UNDERSTANDING THE MOTIVATIONS OF BICYCLE TOURISTS IN NEW ZEALAND: THE CASE OF THE HAURAKI RAIL TRAIL

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ABSTRACT

This research looks at the motivation of bicycle tourists in New Zealand, and the underlying factors that motivate them. Cycling is a developing mode of vacation transportation and bicycle tourism is a growing niche market in the tourism sector. It is clear that with the development of bicycle tourism, New Zealand, as the travel destination, has received many benefits, such as economic, social and environmental benefits (Ministry of Business, Innovation & Employment, 2013). Many tourists engage in some sort of cycling activity while traveling around New Zealand, to explore the country and enjoy the scenic environmental surroundings. The majority of previous studies on bicycle tourism is based in European research, such as the UK and France, and only a few focus on the South Island in New Zealand.

For this study, a quantitative approach was adopted to analyse the motivation of bicycle tourists in New Zealand. An anonymous questionnaire with four parts was designed to collect data then analysed to discover different motivations for bicycle tourism in New Zealand, and the convenience sampling method was used in this study. A total of one hundred and two participants were included in this research. Christmas Holiday in 2014, and Auckland Anniversary in 2015 were chosen to be the survey time for this study.

The results showed that the most important ‘push’ motivation factors for bicycle tourism in New Zealand were related to adventure experiences and the great environment, while the most important ‘pull’ motivation factors for bicycle tourists were all related to safety and the trail itself. The results of this study illustrate that the motivational factors of bicycle tourists in the Hauraki Rail Trail differ from previous studies. The most significant push factor is ‘Adventure and Sports’ and the most important pull factor is related to the trail itself. This research also found some significant differences in bicycle tourism motivation factors among the sample characteristics. This study

determined that male cyclists, cyclists who use the tour coach as their main form of transport, and cyclists who stay at hotels, can all be regarded as a niche in the tourism market.

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), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

SIGNATURE:

DATE:

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ETHICS APPROVAL

As this study used questionnaires that included human participants, ethical approval was required from the AUT Ethics Committee (AUTEC).

The Application for Ethics Approval (EA1 Form), attached with the Participant Information Sheet and questionnaire, was submitted in May 2014. On 27 May 2014, the Application for Ethics Approval was approved by AUTEC with AUTEC reference number 14/165.

CONFIDENTIAL MATERIAL

In order to protect the privacy and confidentiality of participants, an anonymous questionnaire was used and they were not asked for any personal details. The questionnaires were securely stored, accessible only to the Primary Researcher. All the data will be destroyed after 6 years by confidential and secure document destruction process.

CHAPTER 1 STARTING THE RIDE

1.1 Introduction

Bicycles was an increasingly important mode of vacation transportation (Ritchie, 1998), and bicycle tourism had gained popularity in European countries, such as France and Denmark (Lumsdon, 1996; Simonsen & Jorgenson, 1996; Ritchie, 1998; Lumsdon & Page, 2004). According to Ritchie (1998) over 15% of the French population cycled for leisure, and Simonsen and Jorgenson (1996) found that around 22% of the Dutch cycled during their vacations. Bicycle tourism generates over 44 billion Euros every year in Europe (Adventure Cycling Association, 2012). In New Zealand, cycling is not only a popular activity for tourists, but also a fantastic way to explore s country. In 2009, the New Zealand government proposed the New Zealand Cycleway (NZC) to create a high quality tourism asset, to enhance New Zealand's competitiveness as a tourism destination, and to stimulate long-term economic benefits. The NZC, also known as Nga Haerenga, is a network of 23 cycle trails based around New Zealand's iconic attractions (Ministry of Business, Innovation & Employment, n.d.). According to the Ministry of Tourism (2009), 356,900 domestic and international tourists participated in cycling activities during their trips in New Zealand in 2008. The majority were domestic tourists, while 12% of cycling tourists (42,100) came from different countries all over the world. Since then, more international tourists are choosing to cycle during their stay in New Zealand. As reported by New Zealand Tourism (2013), 318,000 international tourists cycled from 2008 to 2012 when they were in New Zealand - it is clear that more and more people tend to cycle while traveling around New Zealand. The growth of free and independent travelers (known as FITs), shows that more and more tourists were willing to attend active vacations (Schieven, 1988) and many international tourists would consider New Zealand as the perfect destination for cycle tourism. Therefore, determining how to attract more tourists to cycle during their vacation in New Zealand has become a critical question for the government, local councils, tourism operators, and other stakeholders. Compared with other kind of travellers, cycling

tourists spend more time in a destination, especially smaller places and regions (Ritchie and Hall, 1998); Parker (2009) mentions that cycling tourists stay almost three times as long as other tourists and spend 1.6 times more than others. Every year, around 4% of international visitors participate in some kind of cycling activities during their trip to New Zealand (New Zealand Tourism, 2013). The Ministry of Business, Innovation & Employment (MBIE) (2013) mentions in the *Nga Haerenga: The New Zealand Cycle Trail Evaluation Report* that almost 25% of tourism operators and stakeholders claim that the cycling trails have had positive effects for their business and around 50% of businesses consider the cycling trails beneficial to them in the foreseeable future. Thus, many countries are paying more attention to providing better cycle route networks, such as the official U.S. Bicycle Route System (USBRS) and the New Zealand Cycleway (NZC) (Adventure Cycling Association, 2012). In some countries, deserted rail ways have been used as cycle ways, such as Hornsea Rail Trail in UK, and New Zealand's Central Otago Rail Trail and The Hauraki Rail Trail.

Bicycle tourism is an emerging form of travel that usually takes place in rural areas (Lane, 1994). With cycling as a developing mode of vacation transportation, bicycle tourism is a rapidly growing niche market in the tourism sector. European countries such as the UK, Denmark, and France, found that the increasing sales and use of bicycles were directly related to the development of bicycle tourism (Lumsdon, 1996; Simonsen & Jorgenson, 1996; Ritchie, 1998; Lumsdon & Page, 2004), and tourism operators realized that it was essential to understand the motivation of bicycle tourism in order to keep the development sustainable in the long term.

1.2 Travel Motivation

The travel decision making process can be divided into six stages, with motivation as the first stage (Mansfeld, 1992). Then the tourists collect information about the destination, evaluate, and eliminate some destination alternatives. After travellers chose their travel destination, they then plan

and go for the actual travel. The final step of the process is the assessment of destination choice, which is based on travellers' satisfaction, and affects travel motivation in the future. Hence, it is imperative to understand motivation in tourism, because motivation is the beginning of travel (Parrinello, 1993; Hsu & Huang, 2008). Crompton (1979), and McIntosh and Goeldner (1990) indicate that the understanding of tourist motivation is very important because different motivations classify tourists and segment the tourism market. Thus, understanding travel motivation helps travel destinations provide better services to satisfied tourists (Gee, Choy & Makens, 1997). Academics and destination marketers are both interested in tourist motivations because they explain why people travel and how a destination can best fulfil their needs (Dolnicar, 2008; Park & Yoon, 2009). Previous researchers on tourist motivation have explored some similarities and differences between multiple groups. McLellan and Fousheran (1983), as well as Pizam and Sussmann (1995), analyzed that cultural differences influence the travellers' perspectives of travel, whereas, Richardson and Crompton (1988), and Sussmann and Rashcovsky (1997) considered the differences between various nationalities visiting the same destination. Baloglu and Uysal (1996), and Bieger and Laesser (2002) argue that tourists travel for different reasons, and choose a destinations for their different appeals.

The understanding of travel motivation is based on motivation frameworks and the most commonly used theory of motivation is Maslow's Hierarchy of Needs (1943). Based on Maslow's study, a new theory of travel motivation called the Travel Career Pattern (TCP) was developed (Pearce & Caltabiano, 1983; Moscardo & Pearce, 1986; Pearce, 1988; Pearce, 1993, 2005; Ryan, 1998). Other useful motivation frameworks include psychographic personality types (Plog, 1974, 2001), push and pull theory (Dann, 1977) and the two dimensional tourist motivation model (Mannell & Iso-Ahola, 1987). Even though different researchers have their own choices of motivation frameworks, most tend to use push and pull factors theory (McGehee, Loker-Murphy & Uysal, 1996; Pan & Ryan, 2007). However, no one has study the motivations of bicycle tourist in New Zealand by using push and pull theory.

1.3 The Aim and Objectives of this research

The majority of previous studies of bicycle tourism were located in European countries, such as the UK and France, and these studies were either unpublished or not accessible to the researchers. Only a few focus on New Zealand (South Island). Moreover, there is no published study on the motivations of bicycle tourism in New Zealand based on the push and pull theory; this research is going to fill in this academic void. The aim of this study is to understand the motivations of bicycle tourism in New Zealand. More specifically, it will analyse the significant difference in bicycle tourism motivation factors among the sample characteristics based on push and pull theory.

