

**Analysis of adventure tourist motivation:
The case of China-born international
students in New Zealand universities**

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A dissertation submitted to
Auckland University of Technology
in partial fulfillment of the requirements for the degree of
Master of International Hospitality Management (MIHM)

2014

School of Hospitality and Tourism
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ATTESTATION OF AUTHORSHIP

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), no material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or their institution of higher learning.”

Signature of Candidate:.....

ACKNOWLEDGEMENT

I would like to take this opportunity to thank many people who contributed to this study. First and foremost, I would like to present my sincere appreciation to my supervisor Dr Charles Johnston, for his constant support, guidance and encouragement. His knowledge, feedback, patience and guidance not only helped me in fulfilling my study, but also offered me precious study experience in New Zealand.

I would like to thank Mrs Susan Moyle and Mr John Moriarty for their numerous and detailed proofreading of the manuscripts for this study. Their assistance and patience have been invaluable to the success of this study.

Finally, I want to thank my parents for all that they have done for me. Thank them for encouraging me to realize my dream of studying in New Zealand, and for their boundless love and support behind the scenes. I extend my sincerest thanks and appreciation to my husband (Tao Song). Thank you for discussing the dissertation with me not only in the content but also in the format. I also would like to thank my friends for their understanding and endless support. Additionally, I appreciate all Chinese overseas students for participating in this survey. Thanks a million for their trust in me and their participation in this study.

ABSTRACT

Despite the rapid increase of inbound tourism in New Zealand, the essence of its overseas Chinese student market has never been sufficiently studied. In response to this gap, the aim of this research is to discover the motivations of China-born international university students to experience adventure recreation activities in New Zealand. This study emphasises the importance of tourist motivations in destination planning for the Chinese overseas student market. A significant aspect of this probe is a demonstration of the application of tourist motivation theories in tourism industry practice. To develop insight into the Chinese overseas student market, the dominant focus of this study is to develop a useable model of Chinese student motivations to choose New Zealand as an adventure tour destination.

The investigation utilises a quantitative methodology to determine China-born international university students' motivations to engage in New Zealand adventure tourism. A self-administered questionnaire was used to obtain the data. With limited resources of time and money, a sample of 153 respondents was drawn from Chinese overseas university students studying in New Zealand; the survey was conducted in the four weeks from 16th May to 12th June 2014 during daylight hours. Exploratory factor analysis conducted to validate the adventure travel motivations. A suite of independent *t* tests and one-way ANOVA tests were adopted to explore the influence of demographics and travel characteristics. The items “achievement and risk taking”, “ego enhancement”, “novelty and knowledge seeking” and “exciting experience” were found to be the most significant motivators related to the reasons for Chinese students choosing to participate in adventure activities in New Zealand.

To date no other studies have investigated the motivations of China-born international university students to choose New Zealand as an adventure destination. The findings of this research can be used by the New Zealand tourism sector to market adventure travel experiences to Chinese overseas students and to highlight how the New Zealand

tourism sector caters to these primary motivations. This will enable the sector to deliver better quality service and provide unique tourist experiences. Recommendations for future studies are presented.

Keywords: China-born international university students; adventure motivation; New Zealand; adventure tourism

CHAPTER 1 : INTRODUCTION

This study considers the motivations of China-born international university students to engage in adventure tourism in New Zealand. The international education market has developed rapidly throughout the world. By nationality, Chinese students make up the largest group of overseas students studying in New Zealand. Not only do Chinese international students play an increasing role in the New Zealand education sector, but they also bring a significant economic benefit to the local tourism industry. The importance of this student tourism market ought to be considered by New Zealand tourism administrators and operators. New Zealand enjoys enormous popularity throughout the world, as it has various kinds of adventure recreation activities that successfully attract a great many tourists, including residents, in different seasons. In New Zealand, adventure tourism is recognised as a sector that is expanding quickly (Bentley, Page & Macky, 2007).

Through studying the motivations of China-born international university students to engage in adventure recreation, this investigation provides valuable information that can be used by New Zealand tourism marketers, as the China-born international university student market has a crucial influence on the New Zealand tourism sector. As Zhang and Brunton (2007) mentioned, China-born international students have become the largest group of overseas students studying in New Zealand. This study concentrates mainly on participants' travel characteristics in terms of their motivations to take part in recreation adventure activities. These motivations are derived from the field of psychology, and further identify personal psychological states of the target group. Clearly understanding the motivations to engage in adventure tourism activities of Chinese international university students is the key to ensuring that New Zealand adventure operators launch various kinds of attractive activities and tourism administrators implement effective and efficient marketing strategies for tourist destinations.

1.1 The Significance of the Study

In the literature on adventure tourism, most research pays close attention to the relation between environmental preference and the personal features of adventurers; such as their demographic backgrounds, recreation motivations, personal adventure experience, and skill levels. Most studies select only one, or just a few, adventure activities to analyse. In the current study, the investigator seeks to provide more detailed information about adventure recreation in New Zealand and insights into what motivates all Chinese students to participate in risky recreation. Moreover, the study also enables academics, New Zealand tourism administrators and adventure operators to understand the motivation of adventure recreation enthusiasts in New Zealand. Useful outcomes can be revealed via an analysis of the participants' demographics, individual adventure behaviours and recreational motivations, which will assist the New Zealand tourism industry to initiate marketing plans for the Chinese overseas student market. Adventure tourism products in New Zealand could also be improved and developed to serve this particular tourist segment.

1.2 The Aim and Objectives of the Study

Berkman and Gilson (1978) claimed that motivation was only one factor in explicating tourist behaviour. Simultaneously, motivation was also deemed to be one of the most dominating variables, as it is a compelling and impelling driver of behaviour. The aim of this study is to understand China-born international university students' adventure travel motivations in New Zealand. The research objectives principally focus on the definition of tourist adventure motivation. More specifically, the study objectives are:

1. To discover where the main travel information sources gained for decision-making on New Zealand adventure trip;
2. To investigate the ranks of the term "recreational adventure activities" based on the mean scores among China-born international university students;

3. To identify China-born international university students' motivations to experience recreational adventure activities in New Zealand;
4. To examine how China-born international university students' motivations differ with their differing demographic variables and adventure travel characteristics.

1.3 The Methodology Applied in the Study

This survey adopts a quantitative method to determine Chinese international university students' adventure motivations in New Zealand. It applies a questionnaire as the instrument to collect the necessary basic data. The target population is China-born international university students who have experienced recreational adventure activities in New Zealand. Limited by the time and money available for the study, the sample for the study was 153 Chinese overseas students. This sample was randomly selected at universities and popular tourist attractions. The questionnaire was available only in an English version, thus, the participants must have achieved an IELTS score above 5.5, which is the English language prerequisite to enter any university in New Zealand. After the data collection, a statistical computer software package (SPSS) was employed for the data processing. Descriptive analysis, factor analysis, independent *t* test and one-way ANOVA analysis were the methods utilised.

1.4 The Structure of the Study

This dissertation is made up of six chapters. The outline of the dissertation's structure follows. Chapter two outlines the background of the research, and is divided into two sections. The first section describes the current position of New Zealand tourism, including the development of tourism for the Chinese tourist. Adventure tourism, which is recognised as a distinctive characteristic of New Zealand tourism, is introduced. The second part of the chapter introduces Chinese overseas students in New Zealand. It explicates several main reasons why an increasing number of Chinese students choose to study abroad.

A comprehensive literature review is presented in Chapter three. A great many existing studies provide the conceptual foundation to explain the definition of tourist motivation, student travel motivation (particularly Chinese students' motivation), adventure tourism and adventurers' motivation. Among these, adventure recreation and the motivation of adventurous tourists' are primarily reviewed through the past theories. Many studies have been conducted to identify tourist motivation in adventure tourism and safety issues in adventure activities, but few scholars have focused on discovering students' adventure motivation, especially Chinese students. Furthermore, a gap is identified in previous studies concerning research into the motivation of Chinese overseas students who engage in recreational adventure activities in New Zealand.

In Chapter four a detailed description of the research methodology is presented. The sample selection procedure, questionnaire design, data collection and analysis are all explained. In the discussion of the design of the questionnaire, the structure of the scales, the selection of questions and the time length for conducting the survey are identified. Some criteria and requirements of the statistical methods are interpreted in detail, since they are essential for the data analysis. This chapter also mentions some ethical issues that could arise during the research, and relevant approaches to solutions are prepared prior to conducting the fieldwork.

Chinese participants' demographic information, their recreational adventure behaviours and the investigation questions are examined in Chapter five. The main information sources used to make decisions about New Zealand adventure trips are presented, arranged from high to low by the proportion of respondents who have used these sources. This study also explores China-born overseas university students' understanding of the term "recreational adventure activities". Then, through further analysis, five primary factors are determined. Chapter five also gives a detailed description of Chinese overseas students' adventure motivation in New Zealand, compared with Chinese tourist motivation at the same destinations and other tourists'

motivation to participate in particular recreational adventure activities. Through comparison with the past literature, some new findings are discovered in New Zealand adventure tourism that makes a contribution to the theoretical knowledge and practical activities. According to the data analysis, the cognition of China-born international university students' adventurous motivation makes a new discovery, filling in gaps in the empirical research and psychological theory of adventure tourist motivation in New Zealand.

The final chapter presents the conclusion, summarising the outcomes from this research and pointing out the delimitations and limitations of the study, as well as the implications for future research. It reports the contributions of this study, to both the theoretical environment and practical perspectives of the tourism industry. The implications of the findings are addressed in order to offer insight for further research.

CHAPTER 2 : BACKGROUND

Despite New Zealand presenting tourists with a well-marketed clean, green and safe image, another famous and widely known feature of New Zealand is its variety of recreational adventures. This study investigates the motivations for adventurous travel by China-born overseas students studying at a New Zealand university. In the first section of this chapter, New Zealand's unique cultural and natural tourism will be introduced in detail. The chapter presents the general tourist motivations of Chinese visitors in New Zealand drawing from the existing literature. The second section introduces another major characteristic – adventure tourism. It describes the rapid growth of adventure tourists, the variety of risky activities available to them and safety management in New Zealand.

2.1 New Zealand Tourism

2.1.1 New Zealand from the Chinese Tourists' Perspective

In 1999, Tourism New Zealand employed the “100% Pure New Zealand” brand to advertise around the world (Morgan, Pritchard, & Piggott, 2002). The brand communicated an image of a pollution-free, clean-and-green destination on websites, in movies, on postcards and through other advertising mediums (Bell, 2008). In 1997, New Zealander Niki Caro directed the feature movie *Memory and Desire* which represented the myth of a pure, wild and “natural” New Zealand (Leotta, 2012). It showed audiences that New Zealand is a small country, located in the south-western Pacific Ocean, having a “real” place and imaginary fantasyland. In 2003, the movie adaptation of *Lord of the Rings* repositioned New Zealand as Middle Earth. This Middle Earth tourism marketing successfully disseminated a message about the glorious New Zealand landscape that dramatically and distinctively differed from the landscape of other countries. Soon afterwards, the film adaptation of *The Hobbit* promoted tourism development for New Zealand in the same way, attracting a large number of fans to New Zealand. The phrases “clean-and-green”, “100% Pure”,

“fantasy landscape”, “tropical forest” and “geothermic volcanic scenic areas” are strongly engraved in many tourists’ minds (Cone, 2005; Ryan & Mo, 2001; Zhao, 2006). In addition, Māori cultural tourism has also made a considerable contribution to the development of the New Zealand tourism industry. At Māori cultural attractions, Māori people guide visitors to the terraces, performing traditional dances and singing Māori songs for them. Māori arts and crafts are bought by tourists as treasured mementos (Condevaux, 2009). The novel and unique culture is popular with tourists, and has always been a significant representative feature of New Zealand tourism.

Kim, Guo and Agrusa (2005) and Weiler and Yu (2006) conducted research to study the motivation of Chinese tourists to travel to different countries. They found that the dominating reasons that motivated Chinese people to visit a place are the natural wonders and the scenic beauty of the destination. Similarly, from their examination of Chinese tourist travel experiences in New Zealand, Cone (2005), Zhao (2006) and Ryan and Mo (2001) found that the key destination attributes were scenery, natural beauty and the “clean and green” environment. Becken (2003) and Coventry (2008) added that the element of security was also a crucial consideration.

Most of the articles regarding the Chinese outbound market have discovered that exploring various cultural and historical resources, which contain local customs, are where Chinese tourists’ greatest interest lies (Becken, 2003; Li, Lai, Harrill, Kline & Wang, 2010; Weiler & Yu, 2006). The empirical research of Ryan and Mo (2001) confirmed that Chinese visitors were extremely satisfied with their experience of Māori culture in New Zealand. Based on their feedback, this experience enabled them to learn novel customs, a unique culture and a different history.

As well as experiencing Māori culture, as Ryan and Mo’s (2001) study reported, Chinese tourists are highly satisfied with sightseeing in nature-based settings, such as visiting national parks, gardens and farms. City tours and boat cruises in New Zealand were also found to be popular activities. Ryan and Mo (2001) found that although

younger visitors were more interested in active tourism, they all received a high level of enjoyment from the natural scenery in New Zealand. Chan (2009) indicated that sightseeing, having a tour of a botanical garden, visiting historic sites, shopping and participating in Māori cultural performances were the primary activities conducted in New Zealand. The Ministry of Tourism (2009) reported, however, that trekking and walking, visiting viewing platforms, geothermal/volcanic/cultural attractions and other land-based sightseeing were the top tourist activities in New Zealand.

2.1.2 Adventure Tourism in New Zealand

In the tourism industry, adventure tourism is recognised as a sector that is expanding rapidly. Around the world, one of the reasons why New Zealand attracts a great number of tourists and local residents to visiting year round (i.e. in different seasons) is the presence of destinations that include a variety of adventure sports. As Bentley, Page and Edwards (2008) describe, “no international destination is as closely associated with adventure tourism activity as New Zealand”. Bentley, Page and Laird (2000) demonstrated that data from the International Visitor Survey 1992-1993 showed that approximately 10% of visitors who travelled in New Zealand engaged in recreational adventure activities. In that period, jet boating, bungy jumping, scenic flights, mountain recreation, and white-water rafting were the most popular outdoor adventure activities. In 1997, 1.3 million international tourists participated in adventure activities. Between 1997 and 2002 the per annum growth rate was 6%, and the figure of 1.7 million visitors in 2002 illustrates a rapid expansion in visitors undertaking recreational adventure activities. Five years after that survey, New Zealand as a destination attracted nearly 2.2 million tourists annually, and a large proportion of these tourists took part in various forms of active adventure activities (Ministry of Tourism, 2007). For instance, every year there are a number of overseas visitors; ranging from 200,000 to 250,000; who experience the speed of jet boating (Ministry of Tourism, 2007). Adventure tourist operators launched a wide variety of tourist-oriented activities. Simultaneously, activities were marketed with a range of

risk, from *soft* to *hard*, and requiring a degree of effort ranging from *passive* to *highly active* (Bentley, Page & Edwards, 2008).

