests were conducted as post-hoc tests to determine which of the pairs of resident groups were significantly different based on mean rank, with regard to number of sources used. With the Bonferroni adjustment, a significance level of .017 was used in the paired comparisons. A comparison between residents who used 1-3 sources and those who

used 4-6 sources for constructing their images of Qingdao showed a significant difference in the attribute of arousing-sleepy. Those who used 4-6 sources (mean rank = 152.42) felt more aroused in Qingdao than did those who used 1-3 sources (mean rank = 131.28).

The influence of information sources on residents' cognitive and affective images is summarized here. For the most important source used, the Kruskal-Wallis test showed that the eight resident groups varied in their images of 17 of 26 cognitive image attributes. This indicates that the most important source used, to a great extent, influenced residents' cognitive images. A number of significant differences were found in these attributes by the post-hoc Mann-Whitney *U* tests.

The Kruskal-Wallis tests also showed that the eight resident groups varied in their images of all four affective attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing. A number of significant differences were found in these four attributes by post-hoc Mann-Whitney *U* tests.

For the number of sources used, the Kruskal-Wallis tests showed that the eight resident groups varied in their images of 12 of 26 cognitive attributes: public transport, night life, relaxing atmosphere, football games, weather, squares, resorts, special events, fashion shows, architecture, value for money, and hygiene and cleanliness. This indicates that the number of sources used, to some extent, influenced residents' cognitive images. A number of differences were found in these 12 attributes in the paired comparisons by the Mann-Whitney *U* tests. The results showed that residents who used fewer sources had more positive cognitive images than those who used more sources. One possible reason is that people who are less knowledgeable about a place are more likely to develop an exaggerated stereotypical image of it (Stern &

Krakover, 1993). When they have more knowledge about the place, their images will be less extreme and fine-tuned.

The Kruskal-Wallis tests discovered that residents differed in their affective images of arousing-sleepy across the three resident groups. This indicates that the number of sources used, to some extent, influenced residents' affective images. The post-hoc Mann-Whitney tests identified one difference between residents who used 1-3 sources and those who used 4-6 sources for the attribute of arousing-sleepy. Those who used 4-6 sources felt more aroused in Qingdao than did those who used 1-3 sources.

6.3 Influence of Place Attachment on Resident Images

Spearman Rank Correlations were calculated to test for potential correlations between residents' images of Qingdao (4 affective and 26 cognitive image attributes) and place attachment. The relationships between 5 attachment items and 30 image attributes were computed one by one (Table 6.23). It was found that attachment item 1 (I feel that Qingdao is a part of myself, and I am a part of it) was significantly and positively correlated with all 4 affective attributes: arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing. This item was also significantly and positively correlated with 22 cognitive image attributes, e.g., seafood and shopping. Attachment item 2 (I have many relatives and friends in Qingdao) was found to be positively correlated with 3 affective attributes, i.e., exciting-gloomy, pleasant-unpleasant and relaxing-distressing. This item was also significantly positively correlated with 14 cognitive attributes, e.g., shopping and cultural attractions. Attachment item 3 (I will miss Qingdao if I leave the city) was positively correlated with all 4 affective attributes, i.e., arousing-sleepy, exciting-gloomy, pleasant-unpleasant and

Table 6. 23 Relationship between Place Attachment and Residents' Cognitive Images

	Attachment1	Attachment2	Attachment3	Attachment4	Attachment5
Affective image ^a					
Arousing-sleepy	.166 (.002)*	.095 (.080)	.118 (.031)*	.142 (.009)*	.202 (<.001)**
Exciting-gloomy	.178 (.001)**	.148 (.006)*	.174 (.001)*	.138 (.011)*	.161 (.003)*
Pleasant-unpleasant	.176 (.001)*	.130 (.017)*	.155 (.004)*	.200 (<.001)**	.095 (.084)
Relaxing-distressing	.190 (<.001)**	.111 (.042)*	.148 (.006)*	.191 (<.001)**	.235 (<.001)**
Cognitive image ^b					
Seafood	.145 (.008)*	.105 (.053)	.143 (.009)*	.098 (.074)	.220 (<.001)**
Accommodation	.073 (.181)	.101 (.064)	.096 (.079)	-.023 (.669)	.258 (<.001)**
Shopping	.160 (.003)*	.189 (.001)*	.027 (.626)	.114 (.036)*	.105 (.058)
Cultural attraction	.175 (.001)*	.199 (<.001)**	.129 (.018)*	.167 (.002)*	.038 (.493)
Highway system	.187 (.001)*	.131 (.016)*	.087 (.110)	.227 (<.001)**	.148 (.007)*
Traffic congestion	.095 (.094)	.165 (.003)*	.093 (.100)	.207 (<.001)**	.121 (.034)**
Airline schedules	.222 (<.001)**	.209 (<.001)**	.279 (<.001)**	.273 (<.001)**	.178 (.002)*
Transportation cost	.237 (<.001)**	.229 (<.001)**	.256 (<.001)**	.180 (.001)*	.283 (<.001)**
Public transport	.331 (<.001)**	.234 (<.001)**	.316 (<.001)**	.234 (<.001)**	.286 (<.001)**
Night life	.233 (<.001)**	.264 (<.001)**	.274 (<.001)**	.186 (.001)*	.300 (<.001)**
Relaxing atmosphere	.250 (<.001)**	-.066 (.230)	.242 (<.001)**	.051 (.346)	.048 (.381)
Local people	.136 (.013)*	.059 (.286)	.065 (.236)	.132 (.016)*	.140 (.011)*
Football games	.199 (<.001)**	.111 (.049)*	.282 (<.001)**	.217 (<.001)**	.207 (<.001)**
Beaches	.272 (<.001)**	.106 (.053)	.289 (<.001)**	.153 (.005)*	.236 (<.001)**
Weather	.247 (<.001)**	.115 (.035)*	.156 (.004)*	.155 (.004)*	.175 (.001)*
Green space	.071 (.192)	.055 (.317)	.026 (.630)	.102 (.062)	.020 (.717)

Squares	.067 (.219)	.154 (.005)*	.096 (.077)	.153 (.005)*	.084 (.129)
Resorts	.147 (.007)*	.028 (.611)	.106 (.053)	.106 (<.053)	.081 (.143)
Scenery	.177 (.001)*	-.002 (.972)	.194 (<.001)**	.152 (.005)*	.266 (<.001)**
Ethnic attractions	.325 (<.001)**	.144 (.008)*	.176 (.001)*	.177 (.001)*	.236 (<.001)**
Golf course	.300 (<.001)**	.136 (.022)*	.224 (<.001)**	.125 (.037)*	.221 (<.001)**
Special events	.258 (<.001)**	.046 (.410)	.083 (.135)	.023 (.682)	.287 (<.001)**
Fashion shows	.145 (.011)*	.053 (.351)	.105 (.066)	.036 (.533)	.257 (<.001)**
Architecture	.218 (<.001)**	.064 (.242)	.186 (.001)*	.113 (.037)*	.074 (.183)
Value for money	.136 (.012)	.087 (.111)	.023 (.675)	.047 (.388)	.063 (.253)
Hygiene and cleanliness	.174 (.001)*	.155 (.004)*	.110 (.043)*	.102 (.061)	.019 (.743)

Note: Correlations reported above with probability below in parentheses.

^a1=extremely sleepy, 2=very sleepy, 3=neutral, 4=very arousing, 5=extremely arousing.

^b1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$

relaxing-distressing, and 15 cognitive image attributes, e.g., seafood and cultural attractions.

Attachment item 4 (I would like to live in Qingdao) was significantly positively correlated with all 4 affective attributes, i.e., arousing-sleepy, exciting-gloomy, pleasant-unpleasant and relaxing-distressing, and 17 cognitive attributes, e.g., shopping and cultural attractions.

Attachment item 5 (I do not want to live in other places except Qingdao) was significantly positively correlated with 3 affective attributes, i.e., arousing-sleepy, exciting-gloomy and relaxing-distressing and 17 cognitive attributes, e.g., seafood and accommodation. It can be seen that the 5 attachment items were significantly and positively correlated with the majority of the cognitive attributes and most of the affective attributes. This indicates that the more attached respondents were to Qingdao, the more favourable were their images on most of the

cognitive attributes and more positive feelings (e.g., exciting, arousing) were generated.

6.4 Influence of Importance of German Heritage, the 2008 Olympic Games and Qingdao International Beer Festival on Resident Images

Spearman's rho correlations were computed to examine the relationships between residents' images of Qingdao (4 affective and 26 cognitive attributes) and the importance of German heritage, the 2008 Olympic Games and the Qingdao International Beer Festival. The results of the analyses are presented in Table 6.24. It was found that the importance of German heritage was significantly positively correlated with 1 affective attribute, relaxing-distressing, and 17 cognitive attributes, e.g., cultural attractions and airline schedules with weak correlations ($r_s < .5$). This indicates that the more important residents perceived German heritage to be, the more favourable were their images on these 1 affective and 8 cognitive attributes.

The importance of the 2008 Olympic Games was found to be significantly and positively correlated with all 4 affective attribute, e.g., exciting-gloomy and 16 cognitive attributes, e.g., seafood and accommodation with weak correlations ($r_s < .5$). This indicates that the more important residents perceived the 2008 Olympic Games to be, the more favourable were their images on these 20 attributes.

The importance of the Qingdao International Beer Festival was found to be significantly and positively correlated with 1 affective attribute, relaxing-distressing and 18 cognitive attributes, e.g., seafood and cultural attractions with weak correlations ($r_s < .5$). This indicates that the more important residents perceived the Qingdao International Beer Festival to be, the more favourable were their images on these 19 attributes.