The objectives of this study are listed below in order to achieve the aim:

1. To identify the main characteristics and demographics of bicycle tourists in New Zealand, in order to gain an idea of who cycle tourists are in New Zealand.
2. To investigate the main push and pull motivations, and understand why tourists participate in cycling activities while traveling in New Zealand, and to classify these motivations into different underlining factors.
3. To examine whether the significant difference in bicycle tourism motivation factors among the sample characteristics in order to provide better products to serve the bicycle tourism market segment.

1.4 Research Significance

It is clear that with the development of bicycle tourism, New Zealand, as the travel destination, has received many benefits. Many tourists engage in some sort of cycling activity while traveling in New Zealand to explore this country and to enjoy the scenic environmental surroundings. Firstly, this research examines whether there are any significant differences in bicycle tourism motivation

factors among the sample characteristics, which is a new topic to academia because it has not been studied or published before. Secondly, this study will firstly provide a basic understanding of bicycle tourists in New Zealand, including their demographic information and travel habits. Last but not least, this study identifies the main motivations for why tourists participate in some sort of cycling activity while traveling around New Zealand. This research is therefore of significance to local tourism development, as well as to the New Zealand government, tourism operators, and other stakeholders. Hence, this study will bridge the gap between the 'real world' and 'academia'. In summary, understanding the motivations of bicycle tourism would benefit the New Zealand government, tourism operators, and other stakeholders, enabling them to provide better products and services to serve this specific market segment.

1.5 Research Methodology

This research adopts a quantitative method to analyze the different motivations of bicycle tourism in New Zealand. During the Christmas Holiday in 2014, the researcher visited Waikino and Thames, which are two entry/exit points of the Hauraki Rail Trail. To obtain more data, the researcher visited Thames again from 24 to 26 January 2015, which was a long public holiday weekend. In order to achieve the aims of this research, an anonymous self-administered questionnaire was used to collect the basic data. The participants either handed back their completed questionnaires on-site to the researcher, or chose to complete them at their leisure, and then post them back in prepaid envelopes. In total, one hundred and two completed responses were collected and used in this research. All collected data was analyzed with SPSS Statistics Software version 20, a statistical computer software package. The four main tests in this study were descriptive analysis, cross tabulation, factor analysis, and one-way ANOVA. Firstly, descriptive analysis and cross tabulation were used to analyse the characteristics of participants, then factor analysis was employed to examine the push

and pull motivation factors. Finally, the one-way ANOVA explored the differences between tourism motivations and demographic variables and bicycle travel characteristics.

1.6 Overview of the Research

This study is divided into six chapters. The outline of the structure of this research is listed below. Chapter Two describes the background of bicycle tourism by analysing selected academic literatures and published bicycle tourism marketing reports. It also provides some basic information about bicycle tourists in New Zealand, including demographics, characteristics, and travel preferences.

Chapter Three is a literature review on travel motivations. The first part of this chapter reviews the literature on travel motivation and some motivation frameworks (especially the push and pull theory), followed by reviews on bicycle tourism motivations and the gender differences in travel motivations.

Chapter Four explains the methodology of this study. After describing the epistemological position, this chapter analyses the data collection process by discussing the participants, survey instruments, samples, survey sites, and time frames. Data analysis processes are also be explained in this chapter. The last part of this chapter looks at the limitations and ethical issues throughout the research.

Chapter Five contains the data analysis and describes the findings. Demographic information and travel preferences are used to identify the characteristics of bicycle tourists in New Zealand. The main push and pull motivations for travellers to cycle while in New Zealand and the underlying factors of these motivations are illustrated in this chapter as well. The results of one-way ANOVA then explores the differences between tourism motivations and demographic variables, and bicycle travel characteristics. The findings of this study will provide a better understanding of bicycle tourism motivations in New Zealand by comparing with previous research.

Finally, Chapter Six, the conclusion of this study, discusses the implications for future research in order to provide a better understanding of bicycle tourism in New Zealand.

CHAPTER 2 WHO IS ON THE BIKE?

2.1 Introduction

Bicycle tourism became very popular in some European countries in the 1990s, during which some studies were completed. However, bicycle tourism has not been discussed much in recent years, causing an academic void. By using secondary sources, such as government reports, market reports, and relevant news items, this chapter provides an understanding of bicycle tourism by discussing different definitions, exploring who the bicycle tourists are and exploring the market segments of bicycle tourism. Further, this chapter also discusses the characteristics of bicycle tourists and their travel preferences in New Zealand, to gain a better understanding of the cycling tourists.

2.2 Bicycle Tourism

Nature-based tourism and adventure tourism had achieved impressive development, because tourists combined travel activity with their leisure interest (Tabata, 1989; Millington, 2001). Bicycle tourism developed dramatically in some European counties, such as France and Netherlands, according to Ritchie (1998) over 15% of the French population cycled for leisure; Simonsen and Jorgenson (1996) also indicated that around 22% of the Dutch cycled during their vacations. Bicycle tourism was a developing form of travel that usually took place in rural areas (Lane, 1994), and Ritchie (1998) later also mentioned that the bicycle was becoming an increasingly important mode of vacation transportation. Thus, cycling as a developing mode of vacation transportation, was giving rise to bicycle tourism as a growing niche market in the tourism sector.

2.2.1 Sport Tourism

The growth of FITs indicated that more tourists were willing to participate in active vacations (Schieven, 1988). In 1998, Gibson analysed three categories of sport tourism: watching sporting events, visiting sports-related attractions, and active participation (Gibson, 1998). Sport tourism refers to travelling to attend a particular sport event, watching a sport game (Travel Industry Dictionary, n.d.) or touring of a sporting facility (Commonwealth Department of Industry Science and Resources, 2000). Gammon and Robinson (2003) further separated sports tourism into two categories: 'hard definition' and 'soft definition'. According to their study, 'hard definition' means that sport acts as a secondary reinforcement during travelers' trips, while 'soft definition' means that sport is only a small part of the trip, or that tourists are only participating in sports by chance during their trip. In Australia, sport tourism has been divided into two groups: domestic sport tourism, and international sport tourism (Commonwealth Department of Industry Science and Resources, 2000). Domestic sport tourism represents any sport-related trip of over 40 kilometers and with at least one night away from home, whereas international sport tourism includes any trip to Australia to participate in a sport activity. On top of these definitions, Ritchie (1998) also states that sport tourism is organized, may involve the use of transport support services, and lodging in any type of formal and/or informal accommodation.

2.2.2 Bicycle Tourism as a Form of Sport Tourism

As cycling itself is a sport, bicycle tourism can be seen as a category of sport tourism. Therefore, based on the definition of sport tourism, bicycle tourism can be considered as tourism that involves watching or attending a cycling event, or participating in independent or organized cycle touring (Ritchie, Tkaczynski and Faulks, 2010). Organized events and travelling to observe bicycle racing events are also included in bicycle tourism (Lamont, 2009). Sustrans (1999) defined bicycle tourism as "recreational visits, either overnight or day visits away from home, which involve leisure cycling

as a fundamental and significant part of the visit" (p. 1); Ritchie (1988) also added that whether cycling or non-cycling, bicycle is an integral part of the trip.

Lumsdon (1996) claimed that bicycle tourism involved recreational cycling activities during a day or part-day casual trip during a long distance travel holiday, and he also analyzed the different types of bicycle tourism, such as day touring (home based mountain bikers, day event), cycle hirers (casual, holiday makers), pre-planned cycle touring (independent, organized), DIY touring holidays (independent) and centre holidays (independent, organized). This definition however does not include those who go mountain cycling for a day trip, because these are considered 'excursionists' rather than tourists. Although bicycle tourism includes organized tours, the majority of bicycle tourists prefer independent trips or DIY touring, where cyclists can plan their own cycling routes and book accommodation by themselves; they also tend to use their own bikes instead of hiring from tourism operators (Beioley, 1995).

World Tourism Organization (1991) considered 'tourists' as travellers who had been away from where they normally live for at least 24 hours or one night. Based on this definition, Ritchie (1998) defines a bicycle tourist as "a person who is away from their home town or country for a period not less than 24 hours or one night, for the purpose of a vacation or holiday, and for whom using a bicycle as a mode of transport during this time away is an integral part of their holiday or vacation. This vacation may be independently organized or part of a commercial tour and may include the use of transport support services and any type of formal and/or informal accommodation" (p. 568). A recreational cyclist is also defined by Ritchie (1998) as " a person involved in any recreational cycling activity or excursion, which is undertaken within a time period not longer than 24 h or one night from their home destination, and for whom cycling is seen as a positive way of using leisure time " (p. 569). According to these definitions, the main difference between a 'bicycle tourist' and 'recreational cyclist' is how long they spend on the trip, thus, the definition of bicycle tourism excludes cyclists who travel less than 24 hours. By contrast, both the New Zealand Ministry of Tourism (2009) and New Zealand Tourism (2013) do not consider the length of cycling time in

their definition of cycling tourism, according to their studies, any form of tourism can be considered as cycling tourism as long as it involves some sort of cycling activity or sport at least once during the entire trip in New Zealand.