The scope of activities in the New Zealand adventure tourism industry was divided into three groups by Bentley and Page (2007); air-based, water-based, and land-based activities. Aviation-based adventure activities consist of ballooning, paragliding, parasailing, hang-gliding, scenic flights and sky diving. Marine adventure recreation activities include sea kayaking, white water kayaking, white water rafting, black water rafting, jet boating, wake boarding, jet skiing, surfing and eco-tourism. Mountaineering, tramping, mountain biking, quad biking/4WD, horse riding, rock climbing, snow sports, bungee jumping, abseiling, canyoning/caving and eco-tourism make up the land-based activities.

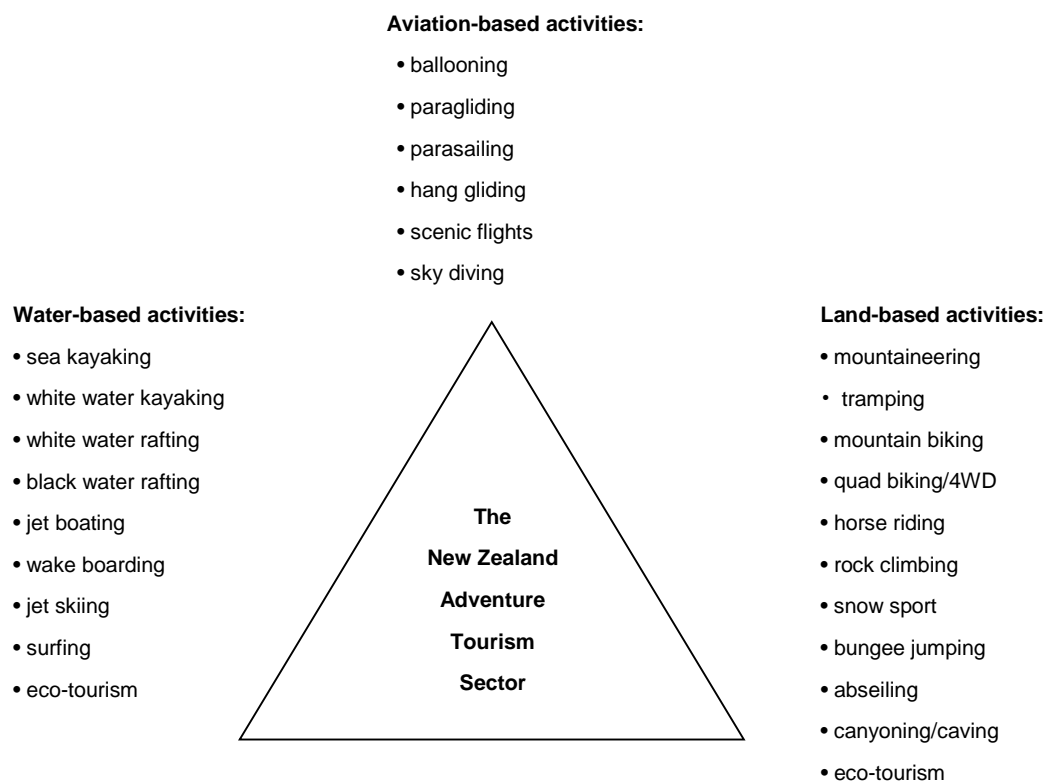


Figure 1 The scope of activities in the New Zealand adventure tourism industry

Source: Bentley and Page (2007)

Queenstown is New Zealand's self-proclaimed adventure tourism capital. It is a representative destination launching adventure tourism activities (Bentley, Page & Edwards, 2008). Queenstown has had considerable success in responding to increased interest from adventurous enthusiasts, and has positioned itself as "the adventure capital of the world" (Cater, 2006). It is worth recognising that, as a well-known tourist destination, Queenstown not only has scenic splendour, but also a plethora of activities, such as bungy jumping, paragliding and jet boating.

2.1.3 Safety in New Zealand Adventure Tourism

Much of the research on tourism has found matters of well-being and safety to be significantly under-rated issues. Bentley, Page and Laird (2000) carried out a countrywide survey to explore how New Zealand adventure operators could assess client injuries from their own experience. Adventure companies in New Zealand are almost all small businesses (Cameron, Massey & Tweed, 1997), and the adventure activities they provide to participants are characteristically located in remote rural areas, with relatively scenic backdrops (Bentley, Page & Walker, 2004). It was pointed out by Bentley, Meyer, Page and Chalmers (2001) that cycling and horse riding had the highest injury counts of commercial tourist adventure activities in New Zealand. Despite this, the independent adventure activities that most frequently resulted in death were mountaineering and skiing. Bentley et al. (2001) found that, during the period from 1982 to 1996, 17% of all injuries reported in tourism activities in New Zealand involved injury to overseas tourists, and 22% of all fatalities occurring in tourism activities in New Zealand in that same period were of overseas tourists. By comparison, the injury-incidence rate of injuries requiring hospitalisation (approximately 8/100,000 of all overseas tourists) was lower than the rate of injuries from motor vehicle accidents that required hospitalisation (approximately 12 /100,000 of all visitors). In New Zealand, operators of small tourism adventure firms are required to master safety systems, to have systems in place to mitigate risk and to have contingency plans to cater for client injury (Bentley et al., 2004). Bentley et al.

(2004) stated that 30 adventure operators indicated that they had carried out the principal safety measures, including having distinctive operational guidelines, safe operating strategies and regulatory codes of practice. In addition, 16 small firms indicated they had risk assessment procedures, while 34 firms running adventure tourism businesses paid more attention to professional staff selection and training, which they viewed as a preventive measure. Providing security training prior to, or during, adventure activities and regular equipment checks were also emphasised by the other 45 adventure providers.

2.2 China-born International University Students in New Zealand

The new wave of Chinese students considering study in well-known developed countries could not only gain advanced knowledge, but could also greatly assist in their country's future development (Hayhoe & Sun, 1989; Pang & Appleton, 2004). Zweig, Chen and Rosen (2004) found that FFP students returned to China when they graduated and their primary degrees from Western countries advanced management ideas and technological development, both of which China required, as well as their degrees assisting the graduates in gaining immediate employment in large enterprises. They were often regarded as treasures in the company and were rewarded with high salaries (Zweig et al., 2004). Therefore, the majority of Chinese students agreed that a degree from overseas is deemed to be extremely valuable in China, with a high salary and preferential treatment being possible for graduates. This educational goal is viewed as one of the reasons why an increasing number of Chinese students prefer to study abroad. In addition, China is a member state of the World Trade Organization (WTO) and English is gradually becoming the primary foreign language in international trade and commerce. Gaining a sound mastery of the English language is not only about communicating with individuals from different cultural backgrounds, but also about working and living anywhere around the world. In 1978 the Chinese government undertook a number of open door policies to encourage its people to broaden their horizon overseas. Since the economic reform and the opening-up of the

Chinese economy it has developed rapidly and prosperously, with the living standards and quality of life of the Chinese people also having improved (Wang & Sheldon, 1995). At the same time, the interaction with the outside world has also increased as more and more Chinese students have chosen to travel abroad to seek, and learn from, new cultural experiences (Chiu, 1995).

Despite numerous researchers considering that overseas students studying in New Zealand can bring significant economic benefits that boost local economic development, there is little research uncovering the effect of this group on the New Zealand tourism industry. Every university in New Zealand provides non-lecture periods for students, such as winter and summer vacations, and study breaks in the middle of each semester. Thus, local students and international students both have time to travel to domestic destinations. In addition, the overseas university students are permitted by New Zealand immigration to find a part-time job for up to 20 hours per week. They can earn the money to fund their travel. Moreover, the expiry date of international students' visas is generally six months or a year from the date of issue. Students who study for a Bachelor's degree may have a student visa that is valid for three years, and which needs to be updated on the basis of specific immigration requirements, while post-graduate, or masters, students may have a visa valid for one or two years. Hence, compared with tourists who come from other countries, overseas students arguably have more than enough free time to take trips within the country, particularly if a student is also a travel enthusiast; such students may travel frequently to explore New Zealand in depth. Furthermore, they could potentially make significant contributions to boost the development of the local tourism market.

Ward (2001) found that an increasing number of full-fee-paying (FFP) students prefer to study in public tertiary institutions in New Zealand. He indicated that this group of students makes a valuable contribution to the field of education and to the general economy in New Zealand. During the period from 1994 to 2000 strong growth occurred in the number of FFP students in New Zealand. In 1994 the total number of

FFP students was 3,945, while in 2000 the number had grown to 11,498. Among these students, 79.1% came from Asian countries. By 2004, the number of FFP students had grown rapidly to 27,826, which easily surpassed the figure forecast by the New Zealand Ministry of Education. In 2004, 75.1% of all Asian students studying in New Zealand were of Chinese nationality. Over the period from 1999 to 2004, the number of students from China increased six-fold (Ministry of Education, 2005). In 2009, the overall number of China-born international students who enrolled in New Zealand universities, high schools and language academies was 9,789 (Ministry of Education, 2009).

CHAPTER 3: LITERATURE REVIEW

The number of Chinese international students has grown significantly since 2001(Cao & Zhang, 2012) and they represent a clearly identifiable market segment in New Zealand's tourism market. A review of the literature reveals that few studies have examined students' travel motivations, and even fewer have investigated the adventure tourism area. In particular, the travel motivation of Chinese-born international university students has been neglected. This chapter introduces the concepts of tourist motivation, student travel motivation, Chinese student travel motivation, and adventure tourism and adventure recreation motivation. Previous studies have revealed that motivation is generally explored in the academic discipline of psychology. In this research, the introduction of psychological explanations of motivation and its adaptation are discussed in the field of tourism. As stated above, student tourist motivation analysis can not only lead to a better understanding of their demands and behaviours, but can also predict student tourist decision-making procedures.

3.1 Tourist Motivation

Various definitions of motivation have been suggested in the psychology literature. Goodall (1988) suggested that the internal drive behind individual holiday motivation was to escape from work and routines, or to relieve everyday worries. In further research, he categorised motivations into several aspects; psychological or physical, prestigious or social, fantasy, and cultural. The simplest way to present the notion, however, is that, in order to satisfy an individual's need, an internal drive motivates him/her to explore relevant objects and information (Pizam & Mansfeld, 1999).

In the field of tourism research, travel motivations have become one of the focal points for tourism studies (Yousefi & Marzuki, 2012). Crompton (1979) identified two clusters of motives; socio-psychological motives, and cultural motives. Crompton

and McKay (1997) claimed that tourist motivation has been depicted as disequilibrium, or tension, within an individual, which is generated by inner psychological factors (i.e. needs and wants). Travel motivation is perceived as one of the most useful methods to understand tourists' demands and their behaviours, and to predict their decision-making procedures (Crompton, 1979; Yoon & Uysal, 2005). Based on the study of Hsu and Huang (2008), they identified that these socio-psychological motives include seven elements (escape, relaxation, self-exploration, prestige, enhancement of kinship, social interaction and regression), while cultural motives involved only novelty and education.

Push and *pull* motivation approaches have been widely accepted and verified via numerous tourism studies, and this concept has become a representative theory in the examination of tourist motivation (Crompton, 1979; Dann, 1977; Klenosky, 2002; Yuan & McDonald, 1990). The tourism literature has demonstrated that the theory of push and pull motivations is a well-proven method to comprehend and analyse various travel motivations of different traveller groups (Klenosky, 2002; You, O'Leary, Morrison & Hong, 2000). A number of researchers has examined push and pull factors in different settings, such as involving different nationalities, destinations and events. For instance, Dann (1981) interpreted the need for escape, the need for novelty, or the need for self-esteem as all being push factors. Push factors are deemed to be a desire for travel resulting from internal forces, while pull factors are the attractiveness of tourist destinations that motivate travellers to visit them, such as recreation facilities, cultural or natural attractions, or the friendliness of locals. Baloglu and Uysal (1996) stated that push factors consist of tourist education, social interactions, getting away, exploration and adventures, and physical or psychological health; whereas natural assets and artificial attractions at the tourism destination were viewed as pull factors.

A social psychological model of tourist motivation was proposed by Iso-Ahola (1982). This model emphasised the consideration of the personal and interpersonal

dimensions of tourists. The main forces in Iso-Ahola's model were summarised into four dimensions: (1) Escaping from the personal environment, such as one's own problems or troubles; (2) getting away from the interpersonal environment, such as colleagues, friends or family; (3) looking for personal intrinsic rewards, for example, self-achievement, or relaxing one's own body and mind; and (4) seeking interpersonal intrinsic rewards, for instance, meeting new people in the destination or in a travel group.

Besides the push and pull factors theory and Iso-Ahola's social psychological model, the Recreation Experience Preference (REP) scales are also recognised as a third commonly-used framework in tourist motivation studies (Wang & Walker, 2010). The REP scales have been frequently applied in outdoor recreation research to depict tourist motivations (Manfredo, Driver & Tarrant, 1996). A total of 21 significant motivations were identified by Driver, Tinsley and Manfredo (1991): Autonomy/leadership; equipment; family togetherness; learning; achievement/stimulation; risk-taking; new people; similar people; creativity; physical rest; physical fitness; escaping physical pressure; escaping personal-social pressures; escaping family; introspection; risk reduction; teaching/learning from others; enjoying nature; nostalgia; social security; and temperature.

3.2 A Model of Intrinsic and Extrinsic Motivations

Self-Determination Theory (SDT) distinguishes two important motivation types; intrinsic, and extrinsic motivations (Deci & Ryan, 1985). Intrinsic motivation describes the case that, because something (activity, experience, or other) is inherently enjoyable or interesting, a person is moved to engage with, or in, that thing. Intrinsic motivation arises from demands for autonomy, competence and relatedness, meanwhile fostering enjoyment and engagement. It is also closely linked with feelings of control (Biddle & Mutrie, 2001), or what is labelled "self-determination" (Deci &

Ryan, 1985). According to Reiss (2012), intrinsic motivation is commonly explicated as “doing something for its own sake”. He stated that intrinsic motivation, with its so-called non-survival needs or ego motives, involves autonomy, curiosity, play and competence.