Table 6. 24 Relationships between Resident Images and Importance of German Heritage, the 2008 Olympic Games, and Qingdao International Beer Festival

	German heritage	2008 Olympic Games	Beer Festival
Affective image ^a			
Arousing-sleepy	.059 (.280)	.116 (.034)*	.048 (.380)
Exciting-gloomy	.037 (.498)	.143 (.009)*	.037 (.493)
Pleasant-unpleasant	.054 (.321)	.174 (.001)*	.034 (.536)
Relaxing-distressing	.161 (.003)*	.201 (<.001)**	.140 (.010)*
Cognitive image ^b			
Seafood	.053 (.333)	.117 (.034)*	.150 (.006)*
Accommodation	-.034 (.529)	.117 (.034)*	.053 (.328)
Shopping	.094 (.084)	.026 (.632)	.082 (.132)
Cultural attraction	.192 (<.001)**	.206 (<.001)**	.244 (<.001)**
Highway system	.044 (.424)	.192 (<.001)**	.205 (<.001)**
Traffic congestion	-.014 (.807)	.140 (.013)*	.023 (.691)
Airline schedules	.219 (<.001)**	.204 (<.001)**	.259 (<.001)**
Transportation cost	.101 (.067)	.069 (.209)	.164 (.003)*
Public transport	.108 (.049)*	.216 (<.001)**	.162 (.003)*
Night life	-.003 (.961)	.124 (.028)*	.069 (.220)
Relaxing atmosphere	.260 (<.001)**	.280 (<.001)**	.209 (<.001)**
Local people	.155 (.005)*	.054 (.326)	.241 (<.001)**
Football games	.174 (.002)*	.110 (.053)	.118 (.036)*
Beaches	-.004 (.948)	.052 (.348)	.028 (.613)
Weather	.131 (.016)*	.093 (.090)	.091 (.095)
Green space	.142	.057	.155

	(.009)*	(.303)	(.004)*
Squares	.140	.015	.169
	(.010)*	(.791)	(.002)*
Resorts	.233	.125	.262
	(<.001)**	(.024)*	(<.001)**
Scenery	.136	.095	.200
	(.013)*	(.088)	(<.001)**
Ethnic attractions	.271	.208	.215
	(<.001)**	(<.001)**	(<.001)**
Golf course	.099	.253	.048
	(.100)	(<.001)**	(.426)
Special events	.186	.228	.078
	(.001)*	(<.001)**	(.162)
Fashion shows	.218	.147	.138
	(<.001)**	(.010)*	(.015)*
Architecture	.328	.147	.138
	(<.001)**	(.010)*	(.015)*
Value for money	.328	.137	.266
	(<.001)**	(.012)*	(<.001)**
Hygiene and cleanliness	.120	.080	.143
	(.027)*	(.145)	(.009)*

Note: Correlations reported above with probability below in parentheses

^a1=very poor, 2=poor, 3=neutral, 4=good, 5=very good.

* $p < .05$, ** $p < .001$

6.5 Summary of the Chapter

This chapter presented the resident survey results to answer central research question three. It reports whether resident images differed depending on sex, education, age, occupation, length of residence, information sources, place attachment, and the importance of German Heritage, the 2008 Olympic Games and the Qingdao International Beer Festival. Results of Mann-Whitney U and Kruskal-Wallis tests showed that sex, education, age, occupation, length of residence, most important source used and number of sources used significantly affected residents' images to different degrees, ranging from 7 to 18 attributes. Results of Spearman's Rank Correlation tests also showed that place attachment and the importance of German heritage, the 2008 Olympic Games and Qingdao International Beer Festival were significantly

positively correlated with the majority of the image attributes examined in this research; however, all the identified correlations were weak. This chapter completes the statistical analyses of the data collected on Qingdao. The next chapter will discuss the implications of the research findings.

Chapter 7 Discussion and Implications

This chapter discusses the major findings that were reported in chapters 4, 5, and 6. It highlights the implications of those findings. First, the theoretical and managerial implications of findings relating to three central research questions are discussed. Second, methodological considerations concerning the assessment of the image construct are addressed. A chapter summary is then provided.

7.1 Relationships between Projected and Perceived Images of Qingdao

This section focuses on findings regarding central research question one: the relationships among three images i.e. the images projected by the Qingdao Municipal Government and the Qingdao Tourism Administration, images perceived by current visitors, and images perceived by residents. Prior to the discussion of these relationships, two groups of findings are reviewed. These include what images are projected by the aforementioned two agencies (as shown in promotional materials) and what images are perceived by current visitors and residents.

7.1.1 Images Projected by Qingdao Government Agencies

The images projected by Qingdao government agencies were explored primarily using content analysis. The 18 most frequently used descriptors that represented Qingdao's official image marketed between 2006 and 2009 were generated. These descriptors convey that the city has a lot to see and do and has the ability to meet needs of many kinds. These findings concur with those of Madsen (1992) regarding the purposes of image projection by post-industrial cities

such as Liverpool: to promote the city as a high-quality place that is suitable for visiting, living, and investment. It is apparent that Qingdao's image projection, although with a strong tourism focus, seeks to present a broader view of the city's economic base. Another finding is that Qingdao's projected image places great emphasis on cognitive attributes. These findings support Custodio and Gouveia's (2007) conclusion that appreciation of the cognitive image of a destination facilitates the understanding of the most salient attributes of the image projected by a destination.

The findings also have several practical implications for Qingdao's tourism marketing and for destinations in general. First, certain image themes projected by Qingdao government agencies (e.g., natural scenery combined with European style architecture) display the city's uniqueness. The use of this "uniqueness" strategy is meaningful for Qingdao's marketing, since it can give the city a competitive advantage that helps customers to distinguish the destination from its competitors (Goodall, 1990; Wu, 2009). Future image promotion should take advantage of these unique features to build a strong and unique brand image of the city.

Second, 'sailing city' was a theme launched and promoted due to Qingdao's hosting of the 29th Olympic Games sailing event and Paralympics Games. Marketers in Qingdao intended to use these events to help to build a brand of sailing city in both domestic and international markets. However, the promotion of the 'sailing city' image is dependent on the fame of a few past special events rather than specific tourism products. It is also directed at a niche market and, immediately prior to the Olympic Games, severe water quality problems arose which resulted in negative publicity. Consequently, this marketing practice may not be as effective, particularly when this image theme is promoted in the international market: people from other

countries may not know Qingdao, let alone its holding the 2008 Olympic Games sailing event for the 2008 Olympic Games are associated primarily with Beijing. In this regard, marketers should evaluate the feasibility of this image theme, possibly developing certain sailing-related tourism products as a basis for this image promotion, or presenting it as part of a broader group of coastal offerings.

Third, the projected images of Qingdao were created based on the opinions of those who were in charge of tourism marketing. No research was conducted to support the image and its components that have been the basis of marketing. Such a practice can easily lead to the construction and promotion of a concocted image. Mi (2003) found out that the same situation occurred in the case of Dalian which is one of Qingdao's major competitors. If this is the common situation in China, then marketing advantages may be gained by basing image creation and branding strategies on thorough research and monitoring their successes and deficiencies. Thus, Qingdao's marketers should use image studies as references for their image creation in the future, for example, by undertaking research on the salience of image components and by assessing the similarities and differences between images projected by Qingdao and its competitors.

7.1.2 Images Perceived by Visitors and Residents

Information concerning the images of Qingdao as perceived by current visitors and residents was obtained through interviews requiring the rating of predetermined cognitive and affective attributes as well as content analysis of responses to open-ended questions regarding overall image. It was found that certain attributes used in the scale questions, e.g., local people and special events, were evaluated differently when mentioned in the responses to the open-ended

questions (i.e., hospitable/friendly/nice/helpful and Fun/festive). Also, certain descriptors mentioned in the free responses (e.g., happy/free of worry/laid back/friendly, safe, and peaceful/tranquil) did not appear in the scaled items. Furthermore, a considerable number of participants did not answer the open-ended questions. This may suggest that some participants, if not most, had a weak image of Qingdao. Perhaps this is not surprising in the case of tourists who only spend a short time in Qingdao. However, these findings also support Echtner and Ritchie's (1991) assertion that the chosen measurement methods influence the ability to capture different elements of an image construct. In this sense, various methods (both structured and unstructured) should be employed to measure destination image. Specifically, rating scales can be used to measure cognitive and affective images to provide a standardized understanding of Qingdao's image regarding the city's strengths and weaknesses, while the free responses can be used to identify the attributes that are particularly salient to respondents.

These findings also have some practical implications for marketers. First, the rating of the cognitive attributes pinpoints Qingdao's strengths and weaknesses. Specifically, beaches, seafood, scenery, local people, and green space received higher scores than other attributes by both visitors and residents of Qingdao. This suggests that these five attributes have a greater impact on visitors' and residents' images of Qingdao than other attributes and should be used as projected image themes in the near future. On the contrary, traffic congestion, night life, value for money, cultural attractions, transportation cost, football games, and fashion shows received lower scores by both visitors and residents than other attributes being studied. These attributes may represent the weaknesses of Qingdao and its tourism products due to their inability to lead to participants' satisfaction. Although these issues may not be unique to

Qingdao, consideration should be given to them to reduce consumers' least favourable images of Qingdao. This should involve improving these attribute-related aspects of the tourism product as well as repositioning Qingdao's communications to evoke an image change with regards to these attributes in the target markets. Only when current visitors' and residents' images of these attributes are improved can their overall images of Qingdao be improved. Alternatively, some of these items may relate to products that Qingdao does not wish to emphasize.