2.3 Bicycle Tourists

As discussed by researchers, bicycle tourists use the bicycle as their main mode of travel transportation. According to the Countryside Commission (1995), bicycle tourists take self-organized trips mainly because they want to cycle on a trip that would be longer than just overnight, and travelers who choose packaged travel products are excluded. Simonsen and Jorgenson (1996) believe that bicycle tourists are those who sometimes use their bicycles as a mode of transportation during their entire holiday trip, and that cycling is an important part of their vacation, regardless of where they come from. According to their study, locals who cycle for recreation are not considered bicycle tourists, and those people who cycle for competitive racing are also excluded from this definition as sport would be their main purpose for cycling as opposed to a holiday. However, domestic cycle tourists could still be considered bicycle tourists. In contrast, the Ministry of Tourism (2009) and New Zealand Tourism (2013) define cycling tourists as both domestic and international travellers who attend any sort of cycling activity or sport at least once during their trip in New Zealand. Simonsen and Jorgenson (1996) pointed out that bicycle tourists were a homogenous group as they would be engaging in common activities, however, Collins and Absher (1996) argued that people who participate in a recreational activity were not considered a homogeneous group. Thus, background, expectations, attitudes, and motivations can be considered as defining the difference between different bicycle tourist types (Ritchie, 1998).

Simonsen and Jorgenson (1996) defined different types of cycle tourists by bicycle usage during their entire vacation. At one end of the continuum are the cycling enthusiasts, hard core cyclist who regard the bicycle as the only mode of transport, plan to cycle throughout their entire vacation. At

the other end of the continuum are the occasional cyclists, who may sometimes ride bicycle during their entire trip and to them the bicycle is a mode of transport to explore a place during good weather. According to Simonsen and Jorgenson (1996), most bicycle tourists in Denmark fall between ‘cycling enthusiast’ and ‘occasional cyclist’, on the continuum, whereas Ritchie (1998) points out that most bicycle tourists in the South Island of New Zealand are closer to cycling enthusiasts.

The South Australian Tourism Commission (2005) further classifies cycle tourists into three categories: the dedicated, the interested and the incidental/opportunistic. Since bicycle tourism could involve different levels of activities, bicycle tourists are not necessarily part of a group; thus, cycle tourists may have different motivations and would require different types of travel products (Ritchie, Tkaczynski and Faulks, 2010).

Ritchie (1998) also grouped bicycle tourists into two market segments: ‘short break’ or ‘longer break' holiday cyclists. In Western countries, most bicycle tourists are short break holiday cyclists, but by contrast, cyclists tend to spend more time in New Zealand, for example, over half cycling tourists tend to spend at least 20 days in New Zealand, while most other tourists stay for less than 10 days in New Zealand (New Zealand Tourism, 2013). It can then be concluded that, the New Zealand bicycle tourism market is made up of ‘long break’ holiday cyclists.

2.4 Bicycle Tourists in New Zealand

Ministry of Tourism (2009) and New Zealand Tourism (2013) reported that over than 60% of international cycling tourists came to New Zealand for holiday (the most common reason), while almost 30% came to visit friends and relatives. The New Zealand Tourism (2013) study indicated that the majority of bicycle tourists in New Zealand were domestic tourists (88%) who preferred mountain biking to on-road cycling. The study also found that international cycling tourists mainly came from Australia, the UK, America, Germany, Canada and Netherlands. As shown in Table 1,

Ireland, Japan, France and Denmark are the other countries that cyclists commonly come from. Furthermore, this study mentioned that 6.2 million Chinese visitors were looking forward to cycling while traveling in New Zealand, followed by American, German, British, Australian and the Japanese visitors (New Zealand Tourism, 2013). According to this study, bicycle tourists also visit other places besides their cycling, with Auckland being the popular first choice; Canterbury, Queenstown, West Coast, Wellington, Rotorua, Nelson and Taupo are also very popular.

Table 1

Origins of current international cycling tourists, and potential cycling tourists.

Origins of international current cycling tourists		**Origins of potential cycling tourists**	
Country	Number		Number Origin (million)
Australia	21000	China	6.2
UK	13000	USA	4.2
USA	6600	Germany	1.1
Germany	4500	UK	0.9
Canada	2200	Australia	0.8
Netherlands	1500	Japan	0.6

Note. Retrieved from New Zealand Tourism. Copyright 2013 by New Zealand Tourism. Reprinted with permission.

2.5 Characteristics of Bicycle Tourists

Bicycle tourists are slightly different from other tourists and have their own characteristics. Various studies have defined the four main characteristics of cycling tourists.

2.5.1 Gender

Men make up the majority of cycling tourists, more males then females participate in cycle tourism (Ritchie, 1998; Bloy, n.d.; Ritchie, Tkaczynski & Faulks, 2010; New Zealand Tourism, 2013), stated reasons are that men are more likely to be motivated by physical activities and adventure than women (Mceczkowski, 1990; McGehee, Loker-Murphy & Uysal, 1996; Andreu, Kozak, Avci & Cifter, 2005; Perrett, 2007).

2.5.2 Age

Although the age range of bicycle tourists varies in different regions, bicycle tourists are generally quite young. For example, in the South Island of New Zealand, researchers found that the majority of international cycling tourists were young visitors, aged from 25 to 34 years, followed by youth aged between 15 and 24 years (New Zealand Tourism, 2013). Research by the Ministry of Tourism (2009) shows that the largest portion of international cyclists were aged from 25 to 34 years (33%) and 15 to 24 years (29%) , while most domestic cyclists were aged from 35 to 44 years (36%) and from 15 to 24 years (25%). However, in England, most bicycle tourists are over 45 years old, and the largest proportion in the age range is 45 to 59 years (Bloy, n.d.). The statistics for America are similar, with many middle-aged men cycling during their vacation (World Travel Market, 2014).

2.5.3 Experience

Bicycle tourists are likely to have had similar travel experiences before (Bloy, n.d.). According to Ritchie (1998), over 70% of cycling tourists had some kind of cycle tourism experience in the past. Cycling tourists are also usually interested in other kinds of adventure activities such as kayaking, rafting, climbing, horse riding, and sky diving (New Zealand Tourism, 2013).

2.5.4 High Level of Satisfaction

The overall satisfaction of both domestic and international cycling tourists in New Zealand is very high. Bicycle tourists from Ireland and France have the highest satisfaction tare with 9.4 out of 10, followed by tourists from the UK and Sweden (9.3/10); tourists from Israel have the lowest overall satisfaction rate (8.8/10) (New Zealand Tourism, 2013). The average satisfaction of on-road cycling is 7.1/10, and 8.4/10 for off-road cycling (Ministry of Tourism, 2009). Evidently, this study also shows that compared with on-road cycling, international cyclists are more satisfied with the off-road cycling experience in New Zealand.

2.6 Travel Preferences of Bicycle Tourists in New Zealand

Previous studies show that cycling tourists have many travel preferences, such as where to stay, who to travel with, and where to get information. The four main travel preferences of bicycle tourists in New Zealand are transport, accommodation, route, and group size.

2.6.1 Transport

According to New Zealand Statistics (2013 a; 2013 b), over two million domestic travelers participated in a cycle sport or activity with over six hundred thousand domestic travelers using the bicycle as their mode of transport. Higham (1996) claimed that 4.2% of tourists who travelled around the southern region of New Zealand used bikes as their main form of transportation during their trip. According to Ritchie (1998), half the bicycle tourists used transport support services. Among these services, the bus was the most popular, with over 80% of bicycle tourists using it, followed by trains, cars, boats, and then other services. Later in 2013, New Zealand Tourism (2013) found that the cars/vans have become the most popular choice of transportation for cycling tourists.

Scheduled coaches, airplanes, commercial ferrys/boats; and taxis were other common transport options, followed by walking/tramping, tour coaches, and camper vans.

2.6.2 Accommodation

Although cycle tourists spend more time and money at a destination, they still prefer cheaper forms of accommodation, such as commercial camping grounds, backpackers, Department of Conservation camp sites, and other camp sites (Simonsen & Jorgenson, 1996). According to New Zealand Tourism (2013), the most popular accommodation type for international cycling tourists is the private home (of friends/relatives), followed by backpackers, hotels, motels, and holiday parks/campground. By contrast, domestic bicycle tourists prefer to live in private dwellings, holiday parks, motels and rented dwellings (Ministry of Tourism, 2009).

2.6.3 Route

Lawson, Thyne and Young (1997) indicated that 5.4% of locals cycled during their most recent vacations, 2.7% attended off-road mountain biking, and 1.4% used bikes as their mode of transportation between towns. Sometimes, cyclists choose to use alternative routes, to avoid heavy traffic, and to enjoy the natural environment (Ritchie, 1998). According to his study, other factors that also influence route selection include avoiding headwinds, huge crowds of people, and wanting to ride through an important or historic route. A recent New Zealand Tourism (2013) study shows that 56% of international bicycle tourists prefer on-road cycling to mountain biking (off-road cycling), and 4% of them do both on-road and off-road cycling while traveling in New Zealand. However, 56% of domestic cycling tourist participate in mountain biking while the remainder prefer on-road cycling (Ministry of Tourism, 2009). Furthermore, the average satisfaction rate of

international cycling tourists who participated in mountain cycling was higher than those who attend on-road cycling (Ministry of Tourism, 2009).