Extrinsic motivation is interpreted as doing an activity because it results in a separable consequence (Deci & Ryan, 2000). As proposed under SDT (Deci & Ryan, 1985) and due to differing autonomous behaviours, the degree of extrinsic motivation is relatively varied; that is, extrinsic incentives (e.g., money, victory) undermine intrinsic interest. For instance, a student does his/her work well in order to attain the separable outcome of choosing a better career in future, which means that the person is extrinsically motivated by the instrumental value, rather than by the inherent interest of the work. Extrinsic motivation is a construct that pertains to the pursuit of an instrumental value (Reiss, 2012). Similarly, a student might finish some homework because he/she is afraid of his/her parents, thus completing the homework reluctantly in order to avoid parental sanctions. Hence, a person’s motivation for a given behaviour can be affected by a positive motivation, or by unwillingness. The former can lead to active personal commitment, while the latter will give rise to passive compliance.

3.3 Student Travel Motivation

Richards and Wilson (2003) indicated that the phenomenon of youth and student travelling has become global and fast growing. Biederman (2008) determined that it is necessary to understand young individuals’ tourist motivations, since their demand and desires could lead to specific travel behaviours; for instance, the recreation activities in which they participate, and the tourist attractions they select to visit. Ravon (1991) found that the primary motivations for students were low cost, entertainment, easy access to culture, and places of historic interest. Another study of student travel motivation was conducted by Hobson and Josiam (1992); they

researched the travel of US college students during their spring break. Differing from Ravon (1991), Hobson and Josiam (1992) argued in a different way that the major motivation was getting away and relaxing, and the trip expenditure was funded by students themselves. Clark (1992) reported, however, that these young tourists were mainly pursuing novel experiences. According to McLellan and Sirakaya's (1997) study, college students consider the important motivations were the cost of holidays, convenience, drinking opportunities, entertainment, recreation and sporting activities, local services and hospitality, and variety in their daily environment. In Josiam, Smeaton and Clements' (1999) research, student vacationers were mostly attracted by "party reputation" and "sun, surf and sand" at the destination. Klenosky (2002) pointed out his respondent students chose "experiencing novelty", "relaxation", "escaping from daily routine", "socializing with other people", and "learning and obtaining knowledge" factors as their main reasons for visiting their destination. Kim (2007) also investigated student motivations for domestic and international travel. The outcomes revealed that there existed significant differences in the motivations of "education", "family togetherness", "friends", "scenery", "connection and thrill", "fun and relaxation", "attraction", and "beach and sun" (Kim, 2007). Sakakida, Cole, and Card (2004) stated there were significant motivational differences between students who came from Japan and the US, since they have different travel preferences and cultural tendencies; yet both of them prefer to travel with a few people, and visit unfamiliar destinations in accordance with their own travel arrangements. Likewise, the travel motivations of Canadian and Chinese students also had differences (Wang & Walker, 2010). For Canadian students, "achievement", "risk taking", and "being different and new" were ranked as the most important motivations for their tourism, while "escaping personal social and physical pressure" and "learning" were motivations Chinese students agreed played vital roles in motivating them to visit a destination (Wang & Walker, 2010).

A number of studies have examined student travel motivation in the field of cultural tourism. Richards and Wilson (2003) conducted research on the student's independent

travel market on a larger scale, gathering information from 2,300 young respondents from Mexico, Hong Kong, Canada, Slovenia, Sweden, South Africa, the United Kingdom and the Czech Republic. The important travel motivations were ranked by the study participants. The most vital motivation for them was “cultural exploring”, which was selected by 83% of the respondents. The second most significant motivation was “excitement”, which was selected by 74% of the students, followed by “increasing knowledge”, which was chosen by 69% (Richards & Wilson, 2003). The researchers indicated that, among one-fifth of all literature in the tourism field, students accounted for a big proportion of those selected as research respondents. Furthermore, personal interest was increasingly viewed in this body of literature as an important motivator (Cetinel & Yolal, 2008). In a comparison of British and Chinese students’ tourist motivations, the British students cared more about fun, social activities and outdoor adventure recreation during a beach holiday, while the Chinese students paid greater attention to seeing famous sights and learning about history and cultures. Both of these groups enjoyed their vacations, and considered them important for relaxing and having fun after their studies (Xu, Morgan & Song, 2009).

Kim and Jogaratnam (2002) demonstrated that the travel motivations of Asian international college students involved seven motivations; knowledge seeking, relaxing, entertainment, sports, leisure, bragging about travel, and family reasons. Comparing this with American students’ motivations, among the seven motivational dimensions, the “knowledge seeking” and “sports” motivations played different vital roles to motivate students from the two countries. For Asian international students, “knowledge seeking” was the most important motivation for travel, whereas American students preferred motivations related to “sports”, “relaxation”, “entertainment”, “bragging about travel” and “family”.

Li and Bao (2000) found that the dominating travel motives of Chinese university students were making new friends, seeking new experiences, exploring other cultures and learning about history. Liao (2012) reported that, “learning something new or

increasing their knowledge”, “seeing and experiencing a new destination”, “a long held desire to visit the destination”, “having fun or being entertained”, and “enjoying good weather” were the top five push factors of Chinese student motivation when they travelled in the US. On the other hand, in order from most to least important, the pull factors were “relaxation”, “know the culture in-depth”, “develop skill and knowledge”, “enjoy entertainment”, “novelty seeking”, “getting away”, “sightseeing”, “reinforce the relationships of family/friends”, “sight-see”, and “enjoying the country and tour”(Liao, 2012). Ryan and Xie (2003) conducted research on Chinese students’ travel motivation in New Zealand. Their demands primarily focused on “going sightseeing”, “having relaxation and fun”, “exploring new places”, “learning about New Zealand”, and “visiting somewhere I had read about”. They also found one purpose of Chinese students and visitors travelling within New Zealand; to evaluate career and residence opportunities.

3.4 Adventure Tourism

Contemporarily, adventure tourism has become a popular and fast-growing form of tourism around the world (Schlegelmilch & Ollenburg, 2013). Martin and Priest (1986) indicated that the features of adventure tourism are risk and competence. Ewert and Hollenhorst (1989) considered the definition of adventure tourism to be, “a certain degree of danger/risk combined with a search for competence”, which would bring the tourist a real sense of adventure. The notion was also advanced that in adventure tourism, recreational activities are conducted in a natural environmental setting, bringing a real sense of risk or a perceived danger for tourists, with the uncertain outcome and circumstances having an impact on the participants (Ewert, Galloway & Estes, 2001). Following Beedie (2003), adventure tourism is generally recognised as a trip that contains a range of physical activities. Weber (2001) pointed out that adventure tourism generally focuses on adventure recreation activities (Hall & Weiler, 1992), such as climbing, rafting, paragliding and bungee jumping. Nevertheless, there is a difference between traditional outdoor recreation activities

and adventure tourism since the participants must undertake physical danger and face an uncertain outcome.

According to the previous literature, adventure recreation activities can be classified into various forms of sport, such as skydiving, bungee jumping, climbing, caving, paragliding, hang gliding, scuba diving, mountain hiking and similar sports (Robinson, 1992; Malkin & Rabinowitz, 1998; Ewert et al., 2001; Chu, 2003; Murray, 2003). Priest (1992) presented four criteria to justify whether an activity is categorised as an adventure activity: (1) The intention of taking part in the activities should be voluntary; (2) the activity ought to be conducted in a natural environment; (3) when the activity takes place in a natural environment, there should be danger attached; and (4) the activity should contain an element of uncertainty, impacted by the circumstances of the risk and a tourist's level of competence. Similarly, based on similar characteristics, four core characteristics of adventure recreation were enumerated by the Ministry of Transportation and Communication (2005) in Taiwan, distinguishing adventure recreation from traditional recreation. The challenging activities required: (1) Physical energy; (2) particular skills; (3) participants to have a perception of challenge, stimulation and conquest; and (4) participants to experience a new environment.

3.5 Adventure Motivation

Hall and Weiler (1992) stated that the primary motivations for engaging in adventure recreation activities were to be in contact with nature, stimulation, self-actualisation, adventure and social contact. According to Dowd (2004), Lipscombe (2007) and Weber (2001), adventure was deemed to be a motivating factor to take part in adventure recreation, being regarded as the prime motivator. From their empirical researches Costa and Chalip (2005), Creyer, Ross and Evers (2003) and Pidgeon, Kasperson and Slovic (2003) concluded that the second antecedent was being in contact with nature and sociability.

Adventurers' motivations are extremely beneficial for tourism, since they are not only able to categorise tourist behaviour, but can also increase economic growth in the global industry. For adventure activities, at least fourteen categories of motivation of adventure travellers have been identified (Buckley, 2012). These motivations, which are derived from fifty previous studies, are summarised in Buckley's (2012) research, and classified into three themes. First, the theme "internal, performance of activity" includes thrill, fear, control, skills, achievement, fitness and risk. Second, "internal/external, place in nature" contains three elements; nature, art, and spirit. Third, friends, image, escape and compete are the elements listed in the theme of "external, social position". Schlegelmilch and Ollenburg (2013) indicated that risk, fear and thrill are the primary factors to motivate tourists to take part in adventure activities. Despite adventure tourism being a promising market, compared with studies of other motivations, research on this subject remains scarce, particularly in relation to the motivations of Chinese adventurers.

3.6 Summary

The effects of motivation not only lead to a better understanding of tourists, but also provide useful information about probable destinations. In spite of numerous studies having been conducted to explore Chinese tourist motivation, there has been little research in regards to travel to New Zealand and few investigations into adventure tourism in New Zealand. In addition, despite an increasing number of studies of student motivation and the student market, information on Chinese student motivation is still insufficient. Student motivations and decision-making may be influenced by different cultures. Nevertheless, in the previous research, there is no study concerning Chinese students' travel motivations in New Zealand adventure tourism. Thus, it is necessary to research and analyse the motivations that stimulate Chinese students to engage in adventure recreation activities in New Zealand.

CHAPTER 4: METHODOLOGY

This study seeks to discover China-born international university students' adventure motivations in New Zealand. The essential aim of this investigation is first attempt to build a model of Chinese overseas students' adventure motivations. The research instrument and sampling selection are described in this chapter, and the development of the questionnaire and the treatment of data are described in detail. In addition, a step-by-step series of methods for conducting the research and a brief justification of the statistical analysis are also presented in this chapter.

4.1 Selection of Research Instrument

This study adopts a quantitative research method to analyse China-born international university students' motivations to experience adventurous activities. As Gray and Airasion (2000) stated, the investigation of cause-effect phenomena and the exploration of relationships were best described in a quantitative approach. A self-administered questionnaire format is the most appropriate quantitative method to obtain the data. As Hlatky et al. (1989) stated, "a brief, self-administered questionnaire can provide a standardized assessment of functional status that correlates well with an objective measure of maximal exercise capacity". By asking a series of questions of respondents, the self-administered questionnaire enables the researcher to collect data using the same questions during a short period (Alreck & Settle, 1985). The self-administered questionnaire involves a clear introduction and brief instructions to ensure that respondents know the purpose of the study and can record their answers accurately. The survey used in this study adopted a method that protects participants' privacy, by ensuring that they are not identified in the results.

Sample size is another vital determinant in developing the survey instrument. In most research, large samples from a population of interest are generally regarded as better than small ones. According to Graziano and Raulin (2000), however, in reality the

size of a sample ought to be determined by the two considerations of cost and time. As Denzin and Lincoln (1994) suggested, in some research, particularly that which involves studying a specific ethnic group that is a small proportion of the general population, it is not appropriate to employ the usual quantitative techniques involving a large sample size and random sampling. Hoyle (1995) also identified that the optimum sample size for probability sampling in quantitative research is in the range of 100 to 200. Therefore, in this study, given the numbers of China-born international university students who have experienced a New Zealand adventure tour as a proportion of the general adventure population, 153 participants initially participated, with 153 self-administered questionnaires were distributed for this survey.

4.2 Questionnaire Design

From the literature, most investigators were found to have adopted structured and close-ended questionnaires to conduct their surveys. According to Veal (1997), this format, in which alternative answers were listed for respondents to select from, was efficient in quickly ascertaining respondents' opinions. Alreck and Settle (1985) pointed out that the length of a survey has an effect on the willingness of recipients to participate, as well as on their response rates to the questionnaire. The appropriate upper limit of questions in a survey is 60 and, where large numbers of questions are asked, all questions should be designed so that they can be answered quickly (Alreck & Settle, 1985). In addition, the time required to complete the questionnaire should not be more than 15 minutes. Hence, based on these principles, this survey was designed to be less than 3 pages in length. The questionnaire was divided into 2 parts, with a total of 39 questions. Instructions at the beginning of the survey told respondents how to make their selection and how much time should be spent on the survey. Respondents indicated their consent to participate in the research by completing the questionnaire.

The first section of the survey contained two themes; participants' backgrounds, and their personal adventure travel characteristics (Appendix A). The first four questions established the demographic variables, including gender, age, level of study, and the travel frequency in New Zealand each year. The following eleven questions were more specifically centred on the participant's adventure experiences in New Zealand, such as information sources, adventure activities the participant had experienced, would they like to try activities in the future, would they like to try it again, travel companions, the main travel purpose, whether they would recommend the destinations to friends and relatives, the strongest influencers, as well as the level of price acceptance. Eleven different adventure sports were provided for this investigation, grounded on the popularity of adventurous recreation sport in New Zealand. Those selected were bungee jumping, sky diving, jet boating, canyoning, rafting, parasailing, caving, climbing, abseiling/rappelling, zip lining and paragliding.

The next section was the most crucial part in the whole survey, focusing on the adventure experience motivation of respondents and employing a motivation scale. This set of questions sought to understand why China-born international university students took part in adventure recreation activities. Numerous researchers employ a Likert-type scale to conduct their surveys since its format is simple and effective. A Likert scale is convenient for the respondents to record their attitudes and motivations by circling a particular value. The other advantage of the Likert scale is that it is economical and flexible (Alreck & Settle, 1985). Therefore, this survey adopted a five-point Likert-type scale for the responses. Twenty-four items were measured on a five-point scale ranging from "1 = very unimportant" to "5 = very important". The summated value allowed all responses to be easily quantified and readily coded. The first part of section two contained four questions, mainly exploring the understanding of the attributes of the term "adventure recreation activity" which is based on the past study of Schlegelmilch and Ollenburg (2013). The second part of section two consisted of twenty questions, aimed at understanding the target group's adventure motivations in New Zealand.