Second, the images of Qingdao perceived by visitors and residents were also evaluated using an importance measure. The results showed that more participants (both visitors and residents) mentioned the importance of the attributes of beaches, seafood, weather, and scenery when compared to other attributes. These four attributes are the salient features of Qingdao in the minds of the participants and are thus critical for their image formation. In this sense, these attributes should be considered together with those attributes that received higher ratings by marketers to aid in the construction and promotion of Qingdao's projected image. In this case, beaches, seafood and scenery, which were both rated high and considered important by relatively more participants, should be given great consideration by marketers in their future image design. Conversely, the attributes that were both rated low and considered important by relatively fewer participants (i.e., fashion shows and football games) did not seem to be critical to Qingdao's marketing and should be excluded from projected images for the next few years until there is evidence of changes in market priorities. Another important aspect deserving of attention is that few attributes received low ratings, but they were considered important by relatively more respondents (e.g., visitors' images of transportation

cost). Since these attributes are critical to constructing the respondents' images of Qingdao, these attribute-related aspects and tourism products should be improved in order to reduce negative impacts on respondents' overall evaluations of the destination. For example, actions such as discounting visitors' transportation fees could be taken to resolve concerns about transportation costs.

Third, since formation of images by visitors and residents are based primarily on cognitive and affective dimensions, marketers should consider both dimensions when making promotional strategies. Specifically, image promotions should emphasize not only a destination's unique features but also the aspects that speak to the needs of its potential consumers. In the first case, potential consumers' beliefs and knowledge in relation to the destination will be strengthened, while in the second case positive feelings or emotions related to the destination will be evoked. Qingdao is more likely to gain a privileged position among its competitors in potential consumers' considerations by addressing both cognitive and affective image attributes.

Fourth, residents perceived a generally positive image of Qingdao, with the exception of its noise and traffic congestion. Given the indication that these attributes were of the greatest concern to participants, efforts should be made by Qingdao's public sector to improve the current situation.

7.1.3 Relationship between Projected and Perceived Images of Qingdao

The relationship between the projected and perceived images associated with Qingdao was first explored through a qualitative comparison between the 18 identified projected image descriptors and their perceived image attribute (cognitive and overall) counterparts. The

importance of these image descriptors/attributes in the composition of both the projected and perceived images was evaluated. The inclusion of this qualitative evaluation is consistent with the approach adopted by Andreu, Bigne, and Cooper (2000) in their study comparing the projected and perceived images of Spain. Further, although working at a different scale (city as opposed to country), the results of this study are somewhat similar to those of Andreu, Bigne, Cooper and Young (1999) in the sense that both congruence and differences were found between the projected and perceived images of the destination.

Both the images projected by Qingdao government agencies and those perceived by visitors emphasized similar themes, such as natural scenery/mountain/forest/flora and special events/holding sailing events. In the terminology of Young (1999), these themes are the “zone of consensus” where the tourist industry’s and the tourists’ construction of place agree (p. 385). This agreement indicates that marketers were to some extent successful in transmitting images that were accepted by visitors to Qingdao. From the perspective of those involved in this area’s tourism, this agreement implies a successful image promotion.

The qualitative analysis also showed that certain themes identified in the projected images of Qingdao did not have corresponding perceived image (cognitive and overall) counterparts (e.g., facilities and high technology). These themes represent the gaps between the images projected by Qingdao and those perceived by visitors. Gaps also existed in the themes that were perceived by visitors in their overall images but not in the projected images (e.g., good summer resort and safe place). These gaps, as described by Young (1999), are in the “zone of producer surplus” and “zone of consumer surplus” (p. 386), respectively. The former represents the images promoted by Qingdao government agencies that were not

accepted by visitors, while the latter indicates those themes that are considered important by visitors but not projected by Qingdao. Young points out that marketers should do their best to minimize the “zone of producer surplus” and “zone of consumer surplus” and maximize the “zone of consensus.” It is worth noting that certain projected image themes do not have cognitive image counterparts in this study because of the drawback related to the concurrent design and implementation of this research i.e. the image gaps identified in the “zone of producer surplus” cannot all be attributed to a communication failure on the part of marketers but may be a consequence of the research design.

The projected and perceived image relationship was also measured through a calculation of the correlations between the 11 projected image descriptors and their cognitive image counterparts. The results showed that the emphasis of Qingdao’s projected images did not correlate significantly to what visitors/residents considered to be of quality, of importance, or both. In other words, although both the projected and perceived images of Qingdao included the same 11 descriptors/attributes, the degree to which these descriptors were emphasized in the two types of images did not agree with each other. These findings provide more detailed information on the projected and perceived image relationship when compared to those from qualitative evaluations; i.e., Qingdao’s current image projection may not be appropriate with regard to the weight assigned to the various image themes. This point is also supported by the finding that both visitors and residents had the highest preference for Qingdao’s coastal characteristics (beaches and seafood) with regard to both quality and importance. These two attributes did not receive the same level of attention in the projected images of the city, with rankings of 8 and 11 based on the number of times they appeared in the brochures. Marketers

in Qingdao may deliberately devalue these attributes in their projected image design because these characteristics may not help to positioning to Qingdao to gain a competitive advantage over other coastal destinations. As one possible solution, marketers can combine the coastal characteristics with other tourism products to create a new feature of the city.

7.1.4 Similarities and Differences between Images Perceived by Visitors and by Residents

This paper investigates the similarities and differences in the cognitive and affective images of Qingdao, China, perceived by visitors and residents. The results indicate no significant differences in participants' images regarding 18 out of 30 attributes. Additionally, both visitors and residents had positive images associated with these 18 attributes. Given the coherence between the images of visitors and residents and their relatively good images of Qingdao, it can be concluded that Qingdao's image promotion and communication are successful to a certain degree. Marketers in Qingdao could use these image attributes that are preferred by both visitors and residents, especially those that are highly regarded, in promoting the city. For example, themes such as relaxing atmosphere can be included in the projected images when promoting a general sense of Qingdao as a holiday destination and residential location.

The absence of image differences between visitors and residents also implies that the two groups held shared values. As suggested by Ryan and Aicken (2010), these shared values may promote a more positive attitude in residents toward tourists and local tourism development; i.e., residents would become more tolerant of tourists and be more supportive of tourism development. It can be argued that it is desirable to have congruence between visitors' and residents' images and that attributes of the destination that are promoted for a

growing gap between the two may lead to increasing reservations on the part of residents concerning the desirability of their city as a place to live.

The images viewed by visitors and residents were significantly different in 10 cognitive and 2 affective attributes. This could be caused by differences between the two groups in terms of familiarity with the city, needs, use of the facilities of Qingdao, levels of attachment to the city, and involvement in the tourism industry. These image differences provide information for marketers to consider in choosing different themes when targeting different consumer groups. For example, themes such as unique scenery and cultural attractions can be used as selling points for tourists, while seafood and a clean city may be appropriate for attracting residents to participate in tourism and recreational events.

7.2 Factors Influencing Images of Visitors and Residents

This research addressed the issue of perceived image construction of current visitors and residents (central research questions two and three). The results indicate that sex, education, age, occupation, place of residence, previous travel experience, motivation, the most important information source used, and the number of sources used each has a small effect on visitors' images of Qingdao. Place attachment and the importance of the German heritage, the 2008 Olympic Games, and the Qingdao International Beer Festival significantly and positively correlated with the images of Qingdao perceived by visitors. Additionally, sex influenced residents' images to a small extent, while education, age, occupation, length of residence, and the number of sources used significantly influenced residents' image to a moderate degree. The most important source used exerted an influence on residents' images to a large extent.

Place attachment and the importance of German heritage, the 2008 Olympic Games, and the Qingdao International Beer Festival significantly and positively correlated with the images of Qingdao perceived by residents to a moderate or large degree. These findings shed some light on image formation theory by providing empirical evidence related to the factors that contribute to the formation of a destination's image.

Another implication of these results is that socio-demographic characteristics are of little help to those segmenting visitor markets in a general sense. However, if marketers want to promote a niche market, (e.g., a tour focusing on the city's squares), this study shows that they need to focus their promotion on young people rather than older ones. One surprise result from the study's findings is that place of residence only significantly affected visitors' images of two attributes: accommodation and exciting-gloomy. These findings seemed to be inconsistent with those of other researchers who indicated that place of residence has a significant impact on more of the factors being examined (e.g., Gartner & Hunt, 1987; Rittichainuwat, Qu, & Brown, 2001). Additionally, other findings of the current study are contrary to those of other researchers (e.g., Fakeye & Crompton, 1991; San Martin & Rodriguez del Bosque, 2008) in that this study showed that visitors who live far away from Qingdao had more positive images of these two attributes than those who lived closer to the city. These findings provide some managerial implications for Qingdao's marketers. For example, marketers can highlight accommodations in their promotional campaigns targeting visitors from Hong Kong, Macau and elsewhere in Asia. The results also may indicate that Qingdao has a strong image that is widely accepted so that differences among people with different characteristics are small.

Previous experience travelling to Qingdao had a significant effect on only two cognitive

attributes: seafood and special events. These findings are also surprising. The slight differences between the images of first-time and repeat visitors revealed in the current study imply that few changes occur after respondents' initial visits. Generally speaking, these results do not support the assertions by others (e.g., Chon, 1987; Fakeye & Crompton, 1991) that an individual's experience with a destination leads to an image change that moves in a more complex direction, i.e., the images formed during a first visit are similar to a simple black and white picture, while images constructed from repeat visits portray the varied dimensions of a destination, due to visitors' greater interaction with the place and its people (Fakeye & Crompton, 1991). In the case of Qingdao, it may also indicate a close relationship between the product that is advertised and that is delivered.