2.6.4 Group Size

In European countries, tourists prefer to cycle with family, while in New Zealand the majority of cyclists travel alone or with a partner (Ritchie, 1998). Research shows that almost half of international tourists cycle alone, this is followed by cycling with a partner, family, friends and a tour group during their trip in New Zealand (Ministry of Tourism, 2009; New Zealand Tourism, 2013). Nearly 40% of international tourists travelled in pairs, but only 30% of domestic bicycle tourists travelled in pairs, with 54% of them choosing to travel with two or more people (Ministry of Tourism, 2009).

2.7 Summary

This chapter has provided an understanding of bicycle tourism by discussing the different definitions of bicycle tourism. It also described what a bicycle tourist is, and analysed the characteristics of bicycle tourists. In New Zealand, it was found that most bicycle tourists were men as males tend to be more motivated by physical activities and adventure. Compared with the European countries, New Zealand has more young tourists participating in cycling tourism, and bicycle tourists are likely to have had a similar travel experience before; they also tend to be interested in some other forms of adventure tourism in New Zealand, such as kayaking and rafting. Impressively, the overall satisfaction of both domestic and international cycling tourists in New Zealand is very high. Furthermore, this chapter discussed travel preferences of bicycle tourists in New Zealand in four aspects: accommodation, transport, route, and group size. In Chapter 5, the findings of this research will be compared with these aspects.

CHAPTER 3 WHAT MOTIVATES THEM?

3.1 Introduction

According to the study by the Ministry of Tourism (2009), the majority of cycling tourists in New Zealand are domestic travellers (88%) while the rest travel from other countries. More-and-more international tourists are cycling while in New Zealand, however, a total of 318,000 international tourists cycled when they were in New Zealand from 2008 to 2012 (New Zealand Tourism (2013), so it is clear that more people are choosing to cycle while traveling around in New Zealand, and many international tourists consider New Zealand a great destination for cycle tourism. Fodness (1994) pointed out that motivation was very critical, as it was the driving force behind consumption behavior, and hence tourism products should be designed and marketed to meet consumers' needs. Crompton (1979), McIntosh and Goeldner (1990) also proposed that the understanding of tourist motivation was imperative because different motivations classify tourists and segment the tourism market into different categories. Gee, Choy and Makens (1997) proposed that, in order to provide better service and travel destinations, tourism operators had to understand the motivation factors which led to consumption behaviour and destinations. By understanding tourist motivations, tourism operators could develop new tourism products and better customer services to suit travellers' needs (Fodness, 1994). Travel motivations are also useful for developing marketing activities, market segmentation, and travel/destination promotions (Parr, 1989; Zhang & Lam, 1999). Academics and destination marketers are both interested in understanding tourist motivations, because they explain why people travel and how a destination can best fulfill their needs (Dolnicar, 2008; Park & Yoon, 2009). Therefore, investigating ways to attract more tourists to cycle in New Zealand has become a critical question for the government, tourism operators, and other stakeholders.

This chapter reviews the literature published about travel motivation. It begins with five motivation theories used by other researchers to explain travel motivations, followed by literature reviews on bicycle tourism motivations, and gender differences in travel motivations. This chapter will end with a discussion of some underlying factors of travel motivation.

3.2 Theories of Motivation

In the 1960s, researchers realized the importance of motivation and started to study it (Li, 2007). The majority of studies of motivation are based on psychological, sociological and economic perspectives. According to Che (2014), the psychological motivation theories are mostly used for studies on travel motivation. The lists of theoretical reasons for travel are used to measure the benefits that the tourists are looking to gain through their travel experiences. For example, the Canadian Government Office of Tourism used a survey to segment the travel market in Florida (Fodness, 1994), the results of this study detailed the reasons that visitors go to Florida and eighteen benefits of a trip to Florida. Middleton (1994) argued that motivation must be related to personal needs and goals, and Fodness (1994) claimed that although motivation would not be the only factor to explicate travel behaviour, it would indeed be a significant driving force behind human behaviour.

The five theories of motivations commonly used to explain travel motivations are Maslow's Hierarchy of Needs Theory, Travel Career Pattern (TCP), push and pull theory, Two Dimensional Tourist Motivation Model, and Psychographic Personality Types of Traveller. These will be discussed in detail below.

3.2.1 Maslow's Hierarchy of Needs Theory

The most commonly used theory of motivation is Maslow's hierarchy of needs (1943). Maslow believed that five hierarchys of human needs: physiological needs, safety needs, love needs, esteem needs, and self-actualization needs as shown in Figure 1.

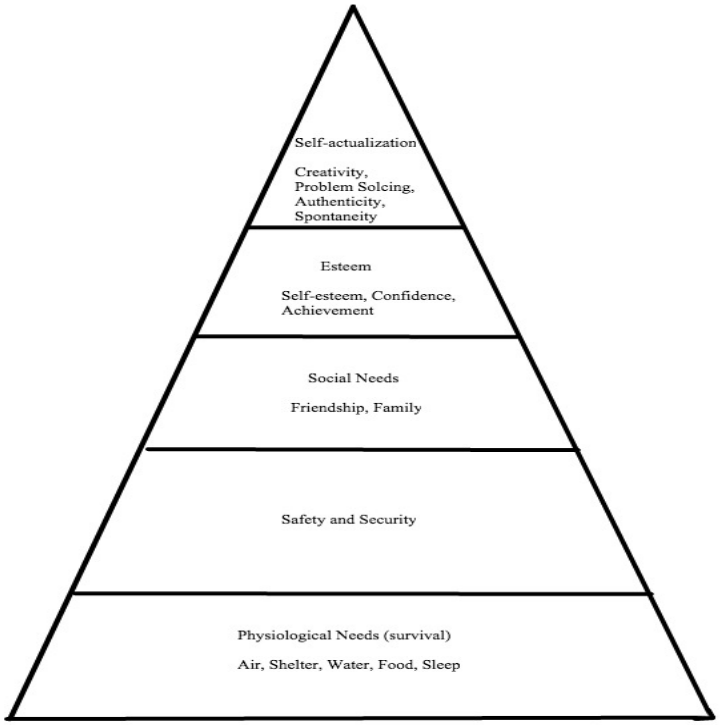

Figure 1. Maslow's hierarchy of needs. Retrieved from Communication Theory. Copyright n.d. by Communication Theory. Reprinted with permission.

Physiological needs are the physical requirements that we need in order to live; if these requirements are not met, people cannot survive. Thus, physiological needs are the most important and must be met first. After physiological needs are satisfied, people will consider safety problems. Safety needs do not only refer to personal safety and security, but also include financial security and health. Only after both physiological and safety needs are well satisfied, will people then move on to social needs, such as friendship, family and other emotional needs. Everyone has esteem needs, we want to be respected by others, as we also respect them. Self-actualization needs are the highest

level of human motivations. “What a man can be, he must be” (Maslow, 1943, p.383). According to Maslow (1943), in order to understand self-actualization needs, we must not only achieve the previous needs, but also master them.

3.2.2 Travel Career Pattern (TCP)

Based on Maslow’s study, Pearce (1988) developed a new theory of travel motivation called the Travel Career Pattern (TCP) approach, as shown in Figure 2.

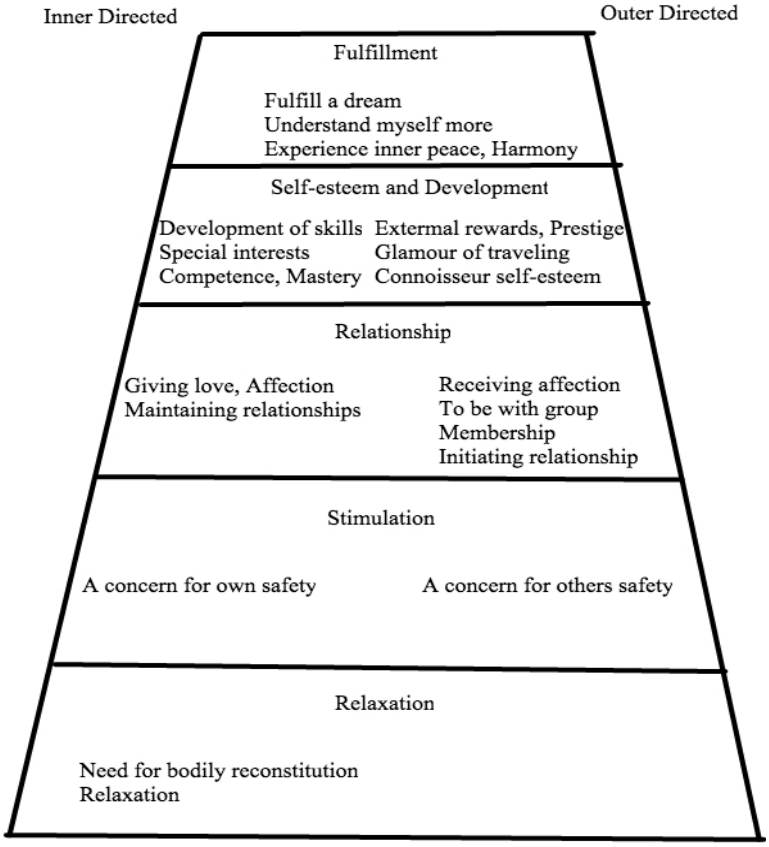

Figure 2. The travel career pattern (TCP) model. Retrieved from Ryan. Copyright 1998 by Ryan. Reprinted with permission.