4.3 Sample Selection

The selection criteria that participants in this research must meet were: (a) China-born international student; (b) 18 years of age or older; (c) studying at a university in New Zealand; and (d) had had an adventure experience while travelling around New Zealand. Thus, the respondents must be selected from among China-born international university students about an adventure experience in New Zealand. So long as they met the criteria and were willing to complete the questionnaires, they were eligible to be interviewed.

Due to restrictions of time and money, respondents were chosen in this study by means of convenience sampling. One hundred and fifty-three China-born international university students were selected from the main universities in New Zealand, as well as at some adventure attractions that were selected due to their popularity. The researched universities in New Zealand were represented by the University of Auckland, Auckland University of Technology, Massey University, University of Waikato and Victoria University. Among them, the first three universities are in Auckland, the following one university is in the Waikato and the last one is in Wellington. The survey was also conducted at a number of major adventure tourist attractions; Auckland Bridge bungy and climb (Auckland), AJ Hackett Bungy (Queenstown), Auckland skydiving (Auckland), Taupo Tandem skydiving (Taupo), NZONE skydiving (Queenstown), Dart River Wilderness Jet (Queenstown), and Waitomo Adventures (Waitomo). Tourists at these locations might have been waiting to participate in the adventure activities, therefore, they would have enough time to complete the questionnaires.

The researcher placed herself in these target destinations, approaching students/tourists who appeared to be of Asian descent and within the target age range. Each potential respondent was asked an initial question to determine whether they were China-born international university students in New Zealand, were within the

required age range, had had adventure experiences and were interested in adventure activities. Once eligibility was established, the researcher introduced herself and the research project, and explained the requirements of the individuals being sought to participate in the research project. Where the willingness of the person approached to take part in the study was confirmed, he/she was given a pen and a copy of the questionnaire to complete. The next potential participant was approached once the questionnaire had been accepted by the previous individual.

4.4 Conducting the Survey

At the beginning of the research, a Participant Information Sheet (Appendix B) was read by the participants. This form introduced the main purpose of the study to the participants, inviting them to take part in this survey. In addition, it also provided information about the researcher (including contact information for both the researcher and her supervisor), the meaning and importance of the research and the length of time the survey would take to complete. Participants were assured that their privacy would be protected. The Participant Information Sheet explicitly indicated that under the Privacy Act 1993, the researcher undertook that the information supplied by participants would be held securely and that the responses of participants were anonymous. The target areas chosen in which to conduct the survey included several representative and popular adventure attractions, and universities that have a large number of China-born international university students.

All of the data were collected during the four weeks from 16th May to 12th June in 2014 during daylight hours. The data were obtained from 153 Chinese-born international university students over 18 years of age who identified themselves as adventure tourists. Once potential respondents agreed to participate in the survey, closed-ended, self-administered questionnaires were distributed to them. All participants took part in the study voluntarily. When they completed the questionnaires, the participants were given small gifts (i.e. L & P chocolate) as a

token of appreciation. In order to receive a usable and high return rate, the questionnaires were conducted face-to-face, obtained on site and checked for completeness of response. In total, 153 valid questionnaires were obtained.

4.5 Treatment of Data

The questionnaires were distributed to 153 participants and 153 responses were obtained. In order to efficiently analyze the data, it was necessary to identify completed questionnaires which were valid. Based on an in-depth literature review, the absence of data in a few items was considered tolerable, and the value of the remaining data was considered to be still meaningful, unless the responses were superfluous, or inappropriate (Alreck & Settle, 1995). Therefore, the key factors to select valid data were: (a) Questionnaire is mostly complete with a few pieces of missing data; and (b) without blindly making responses. In this survey, the questions concerned with students' motivations primarily utilized a 5-point Likert-type scale. The numbers circled by the recipients to correspond with their thoughts could be automatically coded into digital form. For the other demographic section, the questions regarding China-born international university students' personal travel information were answered numerically; thus, the data could be recorded in a numerical code for analysis.

The security of data storage was important, as the respondents had been assured their privacy would be protected. All responses were strictly confidential, and they were recorded in an aggregated form. Data recorded in the researcher's computer were protected with a password. Only the researcher and her supervisor had access to the data. Data will be stored securely for six years and will be destroyed at the end of that time by being deleted from the computer and memory disk. The data sheet will be destroyed by electronic paper shredding.

4.6 Data Analysis Methods

Before being analyzed, all of the data obtained were selected, coded and categorized. In order to gain representative and effective outcomes, invalid responses must be eliminated by the investigator. Utilizing the Statistical Package for the Social Sciences (SPSS) 22.0 program, various statistical techniques were conducted to analyze the data. The questionnaire items have been analyzed by descriptive analysis, exploratory factor analysis, principal component analysis and varimax rotation for factor analysis. The descriptive analysis was used to delineate the respondents' demographic data (i.e. gender, age category, education level, and travel frequency) and their travel characteristics, which includes travel companion, adventure travel frequency, main travel purpose, whether they would recommend to other people, the strongest influencer and price acceptance. Means, percentages, standard deviations, frequencies and coefficients were calculated using statistical analysis, as outlined in the next section. The significance level (alpha level) of 0.05 was employed in the data analysis. The underlying dimensions associated with student motivations were delineated by factor analysis by means of a varimax rotation procedure, being created using some major factor labels for influences on China-born international university students in making decisions related to experiencing adventure recreation activities in New Zealand. Following McMillan and Schumacher (2001), the internal consistency and the reliability of the survey instrument were tested by reliability analysis (Cronbach's alpha). The eigenvalue should be higher than, or equal to, 1.0, while the items' factor loading should be greater than 0.4, the value of Kaiser-Meyer-Olkin (KMO) should be higher than 0.5 (Kaiser, 1974), and the Bartlett's test should show a significant result (Bartlett, 1937). Through utilising exploratory factor analysis, principal component analysis and varimax rotation for the factor analysis, the adventure motivations of the target participants were identified with clarity. The differences and correlations between these motivations and individual information, as well as the relation between the motive factors and travel behaviors were all probed by independent sample *t* tests and one-way ANOVA test.

CHAPTER 5: FINDINGS & DISCUSSION

The aim of this research is to explore China-born international university students' motivations for engagement in adventure recreational activities in New Zealand. The target sample group consisted of 128 Chinese overseas university students who have experienced adventure tourism in New Zealand. They completed a self-administered questionnaire designed by the researcher. Included in the survey were four questions about personal information, eleven questions regarded travel characteristics, and four questions oriented around the attributes of adventure recreation activities, while the remaining questions were centered on twenty motivational items. The motivation section of the survey was designed as a Likert-type scale; thus, the students could rate the items based on the degree of their importance.

This chapter discusses the results of this survey. The findings were calculated through quantitative descriptive and factor analysis in order to uncover whether significant differences exist in adventure motivations. Therefore, this chapter clarifies the following sections: 1) The demographics of the sample; 2) the adventure travel characteristics of the sample; 3) the main information sources; 4) the attributes of adventure recreation activities; 5) the dimensions of adventure recreation motivations; 6) the demographic and motivational dimensions; 7) the demographic and the adventure travel characteristics; and 8) the adventure travel characteristics and motivational dimensions. All of the objectives are presented as exact numerals following the practice of the previous literature.

5.1 Adventure Respondents' Demographic Characteristics

There are 153 valid survey instruments in this study. The China-born international university students' demographic data are utilized as the independent variables. These variables are gender, age group, study level and travel frequency. The demographic characteristics of these adventure participants are presented in Table 1 through

descriptive analysis (i.e., frequencies and percentages). It can be seen that 50.3% of the survey respondents are male, while the remaining 49.7% are female. These Chinese-nationality students are divided into three groups by age. Most are between 18 and 25, with the next largest group being those aged 26 to 30 years (29.4% of participants). Students aged from 18 to 30 years make up the largest proportion of the sample (92.2%). Slightly over 7% of the students are between 31 and 35 years.

Table 1 Demographic Profile of China-born International University Respondents

Variable	Subgroups	N (153)	(%)
Gender	Male	77	50.3
	Female	76	49.7
	Other	0	0
Age	18-25	96	62.7
	26-30	45	29.4
	31-35	12	7.8
Level of Study	Diploma or Certificate	37	24.2
	1 st year undergrad	17	11.1
	2 nd year undergrad	20	13.1
	3 rd year undergrad	29	19.0
	BBS (honors) or PG Diploma	18	11.8
	Master or PhD	32	20.9
Frequency of Travel	0 trips	0	0
	1-2 trips	85	55.6
	3-4 trips	46	30.1
	>5 trips	22	14.4

Among the convenience sample, almost 24.2% of the China-born international university students have university diplomas or certificates, with 20.9% studying at masters or PhD level, 43.2% studying in different years at university, and 11.8% studying towards a bachelor honors' degree or postgraduate diploma. This group of respondents was asked about their frequency of travel in New Zealand. It was found that 55.6% had made 1 or 2 trips each year while studying in New Zealand, 30.1% travelled 3 or 4 times per year, and 14.4% of the students toured frequently (more than 5 times annually). Interestingly, it was found in Table 1 that all respondents in this

survey had arranged at least 1 journey touring New Zealand annually, which implies that China-born international university students have stable growth potential in this tourist market.

5.2 Adventure Respondents' Travel Characteristics

The findings in Table 2 delineate the data from the respondents (128) regarding the adventure travel characteristics of China-born international university students in New Zealand. Table 2 shows that 25 students indicated they do not undertake the adventure tourism in New Zealand, therefore, this analysis should be based on 128 respondents not 153 persons. The first choice for travel companions was friends (79.7%), at 102 people, which meant that a large number of Chinese-nationality students preferred to travel with friends on their adventure trips. The proportions of those who travelled with family members, those who traveled independently and those who purchased package tours were 11.7%, 6.3% and 2.3%, respectively, which summed to barely 20% of all participants. In New Zealand, for Chinese overseas students, the mode of taking trips with friends was obviously attractive in the sample, while the traditional pattern of travelling via package tours was found to no longer play a meaningful role in the travel companion. Moreover, when completing this question, a majority of the respondents indicated that they were willing to be self-drive tourists with their friends. Owing to the wide utilization of automobiles, young students prefer self-driving holiday travel, with this pattern having become more-and-more prevalent worldwide (Liu, Zhang & Nie, 2012). With the common travel interests and a similar tourist budget, Chinese overseas students can make trip planning and decision making based on their emotional, opportunistic and hedonic behavior. They are free to decide where to go, how long to stay, and what to do. Thus, travelling with friends in self-drive tours is able to increase flexibility and the freedom of choice.

Table 2 Adventure Travel Characteristics of China-born International University Students

Adventure Travel Patterns	Subgroups	N(128)	(%)
Travel Companion	Myself only	8	6.3
	Travel Group	3	2.3
	Family	15	11.7
	Friend/s	102	79.7
Frequency of adventure trip	0 trip	25	
	1-2 trips	118	92.2
	3-4 trips	6	4.7
	>5 trips	4	3.1
Main purpose	Travelling for general reasons (such as to see the country)	32	25
	Travelling for general reasons, but also do an adventure activity when at a destination	92	71.9
	Travelling just for adventure activities	4	3.1
Recommend New Zealand adventure tourism to friends and relatives	Yes	120	93.8
	No	8	6.3
Influencer	Myself	60	46.9
	Friend/s	60	46.9
	Relative/s	8	6.3
Prices of Adventure activities	Can accept	35	27.3
	Some are reasonable, some are not	71	55.5
	The prices are too expensive	20	15.6
	Not care	2	1.6

In regards to the frequency of adventure trips, Table 2 shows that a majority of China-born international university students (118 people; 92.2%) took part in adventure activity trips 1-2 times per year. Only 10 participants stated that they usually engaged in 3-4 trips, or more than 5 trips, each year in New Zealand purely to experience adventure recreational activities. Yet, in the sample, 25 persons indicated that they did not make travel arrangements specifically to take part in adventure tourism.

Of the survey participants, 25% stated that the main purpose for their travel was to learn about New Zealand, and 3.1% of these students travelled around New Zealand only for the purpose of joining in adventure activities. Most people (71.9%) indicated that they visited New Zealand for general reasons, such as to see the country, but also to experience an adventure activity when at a destination. Ryan and Zhang (2006) found that among 15 main tourist motivations of Chinese overseas students, the items of “to learn about New Zealand” and “to engage in an adventure tourism activity” were ranked fourth and eighth, respectively, showing that they were not the primary motivations for the travel. The top 3 items in their research were “to relax and have fun”, “to do something different/ just for a change” and “to go sightseeing” (Ryan & Zhang, 2006). It can be seen in this study that most respondents indicated their purpose as one of preferring to go sightseeing in New Zealand, have a relaxing time and enjoying leisure time at the tourist destination, while at the same time engaging in some adventure activities that were extremely attractive to them when at these destinations; this is another reflection of the item “to do something different/ just for a change”. Therefore, according to this question, the results confirmed the findings of Ryan and Zhang (2006). Additionally, a few participants set out “to engage in an adventure tourism activity” as their main travel purpose.

Almost all of the respondents (93.8%) who engaged in adventure recreation reported that they would recommend that their friends and relatives visit New Zealand and take part in those adventure activities. Interestingly, nearly half of the students (46.9%) pointed out that the most influential person stimulating them to participate in adventure activities was themselves. This was the same with data of friend/s, at 46.9%. Only eight respondents were influenced by their relatives. Accordingly, the pricing aspect of the investigation of adventure recreation was based on the participants’ experiences and feelings. Over half of the participants (55.5%) stated that some prices of these recreational activities were reasonable, while some were not. Nearly 40% of the recipients had opinions on the pricing of the adventure activities. Those who thought that the prices were acceptable numbered 27.3%, while 15.6% of the students

pointed out that the prices were too expensive. The remaining 1.6% of respondents stated that they did not care about the prices.

5.3 Demographics and Adventure Travel Characteristics

This research employs one-way ANOVA test to define the significant differences between the China-born international university students' demographics and their adventure travel characteristics. Table 3 displays the results of the one-way ANOVA test for China-born university student participants' adventure travel characteristics among travel frequency groups. Only one variable showed significance ('adventure travel frequency'). For adventure travel frequency ($p = 0.050$), the value of p is equal to 0.05, which indicates that travel frequency has an effect on adventure travel frequency. The significant difference in adventure travel frequency is that over 5 trips ($M = 2.26$, $SD = 0.65$), followed by 3-4 trips ($M = 2.16$, $SD = 0.43$) both have higher means and standard deviations than 1-2 trips per year ($M = 2.03$, $SD = 0.25$). This signifies that people who take over 5 trips every year are more likely to prefer to make a particular holiday trip for adventure tourism reasons.