Motivations significantly affected four cognitive attributes and all the affective attributes. These results confirm the conclusions of earlier research indicating that individuals' motivations influenced their affective images to a great extent (Baloglu & Brinberg, 1997; Dann, 1996; Gartner, 1993). Based on these findings, there is a managerial implication, i.e., marketers need to develop a communication tool focusing on the motivations of certain groups of visitors (e.g., entertainment and relaxation or excitement). For example, they can use themes, such as beaches or a relaxing atmosphere, to draw the attention of those whose are motivated by entertainment and relaxation.

The number of sources used, rather than the most important source used, significantly influenced visitors' images. This study found that visitors who used fewer sources had a more positive image than those who used more sources when they constructed their images of Qingdao's seafood, shopping, cultural attractions, traffic congestion, and night life. In this

regard, if these five themes are promoted, marketers should concentrate their efforts in a few key forms of media. It should be noted that the information sources used in this research are not exhaustive. Some sources, e.g., the travel blog and residents' experiences in the community, may also have a strong influence on image formation and thus deserve further academic attention.

The importance of the 2008 Olympic Games had a positive and significant relationship with most of the cognitive attributes. This suggests that an Olympics theme can help to stimulate visitors' positive images of Qingdao. However, the theme may not work well alone due to the weak correlations identified. It may also be a theme that may diminish in importance over time.

The importance of German heritage and the Qingdao International Beer Festival had a positive and significant relationship with a relatively small number of attributes. This implies that visitors did not widely recognize the importance of these resources. As such, these two factors, perhaps surprisingly, contribute little to Qingdao's image marketing to visitors.

Concerning factors influence residents' images, the results showed that sex was not a good predictor. Consequently, it is not appropriate to use this factor as the criteria for segmenting residents. Other socio-demographic characteristics - education, age, occupation, and length of residence - had a moderately significant effect on residents' images. Marketers need to consider these factors when promotional initiatives that are targeted to residents. For example, if marketers launch activities relating to night life in Qingdao, they should focus on people who are 45 and over. This group had a more positive image regarding night life than other age groups.

The study revealed that the most important information source used had a very significant influence on residents' images, while the number of sources used was only moderately significant. These findings provide some practical implications for Qingdao's image marketing towards residents. For instance, marketers should use tourist brochures as a major source when promoting themes such as hygiene and cleanliness. Additionally, marketers should adopt a few key sources in their promotions concerning themes such as special events and architecture.

Place attachment, and the importance of the 2008 Olympic Games, German heritage, and the Qingdao International Beer Festival were positively correlated with more than half of the image attributes for residents. This indicates that marketers need to consider these factors in the images promoted to residents. However, as most of the correlations were weak, simply focusing on increasing potential consumers' attachment to Qingdao would do little to help inform their image formation.

7.3 Methodological Considerations Regarding Image Assessment

While the measurement methods adopted are able to fulfill the research purpose, certain issues emerged during the research process. Thus, a discussion concerning the challenges and lessons learned is provided below.

One challenge of this research involves the reliability of coding in the qualitative content analysis of promotional materials and responses to open-ended questions. Due to the nature of content analysis, the choice of themes can potentially be influenced by researcher bias. This bias, as commented by Krendel (1970), results from researchers' personal values and attitudes and cannot be avoided. To reduce researcher bias, efforts were made to reach the highest

reliability possible (i.e., review of the image literature and discussions with peer researchers).

Another challenge is the comparison of the projected and perceived images associated with Qingdao. Since these two types of images are examined using different types of information sources (promotional materials and questionnaires), the information obtained from the analyses is in different forms. This adds to the difficulty of comparing projected and perceived images. In this regard, the current research provides new thinking on this methodological issue by using both qualitative evaluation and correlation analysis to explore the projected and perceived image relationship. Despite this contribution, the concurrent design used in this research influenced the attribute selection for the questionnaires. That is, certain attributes chosen did not match those representing projected images. This left a gap in the image comparison regarding certain attributes. To avoid this problem, future research can adopt a sequential research design to ensure the attributes retrieved from the projected images are tested as perceived image attributes.

As this research specifically targets Qingdao, China, the results can only be generalized to the sample population. However, the findings can be useful to those who undertake the during-visit image studies in other settings and can be used as sources for image comparison with other destinations. Also, the methods used and the survey instruments may be used as a point of departure by other researchers.

7.4 Chapter Summary

This chapter answers the “so-what” questions regarding the major findings of this research. Managerial implications for Qingdao and other tourism destinations were discussed and

methodological and conceptual issues have been addressed. Theoretically, the findings of this research add to the knowledge in terms of projected and perceived image comparisons and during-visit image formation. Practically, the findings provide information that can inform Qingdao's market segmentation and image promotion. In addition, this chapter discussed methodological challenges that emerged during the research process.

It is worth noting that the findings of this research can only present a general description of the projected and perceived image relationship. They cannot be used to explain adequately the degree of congruence and differences ascribed to this relationship. The research relies heavily upon "correlation analysis", both statistical and judgmental, rather than the establishment of causal relationships. Further, although the affective images are an integral component of the perceived image, they did not have corresponding counterparts in the projected image and thus were excluded from the comparison analysis. The next chapter provides an overview of the study and discusses the research contributions and recommendations for future research.

Chapter 8 Conclusions and Recommendations

This chapter presents a summary of the research. It includes an overview of the purpose of the study, research methods and major findings. Additionally, this chapter discusses the study's contribution to the literature and provides recommendations for future research.

8.1 Summary of the Study

Destinations throughout the world project appealing images as part of a marketing strategy. They do this because the images projected by a destination can inform its potential consumers and, in turn, influence their travel behaviours. However, individuals' images about a destination are affected not only by projected images but also by sources of information that are not controlled by the destination (e.g., word of mouth) and personal factors (e.g., travel motivations). In other words, the images projected by a destination may not always play a part in influencing potential consumers' images about that place and their travel choices. Therefore, destination marketers must determine the extent to which their projected images influence the perceived images of the target audience and their consequent behaviour, and whether or not these perceived images are affected by other factors.

With the goal of adding to the literature, this study explored relationships between the projected and perceived images of Qingdao, China, focusing specifically on the role of ethnic attractions and special events in influencing the perceived images of current visitors and residents. It also investigated whether the information sources used, socio-demographic characteristics, motivations, previous travel experience, and place attachment influence the

images of current visitors and residents. Three central research questions emerged from these research goals. The first question focused on understanding: (1) the images projected by Qingdao government agencies responsible for tourism marketing, (2) the images of Qingdao perceived by current visitors, (3) the images of Qingdao perceived by residents, and (4) the relationships among the aforementioned three groups of images. The second question examined whether or not socio-demographic characteristics, motivations, previous travel experience, information sources, place attachment, and the importance of ethnic attractions and special events influence the images of current visitors to Qingdao. Finally, the third question investigated whether or not socio-demographic characteristics, information sources, place attachment, and the importance of ethnic attractions and special events influence the images of residents of Qingdao.

To answer these research questions, three types of sources were used: promotional materials, key informant interview transcripts, and survey questionnaires. Promotional materials issued by the Qingdao Municipal Government and the Qingdao Tourism Administration from 2006 to 2009 were used as the primary source for exploring the images projected by Qingdao government agencies. These materials, including five tourist brochures and one travel guide, were gathered through contact with the abovementioned two agencies. Qualitative content analysis was used to elicit image descriptors from texts and pictures of the promotional materials. Frequencies of occurrence of elicited image descriptors were then calculated for all promotional materials. The descriptors that appeared most frequently (appearing at least 10 times in the promotional materials) were retrieved and used for subsequent analysis.

Key informant interviews were also conducted to aid in the understanding of the projected images of Qingdao. Five officials, planners, and scholars responsible for Qingdao's tourism marketing and planning were interviewed in April and May 2009 using the snowball sampling technique. Direct quotations from the interview transcripts were used to supplement and validate the findings from content analysis of the promotional materials.

Questionnaire surveys were used to investigate the images of Qingdao perceived by visitors and residents and whether certain factors (e.g., information sources and socio-demographic characteristics) influence the perceived images of these two groups. A two-stage sampling procedure was adopted. First, three survey sites (i.e., Zhanqiao Pier, Laoshan Mountain, and Qingdao Beer Museum) in Qingdao were selected based on their type and popularity (according to recommendations of the Qingdao Tourism Administration Web site). Second, individuals over the age of 18 who visited one of these three sites between June 10 and July 10, 2009 were selected for interview using a random sampling technique. A total of 990 questionnaires were collected and 915 were used for the analyses (337 residents and 578 visitors). Descriptive statistics were used to explore the cognitive and affective images of visitors and residents. Content analysis was performed to elicit overall image descriptors (mentioned by at least 10% of participants) and calculate their frequencies of occurrence.

Based on the results of the content analysis of promotional materials and descriptive statistics of the questionnaires, further analysis was conducted to identify the relationships among the following three images: (1) images projected by Qingdao government agencies, (2) images of Qingdao perceived by current visitors, and (3) images of Qingdao perceived by residents. Descriptive statistics, chi-square tests, Spearman correlation coefficient analysis,

and qualitative evaluation were used to explore these relationships.

Major findings relating to the three central research questions are summarized as follows.