The Travel Career Pattern theory was further discussed and developed by Pearce (1993, 2005) himself, as well assume other researchers, such as Pearce and Caltabiano (1983), Moscardo and Pearce (1986), and Ryan (1998). The TCP approach analyses five different needs levels of tourist motivation (from the bottom up): relaxation, safety/security, relationship, self-esteem and Development, and self-actualization/fulfillment.

Pearce (2005) describes TCP as a dynamic, multilevel motivational structure. Hsu and Huang (2008) proposes that travel experience may lead to the change of travel motivation. So, the better the experiences travellers get, the higher their expectations will be in their next trip. However, Ryan (1998) emphasized that the demonstration of the TCP was not strong enough to support this framework.

Based on Krippendorf's study (1987), Ross (1994, p.23) further lists eight levels of travel motivations from a psychological point of view (from the bottom up): "recuperation and regeneration, compensation and social integration, escape, communication, freedom and self-determination, self-realization, happiness, and travel broadens the mind". Compared with Maslow's and TCP model, Ross's model does not emphasize safety and security needs.

3.2.3 Push and Pull Theory

Uysal and Jurowski (1994) pointed out that people travel because they are 'pushed' by 'internal forces' and 'pulled' by 'external forces' (such as interest in a destination's attributes) at the same time. 'Push' factors are person-specific attractors - they explain why people want to travel, such as the desire for escape and adventure, rest and relaxation, prestige, social interaction, place identity, and fitness (Pearce & Lee, 2005; Ritchie, Tkaczynski & Faulks, 2010; Snepenger, King, Marshall, & Uysal, 2006). 'Pull' factors are destination-driven attractors (Turnbull & Uysal, 1995), for instance the weather, physical attractions, accessibility, accommodation, and the marketing and promotion of the destination (Andreu, Kozakb, Avcic & Cifterd, 2005; Park & Yoon, 2009; Seo,

Park, & Yu, 2009). In other words, push factors tell us why people want to get away from the present situation, while pull factors describe the attractions of travel destinations (Perrett, 2007). Klenosky (2002) claims that travelers may have different push factors while sharing the same pull factor.

Based on data of tourists' attitudes, Dann (1977) classified two basic motivations for travel: anomie and ego-enhancement. Anomie, according to his study, means to escape or get away from daily life, thus, it is defined as push factor, and drives visitors to escape from daily life, invoking the need for isolation (Perrett, 2007). On the other hand, ego-enhancement is regarded as a pull factor, which represents the need for recognition and is related to socio-economic situations (Dann, 1977; Perrett, 2007). However, Fodness (1994) believed that ego-enhancement was a push factor, as he considered both anomie and ego-enhancement motivations were the factors predisposing people to travel. In most cases, push factors are used to explain the desire to travel, and pull factors explain the selection of a specific travel destination. Compared with pull factors, push factors played a more significant role in explaining travel motivation, because push factors were the forerunner of pull factors (Dann, 1977). Thus, Dann (1977) strongly recommended more attention to be paid to push factors. Similarly, Mill and Morrison (1998) pointed out that push factors needed to be present before pull factors, to determine the attractiveness of a destination for visitors.

Crompton (1979) and Pearce and Caltabiano (1983) then analyzed the reasons underlying leisure travel, and Crompton (1979) found nine motivations which guide tourists to a specific tourism destination or a type of travel (as shown in Table 2 below), seven of which were socio-psychological motivations, and thus should be regarded as push factors, whereas the other two motivations were alternate culture motivations considered as pull factors. He also recommended that tourism operators pay more attention to socio-psychological motivations to attract more travellers to visit the destination.

Table 2

Push and pull factors of travel motivations.

Author	Push Factor	Pull Factor
Dann, 1977	**Anomie** • Escape for get away from daily life	**Ego-enhancement** • The needs for recognition
Crompton, 1979	**Socio-psychological** • Escape from a perceived mundane environment • Exploration and evaluation of self • Relaxation • Prestige • Regression • Enhancement of kinship relationships • Facilitation of social interaction	**Alternate Culture** • Novelty • Education
Iso-Ahola, 1982	**Escaping** • Leave present life	**Seeking** • Obtain psychological rewards

Note. Retrieved from Dann (1977), Crompton (1979) and Iso-Ahola (1982).

3.2.4 Two Dimensional Tourist Motivation Model

Based on push and pull theory, Iso-Ahola (1982) developed a two dimensional tourist motivation model from social a psychological perspective. The result of this study showed that seeking and escaping were the two main motivational forces, and another study by Mannell and Iso-Ahola (1987) also obtained the same result. Iso-Ahola (1982) believed that tourists were influenced by two motivational forces: the desire to leave their present life, and the desire to obtain psychological rewards through travelling in a contrasting environment. According to his study, people traveled to a new environment because they wanted to escape from their personal environment and look forward to achieve a personal goal.

3.2.5 Psychographic Personality Types of Traveller

Plog's (1974) studied travel motivation and developed a continuum based on the personality and psychology of travellers. According to his research, all travelers can be divided into five groups based on their personality and psychology: psychocentric, near psychocentric, mid-centric, near allocentric and allocentric. Later, in 2001, Plog updated his original model by replacing the 'psychocentric' with the 'dependable', and using 'venturers' instead of 'allocentric'. The updated model (Figure 3 below) uses Plog's later conceptualization.

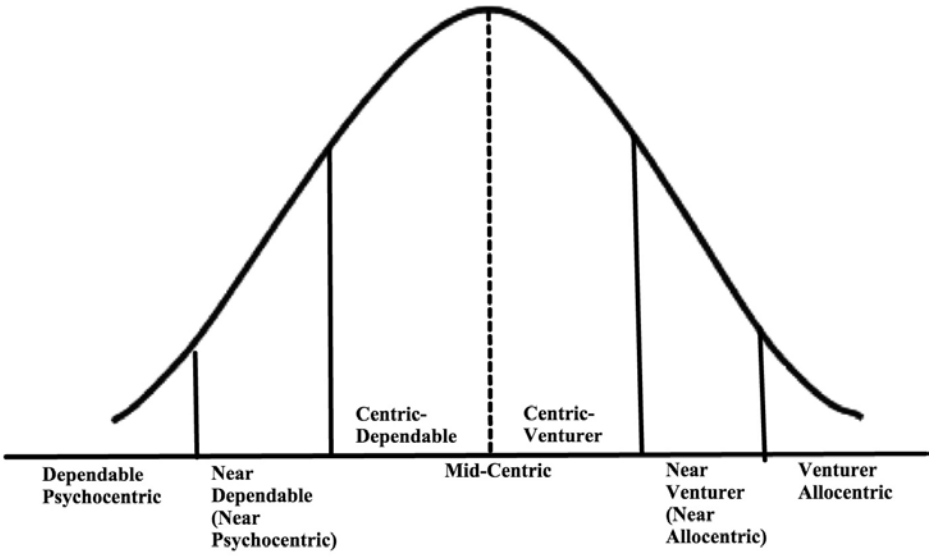

Figure 3. Psychographic personality types of traveller. Retrieved from Plog. Copyright 2001 by Plog. Reprinted with permission.

Dependables represent a group of people who are shy, anxious and usually conservative, they are not adventurous, and thus prefer familiar destinations over exotic places. On the other end, venturers refer to a distinct group of tourists, who are adventurous, open-minded, confident, and

willing to explore new things to satisfy their curiosity (Huang & Hsu, 2009). Most travellers sit somewhere between a dependable and a venturer. The changes in travellers' personalities may cause growth or decline in the development of travel destinations (Chen, Mak, & McKercher, 2011). Although this model provides a great understanding of travellers' personality and behaviours, it does not explain the relationship between tourists' personality and travel motivations (Hsu & Huang, 2008).

3.3 Gender Differences in Travel Motivations

Although previous studies on tourist motivation explore some similarities and differences between multiple groups, gender differences are still rarely discussed. More recently, researches have realized that gender difference in travel motivations is an academic void and hence started to investigate different travel motivations by gender (Norris & Wall, 1994). However, Meng and Uysal (2008) still noted that studies about gender differences in tourism motivation are still limited. Freysinger (1995) claimed that the meaning of leisure for the middle-aged generation differed by gender. Similarly, Squire (1994) claimed that gender differences do not only exist in travel motivation, but can also be found in other situations. According to Marsden and Reed (1983), men are more interested in social entertainment, such as playing sports games, having meals at a restaurant, and watching films.