For travel companion ($p = 0.111$), main travel purpose ($p = 0.092$), recommend to friends and relatives ($p = 0.826$), the strongest influencer ($p = 0.485$) and price acceptance ($p = 0.550$), the p values are all greater than 0.05. Therefore, there are no significant differences in these travel characteristic variables among the travel frequency groups. For the differences in China-born international university students' adventure travel characteristics among their age groups, and the differences in travel characteristics among study levels, the p values in the two comparisons are all higher than 0.05. As a consequence, there are no significant differences in travel characteristics among age groups, or study levels; that is, age and the level of study do not influence Chinese university students' adventure travel characteristics.

Table 3 Difference in Adventure Travel Characteristics Among Travel Frequency Groups

Adventure Travel Characteristics	Travel Frequency	N	Mean	SD.	Sig.
Travel Companion	1-2 trips	65	3.66	.815	.055
	3-4 trips	44	3.80	.593	
	Over 5 trips	19	3.26	1.098	
Adventure Travel Frequency	1-2 trips	65	2.03	.248	.050*
	3-4 trips	44	2.16	.482	
	Over 5 trips	19	2.26	.653	
Main Travel Purpose	1-2 trips	65	1.72	.516	0.092
	3-4 trips	44	1.91	.421	
	Over 5 trips	19	1.68	.478	
Recommendation	1-2 trips	65	1.05	.211	.633
	3-4 trips	44	1.09	.291	
	Over 5 trips	19	1.05	.229	
The Strongest Influencer	1-2 trips	65	1.58	.610	.795
	3-4 trips	44	1.64	.613	
	Over 5 trips	19	1.53	.612	
Price Acceptance	1-2 trips	65	1.85	.690	.233
	3-4 trips	44	1.91	.772	
	Over 5 trips	19	2.16	.501	

* $p < .05$, N=128

5.4 The Main Information Sources Used for Decision-making

For this section, which investigates the information sources used, the investigator provided multiple choices to the survey participants. The participants could choose from several primary information sources to help them in making decisions in regards to adventure tourism. Table 4 shows that advice from friends was ranked first, at 67.32%, which indicates that recommendations by friends are seen as the most significant information source when designing vacation and adventure recreation activities. Interestingly, WeChat was found to be the favorite social network for 45.75 % of the China-born students, followed by Weibo, which was chosen by 35.95% of respondents. Google and Baidu (45.1%) still play a crucial web search role in

students' lives. It has also been confirmed by the focus group that they rarely, or never, choose any other foreign social networks for decision making, with Facebook and Twitter used for web searching by only 18.95% and 0.65% of the sample, respectively. I-sites and Trip Advisor are useful platforms, since they provide comprehensive and detailed travel information for tourists. Some students still use traditional methods (e.g., guide books, newspapers and magazines, and travel agencies) to obtain travel information. The suggestions of family (11.11%), information sources from the Renren website (1.96%), or other approaches (1.96%) all accounted for small proportions of students.

Table 4 Frequency of Adventure Information Sources in Decision Making for New Zealand Trips

Information sources	N (153)	(%)
Advice from friends	103	67.32
WeChat moment	70	45.75
Google/Baidu	69	45.10
Weibo	55	35.95
Guide book	48	31.37
Newspaper/Magazines	48	31.37
Travel agency	39	25.49
I-site	34	22.22
Facebook	29	18.95
TripAdvisor	25	16.34
Advice from family	17	11.11
Renren Website	3	1.96
Other	3	1.96
Twitter	1	.65

According to Ryan and Xie (2003), the main pattern for Chinese students to obtain their travel information is from friends, relatives and the Internet. It is noted in this research that, among 14 useful channels, the top primary adventure information sources for decision making are friends, WeChat moment, Google/ Baidu and Weibo. Travel information being provided by friends and the Internet is consistent with the research outcomes of Ryan and Xie (2003). The data in this study shows that advice

from friends ranks first, accounting for the highest proportion of responses. This means that, through looking back upon unforgettable and wonderful travel experiences and feelings, word of mouth recommendations from friends can be regarded as very trustworthy and helpful when it comes to selecting tourist destinations and relevant activities. Although word of mouth is an old channel through which to share individual views of services or products with other people, it is still one of the most effective and vital approaches in interpersonal communication (Sheng, 2012). As Cheema and Kaikati (2010) stated, word of mouth with a positive attitude is beneficial to opting for particular products. Likewise, Berger and Schwartz (2011) stated that interestingly expressed word of mouth strongly motivates consumers to make quick decisions. Following Jalilvand and Samiei (2012), for many tourists, word of mouth recommendations have been recognized as a determinant of travel patterns. The item “advice from family” ranks fourth from bottom, which meant that a majority of Chinese relatives will not recommend that their children take part in any risky activities in New Zealand.

Compared with other information collection methods, the results verified that WeChat and Weibo are currently the most popular social networks for Chinese people, especially for students and young people. Weibo is an outcome of strategic thinking and innovation, relying on other products such as Twitter and Facebook. Microblogging is a social media mode that enables users to post short messages to friends and followers through multiple platforms, while ensuring immediate and frequent updates on their status, opinions and activities (Barnes, Bohringer, Kurze & Stietze, 2010). Contemporarily, Weibo is becoming the leading microblogging service. It is provided by Sina, which is the largest Chinese-language infotainment web portal. Weibo integrates microblogging functionalities with Twitter-like functionalities, while also allowing sharing of photos, broadcasting of short messages, playing of games, uploading of videos, and communication with others via private instant messaging (Zhang & Pentina, 2012). Weibo is a version of Twitter with Chinese characteristics, while WeChat, which was launched by the Tencent company, offers

a free-of-charge instant micro messaging service to the public. Both of these websites have brought many significant changes, not only to interpersonal communication in traditional modes, but also to the network approach. Obviously, freedom of speech and association in China are much broader than in the past (Luo, 2014). Based on the statistics, the number of registered users reached over 300 million, spread over nearly 100 countries, by the end of January, 2013 (Chen, 2006). As Yao (2010) and Hao (2004) demonstrated, college students have been the most active group in this unprecedented increasing number of WeChat users, accounting for the highest proportion of users. This is due to their active minds, and their willingness to accept new science and technology in society. In addition, it is low cost, allows for self-expression, is fast and convenient, and has privacy protection; all of these points are unique features that attract more and more people to the site. During the survey, the majority of the Chinese participants pointed out that they spent at least one or more hours updating their *news of the moment* posts on WeChat every day.

Twitter is the most welcomed microblogging platform in the world. It is reported that there are currently more than 145 million registered users of Twitter, inspiring many competitors and clones (Zhang & Pentina, 2012). Ellison, Steinfield and Lampe (2007) and others have described the social status of Facebook in their studies, stating that, because of very interactive functions and heavy usage, Facebook has become known as a valuable platform. What is more, according to the monthly visit statistics included in Kazeniac's (2009) study, Facebook has been ranked as the number 1 social networking site by its registered users, followed by Twitter. Although Facebook and Twitter are highly favored and openly welcomed by most young people worldwide, the figures in this research reflect that the level of usage of these 2 sites (Facebook and Twitter) by China-born international university students is very low.

The word Renren means 'everyone', which is translated as 'people' in English (Qiu, Lin & Leung, 2013). AppLeap and Great Wall Club (2010) state that Renren is a Chinese-based social networking site (SNS), with more than 160 million users, which

requires Chinese users to register their real name on the social networking platform. It provides numerous functions similar to Facebook, such as sharing information, communicating with each other, playing online games and watching videos, with Marshall (2008) describing Renren as the “Facebook of China”. According to Mozur (2012), however, more recently, social strategic attention has turned to the mobile Internet, with the number of mobile users occupying 60% of the total activity on this platform. China Internet Network Information Center (CNNIC, 2014) recently reported several items of data in *The 33rd Statistical Report on Internet Development in China*. These data included the fact that the number of mobile Internet users reached 500 million by the end of 2013, which is dramatically greater than the 80 million users at the end of 2012. It also revealed that a large majority of mobile Internet users prefer to use mobile instant messaging (86.1%). The number of social networking website users (e.g. Renren), however, fell sharply during this period, to 278 million; among these users, 32.6% shifted to WeChat. This is the reason why the number of WeChat users is seen to increase perpendicularly; the result of this research demonstrated that only 1.96% of respondents obtained adventure information sources in decision making for their trips.

5.5 The Attributes of Adventure Recreation Activities

Before the researcher set out to discover China-born international university students’ recreational motivations for experiencing adventure activities in New Zealand, the survey participants were required to rate a number of attributes of the term “adventure recreation activities” in order to best delineate its meaning to them. Based on the past study of Schlegelmilch and Ollenburg (2013), the meanings of the term “adventure recreation activities” are shown in Table 5, with participants stating that “has to be exciting (gives me a thrill/adrenaline rush)” was the most representative interpretation, with a mean of 4.38. This was followed by “has to be risky” (M = 3.44), which was recognized as the second most chosen explanation of the term “adventure recreation activities”. This was followed closely by the statement that an adventure recreation

activity “has to be something that impresses my friends”, with a score of 3.29. A number of participants thought that “has to be in a remote area” (M = 3.27) was the least important of all the attributes.

Table 5 Attributes of the Term “Adventure Recreation Activities” in the Opinion of China-born International University Students

Attributes of the term “adventure recreation activities”	Mean	SD	Mean Ranking
Has to be exciting (gives me a thrill/adrenaline rush)	4.38	.87	1
Has to be risky	3.44	1.07	2
Has to be something that impresses my friends	3.29	1.24	3
Has to be in a remote area	3.27	1.16	4

Notes: N = 128; 1 = very unimportant; 2 = somewhat unimportant; 3 = neither unimportant nor important; 4 = somewhat important; 5 = very important

In Schlegelmilch and Ollenburg’s (2013) investigation, the descriptions “fun”, “excitement” and “thrill” were the dominating characteristics of “adventure” for youth travelers. Their data showed that approximately 90% of youth travelers were interested in adventure activities, since they felt “exciting”, “fun”, “adrenaline” and “thrill” (Schlegelmilch & Ollenburg, 2013). The results were also confirmed by Cater’s (2006) analysis that all adventure recreation activities have a common ultimate motivation, which is agreed as being “fun”, followed by “thrill”. Compared with youth tourists’ motivations, as well as general tourists’ motivations, in this research, “has to be exciting (gives me a thrill/adrenaline rush)” and “has to be risky” appear to be the primary attributes associated with “adventure recreation activities” for China-born international university students; thus, there is no obvious difference in Chinese overseas student incentives.

5.6 The Dimensions of Motivation

5.6.1 *Rankings of Importance of Adventure Motivation Factors*

Table 6 lists the mean values of 20 motivating items in descending order. The motivation that China-born international university students presented when deciding to take part in adventure activities in New Zealand ranged from the highest mean score of 4.63, to the lowest mean score of 2.38. Among these items, 8 motivating items recorded mean scores above 4, with 8 items ranging from 3.96 to 3.02, while 3 items were below 3.00. The item “I have never experienced it before” obtained the highest mean score of 4.63, followed by “experience new and different lifestyles” at 4.51. “Do something exciting and thrilling” was also a crucial motivation item for China-born international university students ($M = 4.48$). On the other hand, the 3 least important motives were “for the friendship(s)” ($M = 2.80$), “travel on low cost” ($M = 2.59$) and “to use my equipment” ($M = 2.38$).

Intrinsic motivation is widely given the definition “doing something for its own sake” (Reiss, 2012). Ryan and Deci (2000) indicated that intrinsic motivations, which have the highest level of self-determination, can reflect the active and curious innate demands of individuals, interest people through their novelty, exercise their abilities, explore new things, and broaden their skills and knowledge. As Buckworth, Lee, Regan and Schneider (2007) demonstrated, with intrinsic motivations, performing a behavior is purposely done to gain satisfaction and pleasure during the procedure; that is, the individual elects to do something inherently interesting (Cini, Kruger & Ellis, 2013). For instance, “to enjoy the beauty of the natural environment” and “to enjoy the wilderness” were the crucial intrinsic motivations for visiting a national park (Eagles & McCool, 2002; Kim, Lee & Klenosky, 2003). Guay, Vallerand and Blanchard (2000) and Burton, Lydon, D’Alessandro and Koestner (2006) indicated that “because this activity is fun”, “because I feel good when doing this activity” and “because I think that this activity is interesting” were examples of general intrinsic

motivations. Reviewing the literature, the intrinsic motivations in this research are distinguished into eleven dimensions: “I have never experienced it before”; “experience new and different lifestyles”; “do something exciting and thrilling”; “enjoy different scenery”; “see the world and experience a new culture”; “to be physically and emotionally challenged”; “for the sense of accomplishment”; “have an adventure”; “learn new things and increase my knowledge and skills”; “for self-expression”; and “to face the risk and danger”.