Central Research Question 1:

Images Projected by Qingdao Government Agencies

Qingdao government agencies emphasized multiple image themes/descriptors (18) in their images projected between 2006 and 2009. These image themes focused on three aspects of Qingdao: tourism resources and products, well-established infrastructure and facilities, and high level of development. Marketers clearly aimed to portray Qingdao as a multi-functional place suitable for visiting, living, and investment. With this image strategy, marketers in Qingdao focused on enlarging their market segments in general, with no specific attention being given to particular market segments. However, marketers placed great emphasis on promoting a new theme (i.e., “sailing city”) from 2006 to 2009. This theme had no strong product support and its target segment was unclear; consequently, the promotion of this image theme may not bring the hoped-for benefits to Qingdao. Such issues are important to the image marketing of Qingdao and destinations in general and should be taken into consideration by marketers.

Images of Qingdao Perceived by Visitors

Visitors had positive overall images of Qingdao focusing on what to see and to do, the social environment, and its relaxed, holiday-like atmosphere. With a similar positive evaluation, visitors held a good image regarding all of the four affective attributes that were explored. They were more likely to feel aroused, excited, pleasant, and relaxed in Qingdao.

With regard to their cognitive images, most visitors held a positive image with respect to the quality of the 26 predetermined attributes (mean scores greater than 4 on a 5-point Likert scale). However, visitors' opinions on the importance of these attributes in constructing their images of Qingdao were quite diverse. As quality and importance measures are both important to the evaluation of perceived image, the attributes that received high scores on both quality and importance (i.e., seafood, scenery, beaches, special events, ethnic attractions, weather, hygiene and cleanliness, cultural attractions) are particularly valuable for Qingdao's image marketing to visitors.

Images of Qingdao Perceived by Residents

Residents' overall images of Qingdao were mostly positive, emphasizing the city's tourism-related aspects, the cultural and social aspects, and its peaceful and friendly atmosphere. Some of their images reflected their position as hosts. These host-oriented images were primarily positive evaluations. The one exception was the complaint about tourism-related noise in Qingdao. Regarding their affective images, residents had positive images with respect to all four attributes. Most residents felt aroused, excited, pleasant, and relaxed in Qingdao. With respect to their cognitive images of Qingdao, most residents had positive images concerning the quality of 25 of 26 predetermined attributes, while their evaluations of the importance of these attributes in constructing their images of Qingdao differed greatly. Since both quality and importance measures are critical for a destination's image marketing, the attributes that received high scores in both (i.e., beaches, seafood, weather, scenery, hygiene and cleanliness, local people, green space, relaxing atmosphere, ethnic attractions, special events, architecture) should be given great consideration by

marketers in their image marketing targeting residents.

Similarities and Differences between Images of Qingdao Perceived by Visitors and Residents

The images of visitors and residents differed significantly in terms of five overall descriptors: scenery/beautiful, beer/good beer, relaxing/relaxed, peaceful/tranquil, and hospitable/welcoming. Of these, visitors had much higher percentages for scenery, beer/good beer, and relaxing/relaxed than did residents. No significant differences were found between visitors and residents in 17 image descriptors: local, seafood/variety of seafood/good seafood, cultural attractions, beaches/charming/beautiful, pleasant weather, unique ethnic attractions, cleanliness/clean streets, architecture/European style/charming/unique, good tourism destination, excellent service, good summer resort, pleasant, friendly, vital, modern, happy, and harmonious. Additionally, descriptors such as happy/free of worry/laid back, attractive city, and fun/festive were only mentioned by visitors, while time-honored Taoist culture, cozy, and noisy were reported solely by residents in their overall images of Qingdao.

Concerning cognitive images, no significant differences were found between the images of visitors and residents in 16 attributes: accommodation, shopping, transportation cost, public transport, night life, relaxing atmosphere, football games, green space, squares, resorts, ethnic attractions, golf course, special events, fashion shows, architecture, and value for money. However, the images of visitors and residents differed significantly in 10 attributes: seafood, cultural attractions, highway system, traffic congestion, airline schedules, local people, beaches, weather, scenery, and hygiene and cleanliness. Of these, visitors had more positive images than residents in only two attributes: cultural attractions and traffic congestion.

With respect to affective images, the images of visitors and residents differed significantly in the attributes of arousing-sleepy and exciting-gloomy. Residents were more positive toward these two attributes. No significant differences were discovered between these two groups in pleasant-unpleasant and relaxing-distressing affective image attributes.

Relationships between Images projected by Qingdao and Those Perceived by Visitors

Of the 18 identified projected image descriptors, eight were both considered important by more than 10 percent of visitors as cognitive image attributes and mentioned by at least 10 percent of visitors in their overall images of Qingdao. These descriptors (i.e., natural scenery/mountain/forest/flora, special events/holding sailing events, European style architecture, European feature attractions, beaches, seafood, historical and cultural attractions, and weather/pleasant weather) were the overlapping parts of images projected by Qingdao and those perceived by visitors. Three other projected image descriptors (i.e., shopping, city landscape/skyscrapers/modern buildings, and place for vacations and holidays) were only mentioned by visitors in their overall images of Qingdao. They were also places where the projected images and perceived images converge.

Seven projected image descriptors did not appear in either the cognitive or overall image attributes list. These descriptors were the gaps between the images projected by Qingdao government agencies and those perceived by visitors. i.e., these descriptors were emphasized by marketers in Qingdao, while they were not considered important to or caught by visitors in their images of Qingdao.

The projected and perceived image relationship was also examined through correlations between 11 projected image descriptors (frequencies) and their cognitive image

counterparts with regard to three groups of values: (1) the mean values, (2) the percentage of visitors who deemed these attributes important, and (3) an image index regarding both quality and relative importance of the cognitive attributes. The results showed that the emphasis of Qingdao's projected images does not relate closely to what visitors consider to be of quality, of importance, or both.

Relationships between Images Projected by Qingdao and Perceived by Residents

Of the 18 identified projected image attributes, seven descriptors had both cognitive and overall image counterparts: natural scenery/mountain/forest/flora, European style architecture, European feature attractions, beaches, seafood, historical and cultural attractions, and weather/pleasant weather. They represent the image congruence between the images projected by Qingdao government agencies and those perceived by residents. Another six projected image descriptors (i.e., special events/holding special events, city landscape/skyscrapers/modern buildings, squares, place for vacations and holidays, golf, and shopping) that only had overall image counterparts were also where Qingdao's projected images and residents' perceived images agree.

Five projected image descriptors did not have cognitive or overall image counterparts: facilities, transportation system/air routes to more than 20 countries/highway and railway networks, place for sightseeing, place for water sports, and high technology. These descriptors represent the gaps between the images projected by Qingdao government agencies and those perceived by residents.

The relationship between the images projected by Qingdao and those perceived by residents was also investigated through examining the correlations between the 11 projected

image descriptors (frequency) and three groups of values regarding residents' perceived images: (1) the mean values of the 11 perceived image attributes, (2) the percentage of residents who deemed these attributes important, and (3) an image index regarding values of both quality and relative importance of the cognitive attributes. The results showed that the emphasis of the projected images of Qingdao does not relate closely to what residents consider to be of quality, of importance, or both.

Central Research Question 2:

Sex, education, age, occupation, place of residence, previous travel experience, primary motivation, most important information source used, and number of sources used significantly influenced visitors in their images of between one and eight attributes. Generally speaking, these factors influenced visitors' images to a small extent and, therefore, can help little in identifying visitors' market segments unless certain niche markets are to be sought and promoted. Place attachment and importance of the 2008 Olympic Games were significantly positively correlated with most of the image attributes, while the importance of German heritage and the Qingdao International Beer Festival were significantly positively correlated with eight or fewer attributes. The correlations identified were all weak. These findings indicate that place attachment, the importance of the 2008 Olympic Games, and the importance of German heritage and the Qingdao International Beer Festival, particularly the former two, can be used as references in image segment evaluation.

Central Research Question 3:

Sex significantly influenced residents' images with respect to seven attributes. This factor provides little help in segmenting the market. Education, age, occupation, length of

residence, most important information source used, and number of sources used significantly affected residents' images with respect to 11 to 21 attributes. These factors have an impact on residents' images to a moderate to high degree and, therefore, can be used to help segment markets targeting residents. Place attachment and the importance of German heritage, the 2008 Olympic Games, and the Qingdao International Beer Festival were significantly positively correlated with most of the image attributes with weak correlations; these factors can thus be used as references for the market segmentation of residents.

8.2 Reflection on the Research Model

Based on the research findings, the research model (Figure 2.1) has been modified (Figure 8.1). Only place attachment and the importance of the 2008 Olympic Games were found to be significantly related to visitor images (circled by the solid line). However, most factors examined (i.e., most important source used, number of sources used, age, education, occupation, length of residence, the importance of German heritage, the 2008 Olympic Games, and Qingdao International Beer Festival) influenced resident images to a moderate or large extent (circled by the dotted line). These influential factors should be taken into consideration by marketers in Qingdao in their future projected image construction and promotion.