Gender differences can also be found when making travel decisions. According to Mansfeld (1992), the travel decision making process can be divided into six stages, of which motivation is the first. Tourists then collect information about the destinations, evaluate and eliminate some destination alternatives, before making the final choice of destination, and going for the actual travel. The final stage is the assessment of destination choice, based on travelers' satisfaction, which would effect their travel motivation in the future. Hence, it is very important to understand motivation in tourism, because motivation itself is the beginning of travel (Parrinello, 1993; Hsu & Huang, 2008). Cosenza

and David (1981) found that men were usually the dominators in families with children, and tend to make decisions with women in families without children; they also indicated that when married, women become the dominators in families with children. Other researchers also claimed that women were the dominators of family decision making, and therefore, the woman was the travel planner for the family (Nichols & Snepenger, 1988; Fodness, 1992). Similarly, Mottiar and Quinn (2004) yielded similar results in their study, where they also define the women as the 'gatekeeper'.

Some researchers have studied travel preferences to analyse the gender differences in travel experiences (Meng & Uysal, 2008); the findings of these studies also reveal a similar result. Just like McGehee, Loker-Murphy and Uysal (1996), Mceczkowski (1990) also found that men were motivated by either action or adventure, and they were not afraid of taking risks. However, women were looking forward to cultural or educational experiences, and consider safety as the most important condition (Mceczkowski, 1990). Besides security, when choosing accommodation, female travellers also believe that personalized services and reasonable prices are more important, while men paid more attention to business services and hotel facilities (McCleary, Weaver & Lan, 1994). Similarly, the results of the study by Westwood, Pritchard & Morgan (2000) also revealed that women tourists considered comfort, safety and staff attitudes as more important, while services and facilities were considered more important by men (Westwood, Pritchard & Morgan, 2000).

Although nowadays, women have more opportunities to participate in sport compared to previously, sport is still commonly regarded as a 'men's activity' (Shaw, 1994). Usually, weight concern was the strongest motivation for women to participate in sport activities, followed by social relationships, involvement, and then other health issues (Masters, Ogles & Jolton, 1993). McGehee, Loker-Murphy and Uysal (1996) analysed gender differences in motivations of the Australian international pleasure travellers, and according to their study, there are significant differences in the importance of motivations from a gender perspective. They found that sports and adventure is the most significant motivation for male travellers, while female tourists claim that culture, opportunities for family bonding, and prestige are more important to them. The study by Andreu,

Kozac, Avci and Cifter (2005) shows that the motivation factors for women to travel are stronger than that for men as women were mostly motivated by relaxation and escape, whereas men tend to be more interested in recreational activities. As in daily life women undertook more housework and family responsibilities than men, they had less time for leisure (Witt & Goodale, 1981; Searle & Jackson, 1985; Horna, 1989). Besides time constraint, women also had other concerns, such as lack of physical strength, social anxiety, and finding people to do leisure activities (Jackson & Henderson, 1995).

According to Ford (1991), the travel motivations for men and women are different. Men are most motivated and attracted by physical activities and adventure, whereas women are most motivated and attracted by culture, family and relaxation (Mceczkowski, 1990; McGehee, Loker-Murphy & Uysal, 1996; Andreu, Kozak, Avci & Cifter, 2005; Perrett, 2007). However, recent research showed that there was no significant gender difference in travel motivation (Jönsson & Devonish, 2008; Meng & Uysal, 2008). Interestingly, no study has been previously published on gender differences in bicycle tourism motivation.

3.4 Travel Motivation Research on Bicycle Tourism

The majority of previous studies of bicycle tourism were based on marketing perspectives, such as travel behaviour, regional development, and management issues, therefore, the study of bicycle tourism motivation can be considered a critical topic in academia.

LaChausse (2006) believes that, compared with male cyclists, female cyclists were more concerned about weight, affiliation, and self-esteem. He also found that competitive cyclists participated in cycling to achieve personal goals while the non-competitive cyclists were not interested unless they actually understood the nature of competitive cycling.

Bloy (n.d.) provided ten motivations for undertaking cycling holidays in the UK. He believed that the major driving force was the idea of challenge. Cycle tourists wanted to enjoy beautiful

landscapes and get away from the crowds; bicycle tourism was a unique way to get travel experience, and it was regarded as mentally relaxing. According to Bloy (n.d.), although exploration plays a significant role in cycle tourism, tourists still visit local travel attractions and tend to spend a lot of time with their family. He also noticed that cycle tourists do not take cycling trips for environmental reasons or to keep fit.

Ritchie, Tkaczynski and Faulks (2010) used factor analysis on bicycle tourists in Australia; their results indicate that there are three factors (total of 12 items) that influence involvement: attraction (30.3%); self-expression (22.8%); centrality (15.8%). They also tested for push factors (17 items) of bicycle tourists' motivation. Among these push motivation factors, adventure experiences ranked first, with 14.6% of total variance, followed by competence mastery (12.1%), personal challenge (11.6%), and then relaxation/escape (10.7%); the smallest push motivation factor was social encounters, which had 8.0% of total variance.

Ritchie (1998) claimed the motivations of cycle tourists in the South Island of New Zealand were influenced by seven factors: competence mastery, solitude, exploration, physical challenge, stimulus seeking/avoidance, social encounters, and social escapism. However, some motivations loaded under more than one factor, for example, the motivation 'to get away from the crowded situation' was found under both 'solitude' and 'social escapism'. There were also major differences of motivations found between experience, nationality, and gender. Experienced cycle tourists tend to be highly motivated by the solitude factor, while inexperienced cycle tourists were motive by the competence mastery factor. International cycle tourists are highly motivated by the solitude and exploration factors, but domestic cycle tourists are more motivated by physical challenges, stimulus seeking, or the avoidance and social escapism factors. Female cycle tourists are more motivated by the exploration and social escapism factors, while male cycle tourists are more motivated by the stimulus seeking or avoidance factor. A performance-importance matrix was used to test the importance of factors, and according to the matrix, scenery, overall road safety, quality of driving, and road congestion were the most important factors; the weather, signposting, and road quality

were also important. Thus, travel experience related factors were very important to bicycle tourists; by contrast, factors related to destination experiences were not so important for bicycle tourists, such as visitor information centers, accommodation, biking services, attractions, recreational activities and entertainment. Furthermore, accommodation was more important to inexperienced bicycle tourists and female bicycle tourists. Additionally, female bicycle tourists were also concern about visitor information centres, road quality, and biking services.

3.5 Summary

Travel motivation is the first step of the travel decision making process, followed by collecting information about the destination, evaluating, and eliminating some destination alternatives, choosing a travel destination, going for the actual travel, and finally evaluating the travel experiences and satisfaction. This residual satisfaction is going to effect travel motivation in the future. Thus, travel motivation is considered the base of the actual travel, and helps to explain travel behaviour. Some well-known theories used to explain travel motivation, include Maslow's hierarchy of needs which is the most common; the travel career pattern (TCP) by Pearce, push and pull theory by Dann, two dimensional tourist motivation model by Iso-Ahola, and psychographic personality types by Plog, are also very useful. This research focuses on the push and pull theory, which claims that travellers are pushed by internal forces and pulled by external forces (such as interest in a destination's attributes) at the same time. Although, previous studies on tourist motivation did explore the similarities and differences between multiple groups, gender differences are still rarely discussed. Travel motivation factors are heavily influenced by demographic factors such as age, gender, and marital status. Furthermore, bicycle tourist have different motivations for different travel destinations: in the UK, the idea of challenge is the main driving force, with the beautiful landscapes and getting away from the crowds also being very important; in Australia, adventure experiences, competence mastery, personal challenge, relaxation/escape, and social

encounters are the five push factors of bicycle tourism motivations. However, in the South Island of New Zealand, the main motivation factors for cycling tourism are competence mastery, solitude, exploration, physical challenge, stimulus seeking /avoidance, social encounters, and social escapism. As yet no researcher has studied the bicycle tourism motivation in the North Island of New Zealand, so this study will aim to address this gap. Thus, this study is a critical one, and the findings of this study will provide a greater understanding of bicycle tourism motivation, and help develop better travel products in order to attract more visitors to engage in bicycle tourism in New Zealand.

CHAPTER 4 UNDERSTANDING THE QUANTITATIVE WORLD

4.1 Introduction

This chapter focuses on the research methodology, including research paradigms, data collection and data analysis. For this study, a quantitative approach was adopted to analyse the motivations of bicycle tourists in New Zealand. Creswell (2014) believes that quantitative research is an approach for testing objective theories by examining the relationships among several variables. He also points out that these variables can also be measuring tools, thus allowing data to be analyzed through statistical procedures. Aliaga and Gunderson (2005) consider quantitative research as the process which explains phenomenon by collecting and analyzing data through mathematical methods such as statistics. Straub, Gefen and Boudeau (2004) further define quantitative research as a set of methods and techniques for researchers to answer research questions about the interaction of humans and computers, they also state that the two cornerstones in quantitative research are the emphasis on quantitative data, and the emphasis on positivist philosophy. This chapter begins by discussing evaluates the research paradigm, secondary sources, and the data collection process, including selection of research instrument, selection of sample, and survey sites, and time frame. The selection of data analysis methods, modes of analysis, and validity and reliability of data will then be discussed, before finishing the chapter with a discussion of limitations of the study and ethical issues.