Table 6 China-born International University Students' Adventure Recreation Motivation Rankings

Motivation	Mean	S. D	Mean Ranking
I have never experienced it before	4.63	.81	1
Experience new and different lifestyles	4.51	.63	2
Do something exciting and thrilling	4.48	.69	3
Share experiences with friends back home	4.40	.74	4
See the world and experience a new culture	4.35	.86	5
Enjoy different scenery	4.33	.88	6
To be physically and emotionally challenged	4.22	.90	7
For the sense of accomplishment	4.20	1.01	8
To be in control and make decisions	3.96	1.01	9
Have an adventure	3.95	1.17	10
Learn new things and increase my knowledge and skills	3.79	1.01	11
Test myself	3.78	1.07	12
For self-expression	3.77	1.12	13
To face the risk and danger	3.74	1.22	14
Meet new and different people	3.66	.82	15
None of my friends have done it before	3.27	1.26	16
To show other people my skills	3.02	1.19	17
For the friendship(s)	2.80	1.15	18
Travel on low cost	2.59	1.19	19
To use my equipment	2.38	.70	20

Notes: N = 128; 1 = very unimportant; 2 = somewhat unimportant; 3 = neither unimportant nor important; 4 = somewhat important; 5 = very important

In contrast, extrinsic motivation refers to doing something because it leads to a separable outcome (Ryan & Deci, 2000); that is, in order to pursue an instrumental

goal (Reiss, 2012). Its aim is to obtain benefits, or avert negative results, that are anticipated to subsequently occur (Buckworth Lee, Regan & Schneider, 2007). In this study, the items “share experience with friends back home”, “to be in control and make decisions”, “test myself”, “meet new and different people”, “none of my friends have done it before”, “to show other people my skills”, “for the friendship(s)”, “travel on low cost” and “to use my equipment” are all extrinsic motivations. Chinese overseas university students are motivated to take part in adventure tourism by the items “share experience with friends back home”, “to be in control and make decisions”, “test myself”, “meet new and different people”, “none of my friends have done it before” and “to show other people my skills” because they consider, and identify with, the individual importance of the adventure tour. They personally believe that it is valuable to them; thus, these items are extrinsically motivated since the student respondents are participating in adventure activities for the instrumental value of the activities rather than because they find these activities innately interesting. Likewise, the motives “for the friendship(s)”, “travel on low cost” and “to use my equipment” are extrinsic driving forces, because the students are engaging in the recreation activities in order to attain the separable outcomes of maintaining friendships, saving money and improving their skills. The results are similar to the findings of Cini et al. (2012), as the items “to escape from my daily routine,” “to put myself to the test,” “to build relationships” and “to learn new things about nature and wildlife” are extrinsic motivations, and these were found to be the main reasons for visiting national parks.

Among the top eight primary motivations, which all score above 4.0, only one motivation item; “share experiences with friends back home”; is categorized as an extrinsic motivation, while the other seven items are all intrinsic motivations. It can be determined from the responses that the primary driving forces stimulating China-born international university students are intrinsic motivations, and the consequences match the natural motivational tendency of intrinsic motivations, which are not able only to boost the participant’s cognitive, physical and social development,

but are also able to enrich their personal knowledge and skills through acting on one's inherent interests.

5.6.2 Factor Analysis

The aim of the factor analysis is to explore the underlying relations among the 20 adventure motivation factor items of China-born international university students. Gorsuch (1983) found that factor analysis was useful in discovering the content of a region, forming a domain, designing unknown notions and categorizing, or shortening, data. In particular, factor analysis has been applied to explore whether the observed variables can be interpreted entirely, or largely, using a smaller number of variables, referred to as factors. This study has applied exploratory factor analysis, principal component analysis and varimax rotation for the factor analysis in order to probe the questionnaire items. The majority of the surveys have shown that researchers rely on a popular package to make a decision. Peterson (2000) explained that this package generally uses principal component analysis for extracting the factors, determining the number of factors to be retained under the rule that they have an eigenvalue greater than one (EVG1) and interpreting varimax factor rotation. Similarly, Patil, Singh, Mishra and Donovan (2008) proposed that the strategy of factor extraction, the criteria of factor retention, and factor rotation are the three crucial steps that make up exploratory factor analysis (EFA). Therefore, to verify the construct validity of the questionnaire, this study has used exploratory factor analysis (EFA) in its investigation.

5.6.2.1 The Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity

The Kaiser-Meyer-Olkin test of sampling adequacy (KMO) and Bartlett's test of sphericity are the primary and indispensable tests used to measure the factorability of the inter-correlation matrix. Whether or not it is appropriate to utilize a factor model is based on the results obtained from these two tests (Pishghadam, Noghani & Zabihi, 2011). The individual and multiple variables could utilize the Kaiser-Meyer-Olkin

(KMO) test for their calculation. In addition, the KMO statistic could also represent the ratio of the squared correlation between variables to the squared partial correlation between variables. The values of the KMO statistic can vary from zero to one, while, relative to the sum of the correlations, zero indicates that the sum of the partial correlations is large, reflecting diffusion in the pattern of correlations (Kaiser, 1970). The calibration proposed by Kaiser (1974) is that, when the values are below 0.5, the correlation is unacceptable. If the values are higher than 0.5, the correlation is valuable. By that analogy, if the values range from 0.5 to 0.7, this is considered mediocre. Values between 0.7 and 0.8 are regarded as meritorious, while values between 0.8 and 0.9 are very good, and values above 0.9 are viewed as extremely significant.

Bartlett's test of sphericity has been applied to a correlation matrix computed on random normal deviates and receives a chi square value that demonstrates that the matrix might have been produced from a population where the value of the correlation coefficients is zero (Armstrong & Soelberg, 1968). Bartlett (1950) indicated that this test ought to be regarded as an objective benchmark because it could make a contribution to minimizing the danger of explaining factor analytic outcomes. As Maxwell (1959) and Tobias and Carlson (1969) have recommended, Bartlett's test should be applied prior to factor analysis. Likewise, it is re-emphasized by some researchers that computing Bartlett's test is desirable before the factor extraction procedure. This is because Bartlett's test of sphericity is sensitive to detecting results that could be accredited to chance (Sigmund & Carlson, 1969). Therefore, the function of Bartlett's test of sphericity is to test whether the variance-covariance is an identity matrix; that is, whether the variance-covariance matrix can be verified through its diagonal elements being found to be equal.

Table 7 shows the results of the Kaiser-Meyer-Olkin test. The value shows a KMO score of 0.796 for China-born international university participants' motivation, which is close to a value of 1. The results indicate that the correlation is regarded as

meritorious and confirms that it is appropriate to use factor analysis. The Bartlett sphericity test results indicate that the correlation matrix is significant ($p < 0.001$), thus implying that the factor model is adequate to interpret the data.

Table 7 Factor Analysis of China-born International University Students' Motivation on Experiencing New Zealand Adventure Activities

Motivation	Eigen-value	Factor loading	Explained variance	Cronbach's alpha	Mean
<i>Factor 1: Achievement and risk taking</i>	5.117		25.586	0.802	3.986
To be physically and emotional challenged		.679			
Test myself		.618			
To be in control and make decisions		.554			
For self-expression		.607			
For the sense of accomplishment		.578			
<i>Factor 2: Ego enhancement</i>	2.409		12.046	0.609	2.699
For the friendship(s)		.619			
To show other people my skills		.587			
Travel on low cost		.514			
To use my equipment		.401			
<i>Factor 3: Novelty and knowledge seeking</i>	1.629		8.146	0.647	4.156
Enjoy different scenery		.737			
Learn new things and increase my knowledge and skills		.631			
See the world and experience a new culture		.433			
<i>Factor 4: Exciting experience</i>	1.280		6.401	0.595	4.334
Do something exciting and thrilling		.709			
Experience new and different lifestyles		.610			
Share experiences with friends back home		.421			
Have an adventure		.421			
Total Variance explained			52.179		
Cronbach's alpha value			.789		
KMO Measure of sampling adequacy			.796		
Bartlett's Test of Sphericity			.000		

5.6.2.2 Eigenvalues and the Factor Loading

The eigenvalue greater than one (EVG1) rule is reputed to be the most popular factor retention criterion for factor analysis, and the rationale of the EVG1 rule is that “a

factor should account for the amount of variation in at least one variable, which is one” (Patil et al., 2008). This rule was also found studies by Velicer, Eaton and Fava (2000) and Zwick and Velicer (1982, 1986), with these researchers finding that it was useful for analysis. The function of the dominant factor retention criterion is to decide the number of factors to be reserved, which is conducive to the development of inaccurate measures.

Kaiser (1974) identified that the factor dimension ought to be greater than 1.0 in the final factor structure, with the factor loading of all items retained only where the values are greater than 0.4 for each factor grouping. Merenda (1997) stated that the minimum figure of 0.30 was viewed as the threshold for factor loading, which meant that this item can be accepted, or this variable can be categorized in a component, or factor. This is a traditional criterion on which to make a decision. The value demarcation of factor loading was also noted by Hair, Anderson, Tatham and Black (1998); that is, if factor loadings are greater than ± 0.30 then the figure has met the minimal level, while loadings of ± 0.40 are considered more important, and if the loadings are ± 0.50 or higher this implies that the factor is practically significant. Therefore, although different cut off values have been applied in various studies, the factor loading must be determined saliently.

First, through calculating the eigenvalues of the matrix, the value scores of the motivation factor items were all found to be greater than 1.0, as shown in Table 8. The underlying factors were extracted for this study. In order to determine the numbers of factors, the research selected the Scree Plot test to retain the rotation. Varimax with Kaiser Criterion was employed to conduct the factor rotation. Based on Hair et al. (1998), factor loadings of ± 0.40 were deemed as being more important, and loading implied “the relationship between the common factor and the input variable”. The researcher used a loading of 0.4 as a cutoff due to the fact that several of the motive items might have more than one loading, which offered more choices to converge them into shared factors. Hence, the item could contribute to the classification more

reasonably. Consequently, in the further analysis, four items were removed; “meet new and different people”, “I have never experienced it before”, “none of my friends have done it before”, and “to face the risk and danger”. Among them, the former two items were cross-loading items and the latter two items removed as their correlations with the other variables were less than 0.4. The outcome is shown in a transformation matrix and a rotated component matrix. The matrix, which rotated in component pattern, demonstrated the variables loaded on every factor, driving the researcher to develop the four new factors. As can be seen in Table 7, the first factor includes five items. The second factor contains four items. Factors three consists of three items. Four items are included in the fourth factor. The total number of items is sixteen. Finally, the four composite factors have been labeled; “achievement and risk taking”, “ego enhancement”, “novelty and knowledge seeking”, and “exciting experience”.

5.6.2.3 The Cronbach Alpha - Reliability Test

Internal consistency is the most commonly used way of estimating reliability; the Cronbach’s alpha coefficient is one method that can be used to assess internal consistency (McMillan & Schumacher, 2001). Reliability involves the repeatability, stability, or conformance of the measurement instrument. This test can determine whether or not a questionnaire produces identical outcomes in repetitive trials in the same, or a similar, situation. Baumgartner, Strong and Hensley (2002) indicated that the reliability, objectivity and availability of the data can be validated through several types of correlation coefficients, and that measuring internal consistency is the function of Cronbach’s alpha. They stated that the Cronbach’s alpha measurement is an appropriate method of determining whether the reliability coefficient received for the test data is large enough, and they compare it with the reliability coefficients gained from other studies that have utilised a similar test. Likewise, according to Hair, Black, Babin, Anderson and Tatham (2006), the Cronbach’s alpha test is utilized to test the internal consistency of items within each factor dimension. Therefore, Connelly (2011) indicated that Cronbach’s alpha is the only criterion required for

judging scales or instruments, and that it indicates whether the items hang together.

The degrees of reliability are shown by the reliability coefficient; the better the reliability, the higher the coefficient (McMillan & Schumacher, 2001). Baumgartner et al. (2002) revealed that the Cronbach's alpha coefficient is a reliability coefficient, since it varies from 0.00 to 1.00. Among these results, 0.00 indicates no reliability in the instrument, and 1.00 indicates perfect reliability. The value of the reliability coefficients should be equal to, or greater than, 0.70 to indicate sufficient reliability. As Connelly (2011) noted, the results of the Cronbach's alpha coefficient will range from 0 to 1. Among this range, for comparing groups, 0.95 is regarded as showing a high degree of consistency and a low measurement error. Satisfactory consistency between the items is indicated by scores of 0.70 to 0.80. A rule of thumb that is commonly accepted by the majority of researchers is that numerical values of the alpha should range from 0.6 to 0.7, which indicates acceptable reliability. Ranges from 0.7 to 0.95 indicate satisfactory reliability. If the value is 0.95 or greater, high reliability exists. If, however, the alpha is lower than 0.5 this indicates that the correlation between items is poor; in this circumstance the researcher should revise, or discard, the item (Tavakol & Dennick, 2011).

In this research, 128 China-born international university students' data underwent reliability testing. The factor analysis, which contained a principal component and varimax rotation, was applied to determine the value scores from the factoring loading of the questionnaire (Tavakol & Dennick, 2011). For the entire test, the value of the Cronbach's alpha ought to be greater than 0.60. The results of the total Cronbach's alpha testing are presented in Table 8, showing that the model is internally reliable, with a value of 0.789. The composite reliability test shows that the reliability coefficients for the four core dimensions range from 0.595 to 0.802, which implies that the internal consistency is adequate. The value of 0.802 for "achievement and risk taking" shows satisfactory reliability between the items, while 0.609 for "ego-enhancement" and 0.647 for "novelty and knowledge seeking" are both well above the minimum value of 0.60, indicating acceptable reliability. It can be seen,

however, the score 0.595 for “exciting experience” is close to the minimum value of 0.60; thus, it can be regarded as the internal consistency of items within this factor dimension is also acceptable reliability.

5.6.2.4 Explained Variance

It has been demonstrated that the purpose of factor analysis is to interpret “the most variance or related property with the smallest number of factors” (Nunnally & Bernstein, 1994). To determine the number of real factors and components a rule of thumb proposed by Merenda (1997) is that the percentage of variance accounted for ought to be at least 50%. In this investigation, 17 motivational factors of adventure tourism were analyzed by applying a varimax rotation procedure to depict the underlying dimensions. Four composite factors were determined and concluded in the study, all of which influence China-born international university students in making decisions regarding participation in New Zealand adventure activities. Based on the common characteristics of the included variables, the factors were labeled “achievement and risk taking”, “ego enhancement”, “novelty and knowledge seeking”, and “exciting experience”, and explained almost 52.179% of the variance in motivation (see Table 7). Among them, the explained variance of “achievement and risk taking” was found to be 25.59%, “ego enhancement” has a value of 12.05%, with “novelty and knowledge seeking” and “exciting experience” explaining 8.15% and 6.40% of the variance, respectively. The total variance has achieved the rule of thumb that the proportion of variance accounts for more than 50%, as the sum of the variances of the four individual components is 52.179%.

5.6.2.5 Discussion

To validate the questionnaire, this study performed an exploratory factor analysis (EFA). The application of principle components analysis to the China-born international university students’ responses resulted in the 16 extracted factors being found to account for 52.179% of the variance. The appropriateness of factor analysis

for adventure tourism motivations was determined by Bartlett's test of sphericity ($p = 0.000$) and the KMO test (0.796). The KMO score was greater than 0.50, while the Bartlett test showed a significant output. For the entire test, the Cronbach's alpha values were almost greater than 0.60, ranging from 0.595 to 0.802, with the value of the factor loading item also higher than 0.40. The underlying dimensions of the 16 items for motivation were identified into four factors. These 16 items are the original motivational items, with four items having been dropped, while all items with loadings higher than 0.4 were preserved. The top three primary motivation items in Table 6 are "I have never experience it before", "experience new and different lifestyles" and "do something exciting and thrilling". Table 7 delineates the descriptive statistic outputs of the four composite factors; "achievement and risk taking", "ego enhancement", "novelty and knowledge seeking", and "exciting experience". Table 7 indicates the means of four factors. Among them, factor "exciting experience" has the highest value ($M = 4.334$), which implies this factor is the most important motives for participation in adventure tourism. The mean scores of "novelty and knowledge seeking" and "achievement ad risk taking" are in the second and third place, are 4.156 and 3.986 respectively, while, factor "ego enhancement" has the lowest mean score ($M = 2.699$).