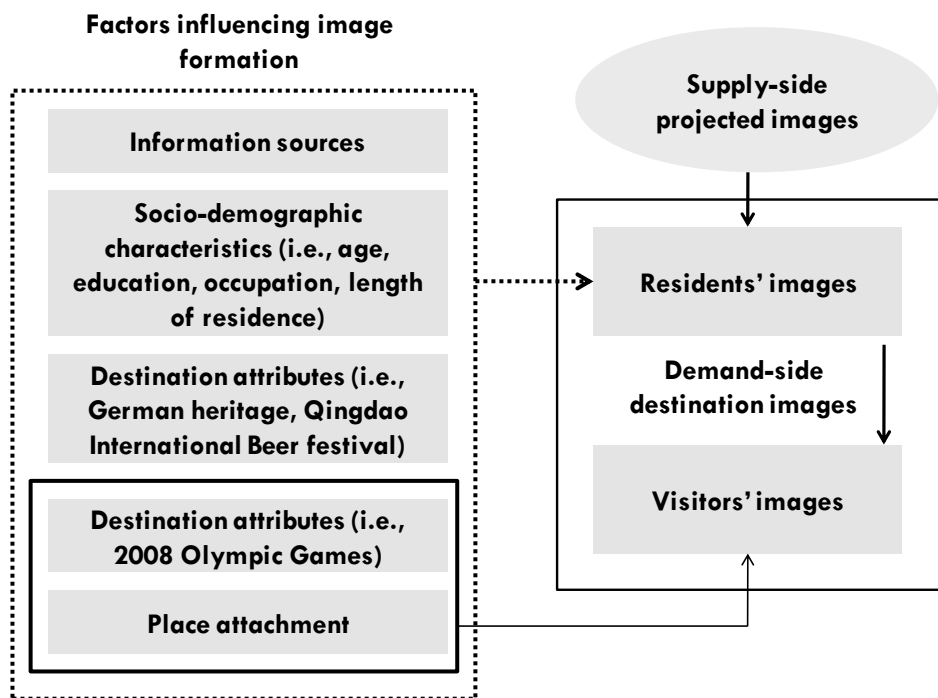


Figure 8. 1 Revised Research Model

In a general sense, a variety of factors can lead to individuals' image change about a destination. The changes, on the one hand, can be a result of the implementation of government strategies, which may lead to a more positive image of potential consumers about the place. However, this practice may take several years of marketing efforts. On the other hand, individuals' images about a destination can be changed instantly due to the occurrence of extreme events. For example, the explosions of the nuclear power plants in Japan in March 2011 have exerted a negative image about the country because of the radiation threat to human lives. Safety issues have emerged with regard to both the consideration of Japan as a tourism destination and consumption of its products.

8.3 Research Contributions

This research has explored the projected and perceived destination images of Qingdao and their relationships. The results indicate the performance of Qingdao's image promotion by revealing gaps between the projected and perceived images. Qingdao marketers can then adjust their promoted image according to visitors and residents' preferences rather than using an image that is concocted by themselves on the basis of limited information. In addition, this study can help marketers to facilitate their projected image transmission based on the use of media channels that are prioritized by visitors and residents. Finally, this research provides information on the different image preferences by different groups of potential consumers in terms of their place of residence, age, gender, educational level, etc., thereby facilitating the creation of various image promotional strategies for the destination geared toward different market segments.

Academically, this research enriches the body of literature concerning the following aspects of image studies. First, this study explores the relationship between projected and perceived images regarding a destination. This relationship is critical to evaluate the success of a destination's image promotion (Stabler, 1988). However, comparison of projected and perceived image relationships has remained a less researched area because of the methodological difficulties in comparing these two types of images. That is, different types of sources are usually used in examining the projected and perceived images. The current research attempts to compare these different types of images and, although it does not resolve the issue completely, it provides a reference for such future studies.

Second, this research examines the influence of information sources, socio-demographic

characteristics, motivation, previous travel experiences, and place attachment on visitors' and residents' images of Qingdao. The results confirmed the findings of previous studies, such as Baloglu and McCleary (1999a) and Beerli and Martin (2004a), that sex, education, age, occupation, place of residence, previous travel experience, motivation, and information sources affect individuals' image formation. However, some findings are contradictory to those of previous studies and require more research investigations in the future. For example, a finding which is contradictory to that of Baloglu and McCleary (1999a) is that visitors who used fewer information sources were more likely to form a more positive image of Qingdao than those who used more sources. Perhaps it is unrealistic to expect generalizations to vary consistently from place to place in association with socio-demographic variable for the places themselves are different, as may be the reasons for people visiting them. In addition, this study adds to the image literature by providing empirical evidence concerning during-visit image formation and the influence of place attachment on individuals' perceived images, which are less researched areas in image studies. In addition, the research provides novel perspectives by including the images of residents in the study and, also, highlighting the possibility that a special event (the Olympic Games) and ethnic culture (German heritage) may influence image formation. Few studies have tests the importance of certain image attributes (i.e., ethnic attractions and special events) in the context of individuals' overall image formation.

Third, this research focuses on Qingdao, China, as the study site. Few such empirical image studies have been undertaken previously in areas outside of North America and Europe. Thus, it adds to knowledge regarding how a Chinese destination performs in its marketing

practice and how individuals from different cultures interpret the image of this place. China does not have a long history of tourism marketing and, as an economy that is in transition from a centrally-planned to a market-oriented economy, marketing budgets are often lower and marketing experience may be less than that of its competitors. With a relatively new domestic tourism market and as a novel destination for international visitors, China's tourism has grown rapidly, but continued success will likely depend in part upon the adoption of successful marketing strategies which will need to be informed by and built upon evaluations of the performance of current marketing initiatives.

8.4 Recommendations for Future Research

This research explored destination images. It focused on supply and demand in terms of image relationships and factors influencing perceived image formation in the Chinese context. The findings provide a current picture of Qingdao's destination image marketing performance. However, certain aspects, not examined in this study, need to be considered in the future.

First, a sequential research design should be used to aid in understanding the relationship between projected and perceived images. With this type of design, projected images associated with a destination could be explored first. The image descriptors obtained from the analysis of promotional materials could be used as image attributes in the second research stage: the examination of perceived images. In this way, a deficiency of the current study (a few identified projected image descriptors were not assessed by the research participants because they were not included in the predetermined attribute list) could be avoided. In this way, the image comparison would be more extensive. However, the fact that

projected and perceived images are not amenable to measurement in the same way is likely to remain a thorny problem that complicates comparison.

Second, comparison of projected and perceived images is a relatively new research task, and extant studies exploring this relationship focus mainly on textual information (e.g., the analysis of promotional materials and responses generated from focus groups or interviews). Future studies need to consider the pictorial elements of promotional materials, as they present an important part of destination image promotion.

Third, this research focused on identifying the congruence and differences between the projected and perceived images of a destination. To facilitate destination marketing, studies that compare the projected and perceived images of several competing destinations are required to inform the positioning of destinations with respect to their competitors.

Fourth, the effect of information sources is an important aspect of image studies. With the rapid development of the information dissemination technologies, new types of media are emerging, such as travel blogs. Future research should take these new sources into consideration and examine their role in image formation.

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**Appendix I: Questionnaires for Actual International and Domestic Visitors
(English, Chinese, Korean, and Japanese)**

Questionnaires for Actual International and Domestic Visitors

Section one: Please describe your overall image about Qingdao.

1. What images or characteristics come to mind when you think of Qingdao as a tourism destination?

2. How would you describe the atmosphere or mood that you would expect to experience while visiting Qingdao?

Section two: Perceived images of Qingdao based on the following attributes

1. Please indicate your perception of the quality of the following items regarding Qingdao and whether these items are important to Qingdao's tourism (Yes or no).

	Very good	Good	Neutral	Poor	Very poor	Don't know	Important (Y/N)
1) Seafood							
2) Accommodations							
3) Shopping							
4) Cultural attractions							
5) Highway system							
6) Traffic congestion							
7) Airline schedules							
8) Transportation cost							
9) Public transport							
10) Night life							
11) Relaxing atmosphere							
12) Local people							
13) Football games							
14) Beaches							
15) Weather							
16) Green space							
17) Squares							
18) Resorts							
19) Scenery							
20) Ethnic attractions							
21) Golf courses							
22) Special events							
23) Fashion shows							
24) Architecture							
25) Value for money							
26) Hygiene and cleanliness							

2. Please indicate your level of agreement about the following items associated with your perception of Qingdao?

	Extremely	Very	Neutral	Very	Extremely	
Arousing						Sleepy
Exciting						Gloomy
Pleasant						Unpleasant
Relaxing						Distressing

Section three: Factors influencing image formation

1. Please indicate the level of importance of the following items in influencing your image of Qingdao.

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very important	Don't know
German heritage						
Beer festival						
Olympic Games						

2. Please indicate the important source(s) (can be one or multiple) that have helped to form your image of Qingdao using number 1, 2, 3.... (1 represents the most important source).

- tourist brochures
- mass-media advertising campaigns
- travel agency staff
- the Internet
- word-of-mouth (friends, relatives)
- guidebooks
- news
- magazines
- documentaries and TV programs
- other sources (please note)_____

3. Please indicate the number of previous visits you have made to Qingdao.
 None _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 and 6+ _____

4. Please indicate your primary motivation for visiting Qingdao.
 (1) Business (2) Visiting friends and relatives (3) Entertainment and relaxation
 (4) Conference or Exhibition (5) Others _____

5. Please indicate the level of agreement concerning your attachment to Qingdao.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
Visiting Qingdao says a lot about who I am.						
I can identify easily with this destination.						
I get more satisfaction from visiting Qingdao than visiting any other destination.						
I enjoy doing the types of activities I do in Qingdao more than at any other destination.						

Section four: Your personal information

- 1. Gender:
- 2. Occupation:
- 3. Age: 18-24 []; 25-44 []; 45-54 []; over 55 []
- 3. Education: Less than high school []; High or professional school [];
College or university [] Post-graduate Studies []
- 5. Which country/province do you live?