4.2 Research Paradigms

Both qualitative and quantitative research are based on underlying assumptions, and philosophical assumptions are relevant to underlying epistemology for conducting research (Myers, 1997). The paradigm is a distinct concept or thought pattern. Ontology and epistemology are the two main

philosophical dimensions of research paradigms (Laughlin, 1995; Kalof & Dietz, 2008; Saunders, Lewis, & Thornhill 2009). Wahyuni (2012) indicates that these two philosophical dimensions are bound up with the nature and development of knowledge; she also emphasizes that ontology represents the opinion of how a person perceives a reality. By contrast, epistemology is theory of knowledge (Audi, 2011), and it is defined as the assumptions about basic knowledge and the way to achieve it (Hirschheim, 1992). Epistemology represents the production, understanding and using of knowledge, and also focuses on the nature, sources and scope of knowledge (Audi, 2011; Wahyuni, 2012).

As shown in Figure 4, Straub, Gefen & Boudreau (2004) find that there are three basic epistemological positions for qualitative researchers to choose from: positivist, interpretive, and critical. They also realize that the interpretive and critical positions are not so meaningful in quantitative research; thus, positivist research works best for quantitative research. Orlikowski and Baroudi (1991) also claim that positivist research has a leading role in quantitative research approaches, the positivist epistemology fully depends on a host of scientific methods that produce numerical and alphanumeric data. Therefore, philosophical assumptions are valid for both quantitative and qualitative research. In general, positivists comprehend phenomenon by testing theories (Myers, 1997). Similarly, Gray (2009) believes that quantitative data are used to analyse some sort of social phenomena or behaviours in positivist paradigms. Positivist research should include formal propositions, measures of variables, hypothesis testings, and the drawing of inferences about a phenomenon from the sample of a stated population (Orlikowski & Baroudi, 1991). Furthermore, positivists believe that the reality is objectively given and can be described by measurable properties (Leimeister, 2010), the purpose of positivist research is to turn the objective reality into research hypotheses. Positivist research helps researchers understand the phenomenon and produce knowledge (Myers 1997; Straub, Gefen, & Boudreau 2004). Leimeister (2010) finds out that positivist research has been shown to have some drawbacks, such as the results being mostly irrelevant in practice. He also points out that positivist research tends to be very narrow,

focusing only on the rigidity and consistency of the research methods rather than the actual research object. Habermas (1995) argues that the process to understand the reality is not objective, and it rarely occurs alone.

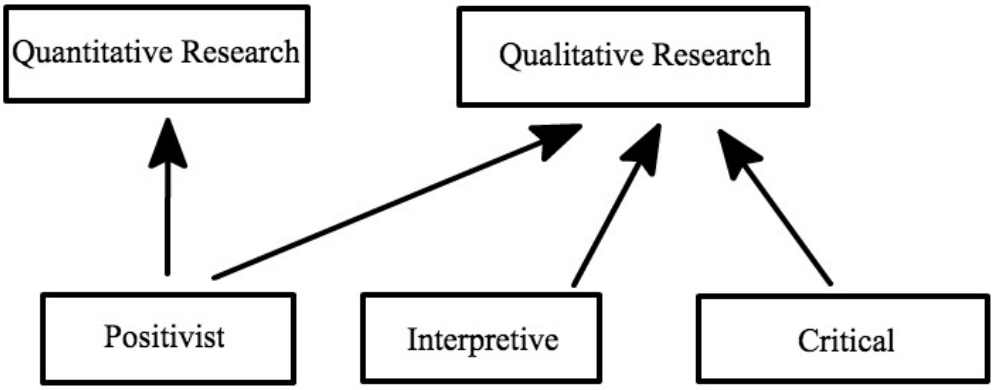

Figure 4. Underlying philosophical assumptions for qualitative and quantitative research. Copyright 2004 by Straub, Gefen & Boudreau. Reprinted with permission.

This study sets out to analyze motivations of bicycle tourists in New Zealand, which is a social phenomenon. The majority of previous studies about motivation used quantitative methods. For example, questionnaires have been used by (2002) to analyze different satisfactions and motivations for destinations in Turkey and Mallorca between British tourists and German tourists. Pan and Ryan (2007) also used questionnaires to analyze motivations and satisfactions at Pirongia Forest Park in New Zealand. These studies can provide a framework in understanding motivations and satisfaction of bicycle tourists, as the methods applied are replicable, which is one of the advantages of quantitative research. LaChausse (2006) used an internet-based survey to demonstrate motives of

cyclists, and Ritchie, Tkaczynski and Faulks (1998; 1998; 2010) used questionnaires to understand the motivations and travel behavior of bicycle tourists in New Zealand. By contrast, there are other researchers who utilized qualitative research methods to understand tourist motivation, Lamont (2009) investigated the bicycle tourism system by doing qualitative interviews because his study is a part of a broader exploratory study, and Fodness (1994) used a mixed methods approach to understand tourist motivation because the aim of his study was to develop a theory rather than test hypotheses. There were three studies involved in his entire research: the first was a functional approach, where he used focus group interviews to complete an exploratory study. The second study aimed to measure tourist motivation, and the third study was on market segmentation. He used quantitative methods to do the latter two studies. Therefore, based on previous studies, this research will adopt a quantitative approach to analyze the different motivations of bicycle tourism in New Zealand.

4.3 Secondary Sources

Compared with primary research, secondary research, also known as syndicated research, uses existing information or reports (Doyle, 2011). Secondary research is advantageous, as primary research requires a longer time and more money; it is a more cost and time efficient way to answer some questions which have already been covered in previous studies. According to Stewart and Kamins (1999), the source of secondary information includes “government reports, industry studies, archived data sets, and syndicated information services as well as the traditional books and journals found in libraries” (P.2).

In this study, secondary sources are necessary as they provide a primary understanding of bicycle tourism in New Zealand, such as the nationality of cycling tourists and accommodation preferences. Online information and official websites are also very useful for this study, such as: Statistics New Zealand (www.stats.govt.nz), Tourism New Zealand (www.tourismnewzealand.com), and the New

Zealand Ministry of Tourism (www.tourisminfo.govt.nz). These are the three main online sources and databases used in this study. Other market reports such as The New Zealand Cycleway Market Research Report, Nga Haerenga - The New Zealand Cycle Trail Evaluation Report, and New Zealand Cycle Trail Evaluation - Four Cycle Trail Case Studies provide a thorough analysis of the trends and evaluation of bicycle tourism in New Zealand. Furthermore, previously published research on bicycle tourism, motivation of bicycle tourists, and gender differences in travel motivation, provide solid background knowledge for this study.

4.4 Method of Data Collection

The data collection process is of utmost importance to this study as the results and findings completely depend on the data. For this study, a self-completion questionnaire was used to collect quantitative data. A total of one hundred and two questionnaires were collected during the period of December 2014 to January 2015. On average, it took respondents about ten to fifteen minutes to complete the questionnaire. The selection of participants, research instrument, and samples are described in the following section.

4.4.1 Participants

In this study, the participants are bicycle tourists in New Zealand. In order to achieve the aim of this research, the selected participants firstly must be over 16 years of age. According to Auckland University of Technology Ethics Committee (AUTEC), participants under 16 years of age must have consent of their parent or legal guardian to be involved in the study. Therefore, this research will not include any participant younger than 16 years of age. Secondly, participants must be bicycle tourists in New Zealand during the period of this research. Thus, participants of this study

are chosen from bicycle tourists in New Zealand who are over 16 years old during the research period.

4.4.2 Selection of the Research Instrument: the Questionnaire

A survey was used as the data collection method for this study. Survey methods are developed within the positivist approach to social science (Neuman, 2006). According to Groves (1996), surveying is a method of quantitative data collection because it yields statistical data. The survey asks people about their beliefs, opinions, characteristics, and past or present behaviour. Survey research also provides a quantitative description of trends and attitudes of a population by studying a sample of that population (Creswell, 2014). Thus, a survey is appropriate for research questions about self-reported beliefs or behaviours. In a survey, researchers pose questions that measure different variables and test several hypotheses simultaneously. The survey research starts with a theoretical research problem, and ends with empirical measurement and data analysis. Survey research uses control variables to approximate the rigorous test for causality that experimenters achieve with their physical control over temporal order and alternative explanations (Neuman, 2006). Survey researchers may use self-completion questionnaires or structured interviews to collect quantitative data (Fowler, 2009). Self-completion questionnaires (also known as self-administered questionnaires) require respondents to answer questions by completing the entire questionnaire themselves. As a method, the self-completion questionnaire can come in different forms, such as postal or mail questionnaire, where the questionnaire is sent to the respondents through the post (Neuman, 2006).