Comparing these results with those of the existing literature, another study of Chinese students' holiday motivations in New Zealand found that the strongest travel motivations were "to relax and have fun" and "just for a change/do something different" (Ryan & Zhang, 2006). In that sense it can be found that Chinese overseas students' adventure travel motivations differ little from their general travel motivations. Both empirical researches reflect that Chinese students enjoy relaxation during their vacations, while a simultaneous driving force for them is that they try different things to gain diverse life experience and enrich their knowledge. Ryan and Zhang (2006) discovered, however, that Chinese international students preferred to enjoy the process of relaxation, such as social interaction with their friends, rather than participating in adventure tourism activities in New Zealand. The target group,

which is those who have experienced adventure tourism in New Zealand, differs from the Chinese students who have general travel motivations. Table 6 shows the items of motivation demonstrate that adventurous respondents in this study seek to experience something that “I have never experienced it before”, “doing something exciting and thrilling”, with “experiencing new and different lifestyles” and “share experiences with friends back home” being the other major reasons to engage in risky recreational activities at tourist destinations. Except the item of “I have never experienced it before”, the remaining three items are belonged to the factor “exciting experience” (Table 7). Thus, the primary impelling force for them is “exciting experience”. The respondents also stated (Table 6), however, that they enjoy experiencing pleasure during their adventure tourism, and want to meet new and different people to enhance their relationships; this is similar to the motivation items “enjoy the process of relaxation” and “social interaction” in Ryan and Zhang’s (2006) findings.

Ryan and Xie (2003) found that Chinese students expressed great interest in the more passive outdoor activities; for instance, whale watching, fishing, visiting farms, and shopping, among other activities. The tourism activities in which Chinese students preferred to take part were found to be very different from those activities that Chinese students who are extreme sports enthusiasts are likely to join. Chinese students who like to go fishing, shopping and engage in similar activities were, however, primarily motivated by the demands of “have a relax and fun”, “go sightseeing”, “learn about New Zealand”, “exploring new place” and “visiting somewhere I had read about”. Unlike these factors, Chinese adventure-focused students are enthusiastic about outdoor extreme activities, as they consider these sports to give them entertainment and satisfaction, allowing them to pursue value and self-realization at the same time.

Kim and Jogaratnam (2002) examined seven travel motivational dimensions of Asian international college students; “knowledge seeking”, “sports”, “travel bragging”, “relaxing”, “leisure”, “entertainment”, and “family reasons”. It was found that in the

result of Kim and Jogaratnam (2002), despite the motivational dimension “having fun or being entertained” gaining the highest score, “knowledge seeking” was deemed as the first motivational dimension, as it explained most of the variance. Yet, in this study of Chinese overseas students’ adventure motivation, the first factor ought to be “exciting experience” because of its power to explain the mean. The factor “novelty and knowledge seeking” is in second place among the four main factors, when taking into account the ranking of means. Chinese international university students were found to be motivated by “novelty and knowledge seeking” in their adventure activities, which is similar to the important driving force of young tourists looking for a novel experience in Clark’s (1992) research. Schlegelmilch and Ollenburg’s (2013) pointed out, however, that the vast majority of youth respondents are mainly stimulated by “experiencing something different from home” and “escaping their daily routines”. By engaging in adventure activities and socializing with others in regards to the unique experiences, they can receive self-fulfillment. Ravon (1991) stated that the force of “entertainment”, which has the similar meaning as the factor “exciting experience”, pushed youth to travel.

5.7 Demographics and Motivational Dimensions

In this study, the research utilizes independent t tests to explore whether China-born international university students’ adventure recreation motivations differ significantly by gender. As Coakes (2013) stated, a t test is applied to determine whether there is a significant difference between two set of scores. He reported that the independent-groups t test is an appropriate and useful method to explore the difference that the different respondents have shown under each of the different conditions. These groups ought to be unrelated, with the participants each belonging to only one group. Moreover, the groups being derived from a population with equivalent variances is a prerequisite of the t test. When the significance is based on the value of p , if the p value is less than 0.05, the difference between the mean scores is significant. The test is not significant if the value of p is greater than 0.05. Table 8

shows that gender influences only one factors: “exciting experience” ($p = 0.01$); since the factors’ p value is less than 0.05. Additionally, women ($M = 4.46$, $SD = 0.54$) have higher “exciting experience” than men ($M = 4.21$, $SD = 0.56$); that is, female China-born students place more importance on “exciting experience”. “Achievement and risk taking” ($p = 0.98$), “ego enhancement” ($p = 0.71$) and “novelty and knowledge seeking” ($p = 0.17$) are, however, the primary factors in adventure recreation motivation, with the results showing p values all higher than 0.05, and insignificant differences.

Table 8 Difference in Adventure Recreation Motivation Factors Between Genders

Factors		N	Mean	S.D	Sig.
Achievement and risk taking	Female	63	3.98	.82	.98
	Male	65	3.99	.72	
Ego enhancement	Female	63	2.67	.74	.71
	Male	65	2.72	.73	
Novelty and knowledge seeking	Female	63	4.24	.72	.17
	Male	65	4.07	.68	
Exciting experience	Female	63	4.46	.54	.011*
	Male	65	4.21	.56	

* $p < .05$, $N = 128$

Notes: 1 = very unimportant; 2 = somewhat unimportant; 3 = neither unimportant nor important; 4 = somewhat important; 5 = very important

5.8 Adventure Travel Characteristics and Motivational Dimensions

Adventure travel characteristics include six aspects; travel companion, adventure travel frequency, main travel purpose, recommendation, the strongest influencer, and price acceptance. The differences between the adventure motivation dimensions and adventure travel frequency, recommendation, and price acceptance are all insignificant. In regard to the other three aspects, this study will calculate the p values in the following sections.

Table 9 Difference in the Adventure Recreation Motivation Factor of “Achievement and Risk Taking” Among Main Travel Companions

Factors	Travel Companions	N	Mean	SD	<i>p</i>
Achievement and Risk taking	Myself	8	4.80	.49	.001*
	Travel Group	3	4.53	.12	
	Family	15	3.57	.80	
	Friends	102	3.97	.74	

* $p < .05$, N = 128 Notes: 1 = very unimportant; 2 = somewhat unimportant; 3 = neither unimportant nor important; 4 = somewhat important; 5 = very important

A one-way ANOVA test was applied to examine whether there is any significant difference in the factors of adventure motivation among the demographic variables of age group, education level and frequency. A one-way analysis of the variance (ANOVA) is an appropriate method to compare the mean scores of more than two groups of an independent variable (Coakes, 2013). A sample drawn from the population ought to be normal. The scores of every group ought to have homogeneous variances. The way to judge whether significance exists is by determining the value of p . If the relation is significant, the value of p is less than 0.05. Conversely, a value of p higher than 0.05 indicates that the result is insignificant.

The study used one-way ANOVA testing to validate whether the delineated factor groupings of adventure tourism motivation would vary across the demographic variables of age, study level and travel frequency of the students. By calculate each p value of the five factors among these groups, it was found that all adventure motivation factors have p values greater than 0.05. There is no significant difference among the groups according to age groups and the levels of study. Similarly, no difference was recorded in relation to the travel frequency of the students; that is, the frequency of travel has no significant contribution to recreational motivation among adventure participants' demographic characteristics.

This investigation applies a one-way ANOVA to validate whether there is a significant difference in the factors of adventure motivation among the main travel companion variables (i.e., travelling by myself, joining with a travel group, having a trip with family and travelling with friends). Table 9 shows that, for the factor “achievement and risk taking” ($p = 0.001$), the value of p is less than 0.05, which means that factor 1 is influenced by the choice of travel companions. The form of travelling alone ($M = 4.80$, $SD = 0.49$) has the highest mean score in relation to the factor “achievement and risk taking”. That means that people who selected travelling by themselves consider “achievement and risk taking” to be the most important reason motivating their adventure travel; this is because the mean score of 4.80 is close to 5, implying that the motivation item “achievement and risk taking” is “very important”. For “ego enhancement”, “novelty and knowledge seeking”, and “exciting experience”, the p values are all greater than 0.05, which implies a lack of any significance.

The results of the one-way ANOVA for adventure motivation factors and the main travel purposes are shown in Table 10. For the factors “achievement and risk taking” ($p = 0.001$), “novelty and knowledge seeking” ($p = 0.004$) and “exciting experience” ($p = 0.023$), the values of p are all less than 0.05, which signifies that the three factors are influenced by travel purpose. The differences in “achievement and risk taking” ($M = 4.12$, $SD = 0.66$) and “novelty and knowledge seeking” ($M = 4.26$, $SD = 0.65$) are that the respondents who travelled for general reasons, such as to see the country, but also took part in adventure activities when at a destination, have higher mean scores than the other two main purposes. Hence, with the main travel aim of travelling not only for general reasons, but also to take part in an adventure activity when at a destination, the participants considered the factors “achievement and risk taking” and “novelty and knowledge seeking” to both be primary adventure motivations for taking part in adventure-based recreation. Students who indicated that they were travelling just for adventure activity purposes stated, however, that “exciting experience” was the most important reason for them to join challenging activities. Nevertheless, only

the *p* values for “ego enhancement” and “enhance relationship”, were higher than 0.05; thus, this one motivating factor is not influenced by the main travel purpose.

Table 10 Difference in Adventure Recreation Motivation Factors between Main Travel Purposes

Factors	Main Travel Purposes	N	Mean	SD	<i>p</i>
Achievement and Risk taking	1. Travelling for general reasons(such as to see the country)	32	3.72	.79	.001*
	2. Travelling for general reasons such as to see the country, but also do an adventure activity when at a destination	92	4.12	.66	
	3. Travelling just for adventure activities	4	2.95	1.54	
Novelty and knowledge seeking	1. Travelling for general reasons(such as to see the country)	32	3.97	.75	.004*
	2. Travelling for general reasons such as to see the country, but also do an adventure activity when at a destination	92	4.26	.65	
	3. Travelling just for adventure activities	4	3.25	.63	
Exciting experience	1. Travelling for general reasons(such as to see the country)	32	4.12	.61	.023*
	2. Travelling for general reasons such as to see the country, but also do an adventure activity when at a destination	92	4.39	.53	
	3. Travelling just for adventure activities	4	4.69	.31	

* $p < .05$, $N = 128$

Notes: 1 = very unimportant; 2 = somewhat unimportant; 3 = neither unimportant nor important; 4 = somewhat important; 5 = very important

5.9 Summary

This research was designed to explore tourist adventure motivations of China-born international university students in New Zealand, as well as the relations among three groups of respondents’ demographic profiles, their adventure travel characteristics and the relevant adventure motivation dimensions. The results shown in Tables 1 and 2 are the descriptive statistics and frequency distribution analysis results, showing the demographic profiles and adventure travel characteristics of the Chinese overseas

university respondents. By applying one-way ANOVA test, it is possible to determine the differences between respondents' demographics and travel characteristics. Table 3 displays the results of the one-way ANOVA test for China-born university participants' adventure travel characteristics among travel frequency groups. Travel frequency has an effect on both adventure travel frequency and the main travel purpose. Table 4 mainly shows the frequency of adventure information sources in decision making. Recommendation from friends was ranked the first most used information source. WeChat moment and Weibo were also found to be emerging source platforms, attracting a large number of young people. Google and Baidu were still employed by students, ranking in third place. Table 5 displayed the attributes of the term "adventure recreation activities" in the opinion of respondents. There was no visible difference in the results of this study and those of youth tourists' motivations found in previous studies.

The core findings of the study set out to discover the dimensions of the motivations. By ranking the importance of 20 adventure motivation items, the items "I have never experienced it before", "experience new and different lifestyles" and "do something exciting and thrilling" were found to be crucial motivation items for China-born international university students. On the other hand, the three least important motivations were found to be "for the friendship(s)", "travel on low cost" and "to use my equipment". The 20 motivational items were divided into 2 categories; 11 of them being intrinsic motivations and 9 being extrinsic motivations. In addition, among the top 8 primary motivations, most items were found to be intrinsic motivations. That meant that the primary driving force stimulating China-born international university students was acting on one's intrinsic interests.

To validate the questionnaire, this study performed exploratory factor analysis (EFA). The exploratory factor analysis of the 20 motivation items resulted in four factors being developed; "achievement and risk taking", "ego enhancement", "novelty and knowledge seeking", and "exciting experience". These four factors were found to

explain almost 52.179% of the variance in adventure motivation. Four items were removed from further analysis as two were cross-loading items and the other two items had loading values of less than 0.40. The total Cronbach's alpha value indicated that the model was internally reliable ($\alpha = 0.789$). The appropriateness of factor analysis for adventure tourism motivations was determined by Barlett's test of sphericity ($p = 0.000$) and the test KMO of 0.796. The reliability coefficients for the four factors were 0.802 for "achievement and risk taking", 0.609 for "ego enhancement", 0.647 for "novelty and knowledge seeking" and 0.595 for "exciting experience"; these figures confirmed that the individual items under each factor were internally consistent.

The study used an independent t test to examine whether Chinese international university students' adventure motivations differ significantly by gender. It is seen that female students place more importance on "exciting experience". Comparing the differences in adventure motivations among the different demographics, the results received from the one-way ANOVA showed that there is no significant difference among the groups according to age groups, or education levels. Similarly, no difference was recorded in relation to the travel frequency of the students. The consequences of the one-way ANOVA showed there existed significant differences between the main travel companions on the "achievement and risk taking" dimension, and significant differences between the main travel purposes on the "achievement and risk taking", "novelty and knowledge seeking" and "exciting experience" dimensions.

CHAPTER 6: CONCLUSION

The aim of this research is to understand China-born international university students' adventure motivations in New Zealand. The study first described the objectives and background of the study. Second, a summary of the previous studies that can support this project was provided in the literature review. Third, the research procedure and the instrument used to collect the data were delineated in detail. Finally, the results obtained were analysed using appropriate methods, and were then discussed. The study adopted the relevant motive concepts to categorise the 20 motivation items found for Chinese overseas students' adventure motivations, and specifically found that the students were stimulated by the power of an internal drive to engage in recreational adventure activities.