青岛外来游客调查问卷

第一部分：请描述您对青岛的整体印象。

1. 当您考虑青岛为旅游目的地时，您的脑海中出现什么样的印象或者特征？
2. 您期望在青岛旅游期间体验到什么样的气氛或者心情？

第二部分：您对青岛具体事物的印象

1. 用√表示您对青岛以下项目的印象（从非常好、好、一般、不好、非常不好、不知道中**选出一个答案**），并在最后一栏中画○标明它们对于青岛做为旅游目的地是否重要。

	非常好	好	一般	不好	非常不好	不知道	重要的画○
1) 海鲜							
2) 住宿							
3) 购物场所							
4) 文化景点							
5) 高速公路							
6) 堵车							
7) 到达/离开青岛的航班时间							
8) 交通费用							
9) 公共交通							
10) 夜生活							
11) 放松的气氛							
12) 当地人							
13) 足球比赛							
14) 海滩							
15) 天气							
16) 绿地							
17) 广场							
18) 度假场所							
19) 风景							
20) 外国遗产景观							
21) 高尔夫场地							
22) 节庆活动							
23) 时装秀							
24) 建筑							
25) 花钱是否合算							
26) 卫生状况与清洁度							

2. 您对青岛的感觉，每行只选一个，在选中的内容上打√。青岛使您感觉

1. a 很振奋	b.比较振奋	c.既不振奋也无瞌睡感	d. 比较瞌睡	e. 很瞌睡
2. a.很激动	b.比较激动	c.既不激动也不沮丧	d. 比较沮丧	e. 很沮丧
3. a.很愉快	b.比较愉快	c.既无愉快感也无不愉快	d. 比较不愉快	e. 很不愉快
4. a.很放松	b.比较放松	c.既不放松也不紧张	d. 比较紧张	e. 很紧张

第三部分：哪些因素影响您对青岛的印象？

1. 以下项目在形成您对青岛的印象中具有何种重要程度？

	非常不重要	有些不重要	既非重要也非不重要	有些重要	非常重要	不知道
德国遗产						
啤酒节						
2008 奥运会						

2. 请在[]中用√选出哪些信息来源帮助形成了您对青岛的印象？并在___上用 1, 2, 3, 4...标出所选的这些信息来源对形成您青岛印象的重要程度。1 代表最重要的来源，2 代表第二重要，依次类推。

- [] ___ 旅游手册
- [] ___ 大众媒体广告
- [] ___ 旅行社工作人员
- [] ___ 互联网
- [] ___ 口口相传(亲戚/朋友)
- [] ___ 旅行指南
- [] ___ 新闻
- [] ___ 杂志
- [] ___ 纪录片和电视节目
- [] ___ 其他(请注明) _____

3. 您以前来过青岛几次？请打√

没有	1 次	2 次	3 次	4 次	5 次	6 次及 6 次以上

4. 您此次来青岛的主要动机，请打√

- 1[] 经商 2[] 访问亲友 3[] 娱乐放松 4[] 参加会议/展览 5[] 其他

5. 您对青岛的依恋程度。

	非常不同意	不同意	中立	同意	非常同意	不知道
来青岛旅游很大程度上体现我的个人价值。						
我能很轻松辨认出青岛。						
游览青岛比游览其它地方更容易让我满足。						
比起其它旅游地，我更喜欢在青岛从事的各种旅游活动。						

第四部分：个人信息，在相应的空格中打√。

- 1. 性别： 男 [] ； 女 [] 2. 年龄： 18-24 [] ； 25-44 [] ； 45-54 [] ； 55 或以上 [] ；
- 3. 教育程度： 低于中学 [] ； 中学或职校 [] ； 专科或本科 [] ； 硕士及以上学历 []
- 4. 职业： _____ 5. 您的居住地？ _____ 省

청도의 레유람객조사문답지

제 1 부분: 청도에 대한 귀하의 총적인 인상은 어떠한가요?

1. 청도를 관광목적지로 생각했을 때 귀하의 머리속에 떠오르는 인상 혹은 특징은 무엇인가요?
2. 청도관광기간 어떠한 기분 혹은 심정을 체험하고 싶은지요?

제 2 부분: 청도의 구체적 사물에 대한 귀하의 인상

1. 청도의 하기 내용에 대해√표식을 해주시고(아주좋다,좋다,일반,나쁘다,아주 나쁘다.모르겠다.),제일 마지막 칸에 관광목적지로서의 청도에 중요한지 그여부를 ○표로 기입해 주십시오.

	아주 좋다	좋다	일반	나쁘다	아주 나쁘다	모르겠다	중요하면 ○
1) 해산물							
2) 숙박							
3) 쇼핑							
4) 문화관광지							
5) 고속도로							
6) 차량정체상황							
7) 도착/출발 항공시간							
8) 교통비용							
9) 대중교통							
10) 방문화							
11) 평온한 기분							
12) 현지인							
13) 축구시합							
14) 해변가							
15) 날씨							
16) 녹지							
17) 광장							
18) 휴양지							
19) 풍경							
20) 외국유산경관							
21) 골프장							
22) 축제							
23) 패션쇼							
24) 건축							
25) 비용이 합리 한지 불합리한지							
26) 위생상황과 청결정도							

青島外来観光客のアンケート調査

一、青島に対するイメージをご記入ください。

1. 青島を旅の目的地とされる場合、頭にどんなイメージが浮き出しますか？

2. 青島のご観光中ご希望の雰囲気は何ですか？

二、青島の具体事情に対するイメージをご記入ください。

1. 以下項目への印象に○を付けてください。（とても良い、良い、普通、良くない、悪い、不知の中から一つ選んで下さい）、それに最後の空欄の中にその重要程度をご記入ください。

	とても良い	良い	普通	良くない	悪い	不知	重要なのは○を記入
1) 海鮮							
2) 宿泊							
3) ショッピング場所							
4) 文化スポット							
5) 高速道路							
6) 交通渋滞							
7) 青島着/発のフライト時刻							
8) 交通費							
9) 公共交通							
10) ナイトライフ							
11) 気軽な雰囲気							
12) 当地人							
13) サッカー試合							
14) 砂浜							
15) 天気							
16) 緑地							
17) 広場							
18) 休暇場所							
19) 風景							
20) 外国遺産							
21) ゴルフ場							
22) イベント							
23) ファッションショー							
24) 建築							
25) 物価							
26) 衛生状況							

3. 青島への感覚（毎行は一つだけ）。選んだ内容に○を付けてください。

1. a.とても興奮 b.興奮 c.興奮でもない眠くもない d.眠い e.とても眠い
2. a.とても感動 b.感動 c.感動でもない気落ちもない d.気落ちる e.とても気落ちる
3. a.とても楽しい b.楽しい c.楽しくもない楽しくなくもない d.楽しくない e.全く楽しくない

4. a.とてもリラックス b.リラックス c.リラックスでもない緊張でもない d.緊張 e.とても緊張

三、青島を観光地と計画する際、参考にされた情報源は何ですか？

1. 以下の項目はあなたの青島印象作りでどんな重要程度を持っていますか？

	非常に不重要	不重要	やや重要	重要	非常に重要	不知
ドイツ遺産						
ビール祭り						
2008年オリンピック						

2. 以下の[]から、青島への印象を参考にされた情報源に○を付けて選んでください。それに___の上に1、2、3、4...を使って、選んだ要素は青島印象作りの重要程度をご記入ください。(1は最も重要な要素を代表する、2は次重要、以下類推)

- [] ___ 旅行パンフレット
- [] ___ マスコミ
- [] ___ 旅行社のスタッフ
- [] ___ インターネット
- [] ___ 口伝(親類/友人)
- [] ___ 旅行ガイドブック
- [] ___ ニュース
- [] ___ 雑誌
- [] ___ 記録映画とテレビプログラム
- [] ___ その他(ご記入)_____

3. 以前青島は何回目ありますか？ ○を付けてください。

無い	1回	2回	3回	4回	5回	6回又6回以上

4. 今回青島訪問の目的は何ですか。○を付けてください。多選択でもいいです。

- []ビジネス []親友訪問 []娯楽 []会議/展覧参加 []その他

5. 青島への未練度。

	反対	不賛成	中立	賛成	大賛成	不知
青島への旅は個人価値が体现できる。						
気軽に青島を見つけることができる。						
他の観光地より青島の旅はもっと満足させられる。						
他の観光地より青島での旅行活動がもっと気になる。						

四、個人情報、相応しい空欄の中に○を付けてください。

- 1. 性別: 男 []; 女 [] 2. 年齢: 18-24 []; 25-44 []; 45-54 []; 55 或は以上 [];
- 3. 教育レベル: 小学校 []; 中学校 []; 専門学校或は大学 []; 博士又それ以上 []
- 4. 職業:

Appendix II: Questionnaires for Residents of Qingdao (English, Chinese)

Questionnaires for Residents of Qingdao

Section one: Please feel free to describe your overall image about Qingdao

1. What images or characteristics come to mind when you think of Qingdao as a tourism destination?

2. How would you describe the atmosphere or mood of Qingdao?

Section two: Perceived images of Qingdao based on the following attributes

1. Please indicate the importance of the following items associated with your image of Qingdao and the quality of provision of how important are each of these items to you?