6.1 Summary of Results

The results of this research provide a significant perspective regarding the motivation for participating in adventure tourism among China-born international students in New Zealand. The evidence shows that overseas students are an important target segment for adventure recreation products. The China-born international university students' foremost motivations for engagement in different adventure recreation activities are "I have never experienced it before", "experience new and different lifestyle" and "do something exciting and thrilling" reasons. Due to the outcomes of the motivation classification, the participant students' interest in adventure tourism is determined by intrinsic motivations. Among the first eight dominating motives, there are seven items classified as the intrinsic driving forces. It may be suggested that they represent a stable segment which is not influenced by extrinsic motivations. Further, they could indicate a growing market in the future for adventure activities, and it is crucial to encouraging students to become continuously involved in adventure tourism. This may assure future success of adventure recreation products and destinations.

Another major finding from the analysis of Chinese overseas university students' travel motivations' analysis is that four domain motivations for participating in adventure activities were found, namely; (1) "achievement and risk taking", (2) "ego enhancement", (3) "novelty and knowledge seeking" and (4) "exciting experience". This finding is the result of the first attempt to examine country-specific student information in the New Zealand adventure tourism industry. The study examined the impact of respondents' demographics (e.g., gender, age, study level and travel frequency) and travel characteristics (travel companion, adventure travel frequency, the main travel purpose, recommendation, the most important influencer and price acceptance) on dimensions of their adventure motivations in New Zealand. The results showed that age groups, study levels, travel frequency, adventure travel frequency, recommendation and price acceptance do not influence adventure motivational dimensions. The study did, however, discover significant differences in relation to gender, travel companions and the main travel purposes. It also suggested that gender influences the one factor of "exciting experience". Female China-born students place more importance on "exciting experience" than males do. Additionally, the motive factor "achievement and risk taking" is influenced by the choice of travel companions, and the different main travel purposes have effects on the factors "achievement and risk taking", "novelty and knowledge seeking" and "exciting experience". Moreover, general travel frequency has an impact on adventure travel frequency and main travel purpose.

In addition, most of the respondents suggested that they take pleasure in travelling with their own friends and adopting a self-drive travel pattern in New Zealand. They preferred having a tour to interesting tourist destinations with a small number of people, and making travel arrangements on their own. In terms of their decision making, the main information sources for the respondents are "advice from friends", WeChat moment, Google/Baidu and Weibo. Among them, recommendation from friends is ranked first by participants, as they suggested the adventure experience and feelings from friends are trustworthy. WeChat and Weibo may be regarded as the new

novel approaches for receiving travel information. An increasing number of Chinese young people use WeChat and Weibo to share photos, broadcast messages, upload videos, play games and communicate with others.

These results demonstrate that the investigation makes a contribution to academic theories and empirical research as well as to practices in the tourism industry. For academia, the findings fill a gap in the tourism literature due to there being no prior fundamental study of student adventure motivations to visit New Zealand, nor any analysis of overseas student recreational adventure motivation. Furthermore, this study enriches and expands the literature of market segmentation studies, as it selects New Zealand as a case and offers a first attempt to analyse and explicate student adventure motivations. The New Zealand tourism industry can use the different motivations found in this study when positioning future promotions. In the meantime, travel service qualities, especially regarding safety, can be underlined to minimise possible worries that potential adventure tourists may have.

6.2 Delimitations of This Study

This study was delimited to Chinese overseas students who were born in China, are currently studying in a university in New Zealand, and have experienced recreational adventure activities in New Zealand. Only participants who were 18 years of age or older were eligible to participate. Regarding geographical limitation, the target sample group was selected only from New Zealand's main islands. Data were collected from 16 May to 12 June during daylight hours. The respondents had sufficient English reading skills to completely understand the research instrument. All Participant Information Sheets and questionnaires were designed in English and the survey was conducted in several representative and popular adventure attractions and universities in New Zealand that have a large number of China-born international university students.

6.3 Implications for Future Studies

There is no previous empirical study on China-born international university students' adventure motivation in the student market. In future, a confirmatory factor analysis could be employed to verify the adventure motivations of students determined in this study, in order to further examine its consistency and reliability. This investigation was a case study of adventure destinations in New Zealand, which can be referenced by other related research. Future studies could use similar methods to test student adventure motivations in other destinations, or to examine student groups who come from other countries and travel to the same destinations. Discovering the demographics and travel characteristics that influence adventure motivations and classifying these motivations can be applied to adventure tourism market segmentation studies. As some recreational adventure activities, such as skiing, are seasonal activities, decisions about engaging in recreational adventure activities could be affected by the season. Thus, it is necessary to conduct further surveys in future.

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APPENDIX A: SURVEY INSTRUMENT

Questionnaire



Motivations of Chinese-born international students in New Zealand universities to experience adventure tourism activities

This questionnaire examines Chinese-born international students' motivations for their participation in adventure tourism. There are two parts: personal adventure travel information; adventure experience motivations. Answering requires 10-15 minutes of your time. By completing the questionnaire you indicate your consent to participate in the research.

Part 1: Personal Adventure Travel Information

For these questions please tick the most appropriate box

1. Gender

Male

Female

Other

2. Age:

18-25

26-30

31-35

3. What level of study are you at?

1st year undergrad

2nd year undergrad

3rd year undergrad

Diploma or Certificate

BBS (honors) or PG Diploma

Master or PhD

4. How often do you travel in New Zealand each year?

0 trips

1-2 trips

3-4 trips

> 5 trips

5. Where do you usually get adventure travel information prior to departure? (Multiple choices)

Facebook

Renren web

Google/Baidu

- | | | |
|--|---|---|
| <input type="checkbox"/> Twitter | <input type="checkbox"/> Weibo | <input type="checkbox"/> Wechat(moment) |
| <input type="checkbox"/> Advice from friends | <input type="checkbox"/> Newspapers/magazines | <input type="checkbox"/> Guide book |
| <input type="checkbox"/> Advice from family | <input type="checkbox"/> Travel agent | <input type="checkbox"/> TripAdvisor |
| <input type="checkbox"/> I-site | <input type="checkbox"/> Other, specify: | |

6. Which of the following adventure activities have you done in New Zealand? (Multiple choices)

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Bungyjumping | <input type="checkbox"/> Sky diving | <input type="checkbox"/> Jet Boating |
| <input type="checkbox"/> Canyoning | <input type="checkbox"/> Rafting | <input type="checkbox"/> Parasailing |
| <input type="checkbox"/> Caving | <input type="checkbox"/> Climbing | <input type="checkbox"/> Abseiling/Rappelling |
| <input type="checkbox"/> Zip Lining | <input type="checkbox"/> Paragliding /hang gliding | <input type="checkbox"/> Other, specify: |

7. Which **ONE** would you like to try that you haven't done? (Single choice)

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Bungyjumping | <input type="checkbox"/> Sky diving | <input type="checkbox"/> Jet Boating |
| <input type="checkbox"/> Canyoning | <input type="checkbox"/> Rafting | <input type="checkbox"/> Parasailing |
| <input type="checkbox"/> Caving | <input type="checkbox"/> Climbing | <input type="checkbox"/> Abseiling/Rappelling |
| <input type="checkbox"/> Zip Lining | <input type="checkbox"/> Paragliding /hang gliding | <input type="checkbox"/> Other, specify: |

8. Which **ONE** would you do again because you liked it so much? (Single choice)

- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Bungyjumping | <input type="checkbox"/> Sky diving | <input type="checkbox"/> Jet Boating |
| <input type="checkbox"/> Canyoning | <input type="checkbox"/> Rafting | <input type="checkbox"/> Parasailing |
| <input type="checkbox"/> Caving | <input type="checkbox"/> Climbing | <input type="checkbox"/> Abseiling/Rappelling |
| <input type="checkbox"/> Zip Lining | <input type="checkbox"/> Paragliding /hang gliding | <input type="checkbox"/> Other, specify: |

9. Which would you encourage others to do? (Multiple choices)

- | | | |
|---------------------------------------|-------------------------------------|--------------------------------------|
| <input type="checkbox"/> Bungyjumping | <input type="checkbox"/> Sky diving | <input type="checkbox"/> Jet Boating |
| <input type="checkbox"/> Canyoning | <input type="checkbox"/> Rafting | <input type="checkbox"/> Parasailing |
| <input type="checkbox"/> Caving | <input type="checkbox"/> Zip Lining | <input type="checkbox"/> Climbing |

Paragliding /hang gliding Abseiling/Rappelling Other, specify:

10. With whom do you usually travel on your adventure trip?

Myself only Travel Group Family Friend/s

11. How often do you travel each year in New Zealand just to experience any of the above adventure activities?

0 trips 1-2 trips 3-4 trips >5 trips

12. What is your main purpose when traveling in New Zealand?

Travelling for general reasons (such as to see the country)

Travelling for general reasons such as to see the country, but also do an adventure activity when at a destination

Travelling just for adventure activities

13. Would you recommend New Zealand as an adventure-tourism destination to your friends and relatives?

Yes No

14. Who influences you the most to participate in adventure activities in New Zealand?

Self Friend/s Relative/s

15. In generally, do you think the prices of adventure activities in New Zealand are acceptable?

I think so. I can accept the price. Some are reasonable, some are not.

I don't think so. The prices are too expensive. I don't care.

Part 2: Adventure Experience Motivation

This set of questions seeks to understand why you take part in adventure recreation activities. The approach emphasizes understanding motivation. When you are answering the questions, please think why you like to take part in adventure recreation activities and please circle the number based on how much you agree with the statement.

Scale: 1=very unimportant; 2=somewhat unimportant; 3= neither unimportant nor important; 4=somewhat important; 5 = very important

<i>In your opinion, what aspects are important for an activity to be adventurous?</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Has to be exciting (gives me a thrill/adrenaline rush)	1	2	3	4	5
Has to be risky (something could go wrong)	1	2	3	4	5
Has to be in a remote area	1	2	3	4	5
Has to be something that impresses my friends with	1	2	3	4	5

<i>Why do you participate the adventure tourism activities?</i>		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1	Experience new and different lifestyles	1	2	3	4	5
2	Do something exciting and thrilling	1	2	3	4	5
3	See the world and experience a new culture	1	2	3	4	5
4	Meet new and different people	1	2	3	4	5
5	Share experiences with friends back home	1	2	3	4	5
6	Have an adventure	1	2	3	4	5
7	Travel on low cost	1	2	3	4	5
8	Learn new things and increase my knowledge and skills	1	2	3	4	5
9	Enjoy different scenery	1	2	3	4	5
10	I have never experience it before	1	2	3	4	5
11	None of my friends have done it before	1	2	3	4	5
12	Test myself	1	2	3	4	5
13	To be physically and emotional challenged	1	2	3	4	5
14	For the sense of accomplishment	1	2	3	4	5
15	To face the risk and danger	1	2	3	4	5
16	For the friendship(s)	1	2	3	4	5
17	To show other people my skills	1	2	3	4	5
18	For self-expression	1	2	3	4	5
19	To be in control and make decisions	1	2	3	4	5
20	To use my equipment	1	2	3	4	5

Thank you very much again for your participation in this important survey.

APPENDIX B: PARTICIPANT INFORMATION SHEET

Participant Information Sheet



Dear Chinese student:

My name is Jinglan (Louise) Lou. I am a Masters student who majors in International Hospitality Management at Auckland University of Technology (AUT). Now, I am doing my dissertation on the topic “analysis of adventure tourist motivation: The case of Chinese-born international students in New Zealand University”. This letter is to invite your participation in this research. The purpose of this research is to assist me to complete the dissertation of Master degree. The survey aims to understand the adventure motivation and adventurous experiences of Chinese-born international university students in New Zealand. From the survey results, I am trying to find the importance of emotional in motivation to take part in adventure activities. Thank you very much for your participation in this important survey. I greatly appreciate your cooperation!

Date Information Sheet Produced:

10.03.2014

Project Title

Analysis of adventure tourist motivation: The case of Chinese-born international students in New Zealand Universities.

An Invitation

This research will assist in completion of a dissertation in a Master of International Hospitality Management degree, and you are invited to participate in the above outlined research project. You have been selected to participate in a study on adventure tourists’ motivation. Sharing your thoughts on adventure travel experiences and interests will assist in my research related to travel. The questionnaire will be completed last about 10 -15 minutes, and you may withdraw from the survey at any time. Thank you very much for your participation in this important survey. I greatly appreciate your cooperation!

What is the purpose of this research?

The survey aims to understand the adventure-based motivation and adventurous experience of Chinese-born international university students in New Zealand.

How was I identified and why am I being invited to participate in this research?

This survey is to be completed by Chinese-born international university students who have are motivated to seek adventure in New Zealand tourism. If you are 18 years of age or older, please complete this survey.

What will happen in this research?

If you decide to participate in this research, it will take you about 10 -15 minutes to complete the questionnaire and return it.

How will my privacy be protected?

Under the Privacy Act 1993 the researcher undertakes that the information supplied by the participant will be held securely. Therefore, your responses will be anonymous and your privacy will be protected to the maximum extent allowable by law. All responses will be strictly confidential, and they will be recorded in an aggregated form. Moreover, your completed questionnaire will be destroyed after the data from the questionnaire is used. The result only will be reported in the form of a group instead of individual results.

What are the costs of participating in this research?

There are no any costs of participating apart from the participants' time (about 10 - 15 minutes).

What opportunity do I have to consider this invitation?

You indicate your voluntary agreement to participate by completing and returning this survey.

How do I agree to participate in this research?

By confirming you want to participant.

Will I receive feedback on the results of this research?

If you would like to see a general overview of the result, you can search the researcher's name on Scholarly Commons on AUT website.

<http://aut.researchgateway.ac.nz/>

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Charles Johnston, charles.johnston@aut.ac.nz, ph: +64 09 921 9999 ext. 5120.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, Kate O'Connor, ethics@aut.ac.nz, 921 9999 ext. 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

Lou, Jinglan, Auckland University of Technology, ph.: 0212477073, email:elflan0604@gmail.com.

Project Supervisor Contact Details:

Dr Charles Johnston, Auckland University of Technology, ph: +64 09 921 9999 ext. 5120,
email: charles.johnston@aut.ac.nz.

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted,*

AUTEC Reference number *type the reference number.*