	Very good	Good	Neutral	poor	Very poor	Don't know	Important (Y/N)
1) Seafood							
2) Accommodations							
3) Shopping variety							
4) Shopping centers							
5) Highway system							
6) Traffic congestion							
7) Airline schedules							
8) Transportation cost							
9) Public transport							
10) Night life activities							
11) Relaxing atmosphere							
12) Local people							
13) Football games							
14) Beaches							
15) Weather							
16) Greenery space							
17) Squares							
18) Resorts							
19) Scenery							
20) Ethnic attractions							
21) Golf courses							
22) special events							
23) Fashion show							
24) West-oriented building							
25) Value for money							
26) Standard hygiene and cleanliness							

2. Please indicate your level of agreement about the following items associated with your perception of Qingdao?

	Extremely	Very	Neutral	Very	Extremely	
Arousing						Sleepy
Exciting						Gloomy
Pleasant						Unpleasant
Relaxing						Distressing

Section three: Factors influencing image formation

1. Please indicate the level of importance of the following items in forming your image of Qingdao.

	Very unimportant	Unimportant	Neither unimportant nor important	Important	Very important	Don't know
German heritage						
Beer festival						
Olympic Games						

2. Please indicate the most important source(s) (can be one or multiple) that help to form your image of Qingdao using number 1, 2, 3.... (1 represents the most important source).

- tourist brochures
- mass-media advertising campaigns
- travel agency staff
- the Internet
- word-of-mouth (friends, relatives)
- guidebooks
- news
- magazines
- documentaries and TV programs
- other sources _____

3. Please indicate the level of agreement concerning your attachment to Qingdao.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
I feel Qingdao is part of myself, and I am part of Qingdao.						
I have many relatives and friends living in Qingdao.						
I will miss Qingdao if I leave it.						
I am very happy to be living in Qingdao.						
I don't want to live anywhere other than Qingdao.						

Section four: Your personal information

- 1) Gender: Male []; Female []
- 2) Age: 18-24 []; 25-44 []; 45-54 []; over 55 [];
- 3) Education: Less than high school []; High or professional school []; College or university []; Post-graduate school []
- 4) Occupation _____
- 5) How many years have you lived in Qingdao?

青岛居民调查问卷

第一部分：请描述您对青岛的整体印象。

1. 当您考虑青岛为旅游目的地时，您的脑海中出现什么样的印象或者特征？

2. 您感觉青岛具有什么样的气氛？

第二部分：您对青岛具体事物的印象

1. 用√表示您对青岛以下项目的印象（从非常好、好、一般、不好、非常不好、不知道中**选出一个答案**），并在最后一栏中画○标明它们对于青岛为旅游目的地是否重要。

	非常好	好	一般	不好	非常不好	不知道	重要的画○
1) 海鲜							
2) 住宿							
3) 购物场所							
4) 文化景点							
5) 高速公路							
6) 堵车							
7) 到达/离开青岛的航班时间							
8) 交通费用							
9) 公共交通							
10) 夜生活							
11) 放松的气氛							
12) 当地人							
13) 足球比赛							
14) 海滩							
15) 天气							
16) 绿地							
17) 广场							
18) 度假场所							
19) 风景							
20) 外国遗产景观							
21) 高尔夫场地							
22) 节庆活动							
23) 时装秀							
24) 建筑							
25) 花钱是否合算							
26) 卫生状况与清洁度							

2. 您对青岛的感觉，每行只选一个，在选中的字母上打√。青岛使您感觉

1. a. 很振奋 b. 比较振奋 c. 既不振奋也无瞌睡感 d. 比较瞌睡 e. 很瞌睡
2. a. 很激动 b. 比较激动 c. 既不激动也不沮丧 d. 比较沮丧 e. 很沮丧
3. a. 很愉快 b. 比较愉快 c. 既无愉快感也无不愉快 d. 比较不愉快 e. 很不愉快
4. a. 很放松 b. 比较放松 c. 既不放松也不紧张 d. 比较紧张 e. 很紧张

第三部分：哪些因素影响您对青岛的印象？

1. 以下项目在形成您对青岛的印象中具有何种重要程度？

	非常不重要	不重要	既非重要也非不重要	重要	非常重要	不知道
德国遗产						
啤酒节						
2008 奥运会						

2. 请在 [] 中用√选出哪些信息来源帮助形成了您对青岛的印象？并在___上用 1, 2, 3, 4... 标出所选的这些信息来源对形成您青岛印象的重要程度。1 代表最重要的来源，2 代表第二重要，依次类推。

- [] ___ 旅游手册
- [] ___ 大众媒体广告
- [] ___ 旅行社工作人员
- [] ___ 互联网
- [] ___ 口口相传(亲戚/朋友)
- [] ___ 旅行指南
- [] ___ 新闻
- [] ___ 杂志
- [] ___ 纪录片和电视节目
- [] ___ 其他(请注明)_____

3. 您对青岛的依恋程度.

	非常不同意	不同意	中立	同意	非常同意	不知道
我感觉青岛是我的一部分，我也是它的一部分。						
我在青岛有很多亲戚、朋友。						
离开青岛我会很想念它。						
我很愿意住在青岛。						
我不想去青岛以外的其它地方住。						

第四部分：个人信息，在相应的空格中打√。

- 1. 性别 _____
- 2. 年龄：18-24 []； 25-44 []； 45-54 []； 55 或以上 []；
- 3. 教育程度： 低于中学 []； 中学或职校 []； 专科或本科 []； 硕士及以上学历 []
- 4. 职业 _____
- 5. 您已经在青岛住了 _____ 年

**Appendix III: Number of Significant Differences Found
by Mann-Whitney *U* Tests and T-tests**

Table 4.11 Comparison between Cognitive Images of Visitors and Residents	8 differences found (in common), 2 additionally differences found by Mann-Whitney <i>U</i>
Table 4.12 Comparison between Affective Images of Visitors and Residents	Same results: 2 differences found (in common)
Table 5.1 Influence of Sex on Cognitive Images of Visitors	1 difference found (in common), 2 additionally differences found by T-test
Table 5.2 Influence of Sex on Affective Images of Visitors	Same results: no differences found
Table 5.3 Influence of Education on Cognitive Images of Visitors	Same results: 1 difference found (in common)
Table 5.4 Influence of Education on Affective Images of Visitors	Same results: no differences found
Table 5.13 Influence of Previous Travel Experience on Cognitive Images of Visitors	1 difference found (in common), 1 additionally difference found by Mann-Whitney <i>U</i>
Table 5.14 Influence of Previous Travel Experience on Affective Images of Visitors	Same results: no differences found
Table 6.1 Influence of Sex on Cognitive Images of Residents	5 differences found (in common), 1 additionally difference found by Mann-Whitney <i>U</i>
Table 6.2 Influence of Sex on Affective Images of Residents	Same results: 1 difference found (in common)
Table 6.3 Influence of Education on Cognitive Images of Residents	8 differences found (in common), 1 additionally difference found by Mann-Whitney <i>U</i>
Table 6.4 Influence of Education on Affective Images of Residents	Same results: 2 differences found (in common)

Twelve groups of Mann-Whitney/T-test results: seven groups have the same results

Appendix IV: Number of Significant Differences Found

by Kruskal-Wallis Tests and Anova

Table 5.5 Influence of Age on Cognitive Images of Visitors	5 differences found (in common), 1 additionally difference found by Anova
Table 5.7 Influence of Age on Affective Images of Visitors	Same results: no differences found
Table 5.8 Influence of Occupation on Cognitive Images of Visitors	4 differences found (in common), 1 additionally difference found by K-W, and 1 additionally difference found by Anova
Table 5.10 Influence of Occupation on Affective Images of Visitors	1 additionally difference found by K-W, none by Anova
Table 5.11 Influence of Place of Residence on Cognitive Images of Visitors	Same results: 1 difference found (in common)
Table 5.12 Influence of Place of Residence on Affective Images of Visitors	Same results: 1 difference found (in common)
Table 5.15 Influence of Primary Motivation on Cognitive Images of Visitors	4 differences found (in common), 1 additionally difference found by Anova
Table 5.17 Influence of Primary Motivation on Affective Images of Visitors	3 differences found (in common), 1 additionally difference found by K-W
Table 5.19 Influence of Most Important Source Used on Cognitive Images of Visitors	4 differences found (in common), 1 additionally difference found by K-W, and 2 additionally differences found by Anova
Table 5.20 Influence of Most Important Source Used on Affective Images of Visitors	Same results: 1 difference found (in common)
Table 5.21 Influence of Number of Sources Used on Cognitive Images of Visitors	Same results: 5 differences found (in common)
Table 5.23 Influence of Number of Sources Used on Affective Images of Visitors	Same results: no differences found
Table 6.5 Influence of Age on Cognitive Images of Residents	11 differences found (in common), 5 additionally differences found by K-W
Table 6.7 Influence of Age on Affective Images of Residents	2 differences found (in common), 1 additionally difference found by Anova
Table 6.9 Influence of Occupation on Cognitive Images of Residents	11 differences found (in common), 1 additionally difference found by K-W, and 1 additionally difference found by Anova

Table 6.11 Influence of Occupation on Affective Images of Residents	Same results: 2 differences found (in common)
Table 6.13 Influence of Length of residence on Cognitive Images of Residents	Same results: 12 differences found (in common)
Table 6.15 Influence of Length of Residence on Affective Images of Residents	1 difference found by K-W, none by Anova
Table 6.16 Influence of Most Important Source Used on Cognitive Images of Residents	16 differences found (in common), 1 additionally difference found by K-W
Table 6.18 Influence of Most Important Source Used on Affective Images of Residents	Same results: 4 differences found (in common)
Table 6.20 Influence of Number of Sources Used on Cognitive Images of Residents	Same results: 12 differences found (in common)
Table 6.22 Influence of Number of Sources Used on Affective Images of Residents	1 difference found by K-W, none by Anova

Twenty-two groups of Kruskal-Wallis/Anova tests: ten groups have the same results