The aim of this study is to analyse and understand the motivations of bicycle tourists in New Zealand. In order to achieve this aim, a self-completion questionnaire was used to collect data that would explain different travel motivations in a large sample size. The participants are key informants, and their experience, views, and perspectives are of imperative to this research. In this

study, participants can choose to complete the questionnaire on-site and return it to the primary researcher immediately, or take the questionnaire away to complete at their leisure, and then post it pack using prepaid envelopes.

A questionnaire with four parts was designed to gather information that would explain different bicycle tourism motivations in New Zealand. The first section of the questionnaire asked for information about the participants' current experience of bicycle tourism in New Zealand, such as the main purpose of cycling tourism, who they cycle with, their preference/selection of accommodation, and transport. The second section of the questionnaire focused on push motivation, which involved a list of 19 potential push motivations for engaging in bicycle tourism in New Zealand. These motivations included statements like 'to seek adventure', 'to increase knowledge of new places', 'to visit other parts of New Zealand' and 'to be with friends and family', and so on. The third section of the questionnaire focused on pull motivation, which involved a list of 14 potential pull motivations, such as 'beautiful nature and environment', 'good information on trail available', and 'the area offers other activities that I am Interested in'. Both the second and third sections are measured by a five-point Likert-like scale to evaluate travel motivations, where 1 = not important at all, 2 = unimportant, 3 = neither important or unimportant, 4 = important, and 5 = very important. These potential travel motivation items are based on previous studies by researchers such as McGehee, Loker-Murphy and Uysal (1996), Ritchie and Hall (1998), Kozak (2002), Pan and Ryan (2007), Jönsson and Devonish (2008), Meng and Uysal (2008), Ritchie, Tkaczynski and Faulks (2010). The final part of the questionnaire asked for sociodemographic items, such as age, gender, and previous bicycle tourism experiences. The questionnaire was tested before being used to collect formal data. According to Berdie, Anderson and Niebuhr (1986), pretesting is extremely helpful for eliminating obscure or confusing questions. Similarly, Punch (2003) also claims that pretesting helps determine whether the questionnaire too hard to answer, or takes too long to fill in. Therefore, the researcher handed out the first draft of the questionnaire to friends to test. After this

pretesting exercise, the questionnaire was slightly amended, and it would only take about 10 to 15 minutes to complete.

4.4.3 Selection of the Sample

4.4.3.1 The Sample

Jackson (2008) stressed that the selection of participants plays a significant role in any study. According to Gray (2009), the total number of people who could possibly attend the research is regarded as a 'population', and a sample should be selected when the entire population can not possibly be evaluated for a study, due to its large size. The sample are used to represents population (Jackson, 2008; Gray, 2009). Generally, probability and non-probability samples are two types of samples. A probability sample (also called random sample) means that the possibility of anyone and everyone to be selected from the population is equal (Gray, 2009). However, even with random sampling, a sample cannot be regarded as a perfect representative of the entire population. When it is impossible to use probability sampling, non-probability sampling is used. Compared with a probability sample, the non-probability sample costs less time and money to obtain.

For a quantitative study, the optimum sample size for probability sampling should be in the range of one hundred to two hundred (Hoyle, 1995). The larger the sampling size is, the smaller the sampling error becomes, because sampling error % = (1/ $\sqrt{n}$) * 100. Lewis (1984) also claims that a larger sample size yields a smaller sampling error, and therefore a more accurate research result. Kozak (2002) believes that a large sample size helps to yield a great result for factor analysis. Power analysis is also very important when deciding the size of sample. Accepting the null hypothesis when the researcher should reject it is called a Type II error. When Type II error is high, the power of the research is very weak, because the research power is 1 minus the Type II error

(Rudestam & Newton, 2015). For example, when the probability of Type II error is .20, the power is .80 (1- .02= .80). Hair, Black, Babin and Anderson (2009) suggest that factor analysis requires at least 50 respondents, and multivariate analysis of variance (MANOVA) needs at least 20 observations in each cell. Therefore, a total of one hundred and two participants were included in this research, 63 were male and 39 were female.

4.4.3.2 The Method of Sample Selection

The method of sample selection plays a significant role in research (Shields & Twycross, 2008; Punch, 2014). According to Dietemann, Ellis & Neumann (2013), researchers can use different sample selection methods to choose a sample from the entire population, and the most common selection methods are random sampling and non-random sampling. Random sampling is selecting a sample form the population with known probabilities. When using random sampling, the sampling properties can be defined, and a sampling frame is required. The selection of random sampling is accomplished in a specific way, such as using computer software. Simple random sampling, stratified random sampling, cluster sampling and stage sampling are four common types of random sampling (Gray, 2009). On the other hand, non-random sampling is another method to select samples which does not require a sampling frame. The advantage of non-random sampling is that it takes less time and money, which is very convenient for researchers. There are three common types of non-random sampling: quota sampling, convenience sampling, and volunteer sampling (Australian Bureau of Statistics, 1998). In 2009, Gray further classified the non-random sampling method into four types: purposive sampling, quota sampling, convenience or volunteer sampling, and snowball sampling. The convenience sampling method is used to select a sample based on its convenient accessibility. According to Shields and Twycross (2008), the convenience sampling method is effective when the topic has not been studied a lot. Participants were only selected for a

sample if they can be accessed easily and conveniently, therefore, the convenience sampling method was used in this study.

4.4.4 Survey Sites and Time Frame

The Hauraki Rail Trail was used as the destination of research for this study because it is the most popular bike trail in New Zealand. According to French (2013), over seven thousand tourists had cycled on the Hauraki Rail Trail every month since January, 2013. Both the Ministry of Tourism (2009) and New Zealand Tourism (2013) claimed that Auckland and Rotorua were the two most popular places for bicycle tourists to visit in New Zealand, while the Hauraki Rail Trail sat just between those two places. Two entry/exit points of the Hauraki Rail Trail were selected for data collection: Waikino and Thames. For the data collection, the researcher went to parking areas, cafes, the i-SITE and the Hauraki Rail Trail office, because once the cyclers start cycling, they would not stop to fill in questionnaires. Therefore, it was better to conduct the survey before the visitors cycle, during their rest time, or after they have finished cycling, which was why parking areas and cafes were included. The i-SITE is an information centre where visitors get information and free brochures from. According to the Ministry of Tourism (2009), 20% of bicycle tourists get information from the i-SITE, (other sources of information include travel books, websites, and family or friends). As the official service for the trail, the Hauraki Rail Trail office provides a variety of products for tourists to choose from, such as a three-day guided tour, or a one-day guided tour. Tourists can also book shuttle buses, luggage transfers, and use the bike hire service directly from the office, or through the official website (http://www.the Haurakirailtrail.co.nz). The official website also provides trail maps and accommodation recommendations that help tourists to plan their trips. The average number of nights spent on the Hauraki Rail Trail is 1.3 nights (Angus and Associates, 2012), so other places such as petrol stations and accommodation providers were also included in this study.

Since most people tend to go cycling during the summer holidays, this study was conducted in Waikino and Thames from 20 December to 28 December 2014. This period of time was chosen because it was over the Christmas Holiday period. In order to obtain more data, the researcher went to Thames again during the period from 24 to 26 January 2015, which was a long weekend for the Auckland Anniversary public holiday. The time frame for data collection was normally between 7AM to 9PM.

4.5 Data Analysis Methods

Data analysis transforms data into information. Quantitative data collection records verbal, visual, tactile, and other types of data in the form of numbers. However, when numbers are used as data, several types of data are possible. They are commonly referred to as levels of measurement, where each level has different measurement characteristics and limitations on mathematical operations that can or cannot be performed on them. Straub, Gefen & Boudreau (2004) stated the main quantitative data analysis techniques are univariate analysis, bivariate analysis and multivariate analysis, which will be described in detail below.

4.5.1 Univariate Data Analysis

Creswell (2014) mentions six steps for quantitative data analysis. Firstly, reporting information on the numbers in the sample who did and did not return the completed survey. Followed by discussing the method to determine the response bias. Then discussing a plan to provide a descriptive analysis of data for both independent and dependent variables. Next is identifying the statistical procedure, then identifying the statistics and the statistical computer program to test the major inferential hypotheses. The final step is presenting the result in the form of tables or figures, and interpreting the results from the statistical tests.

Univariate analysis is a quantitative data analysis technique which analyses distributions of a single variable (Straub, Gefen & Boudreau, 2004), thus, the results of a data analysis procedure should only involve one variable. One of the most common ways to summarize the data for a variable is to calculate the most typical value of the data, in other words, to the value where the distribution of the data tends to pool or concentrate. Statistics of this value are called the 'measures of central tendency'. When thinking of a 'measure of central tendency' in everyday use, the 'average' usually comes to mind, however, 'average' is a term loosely used, and in fact there are three distinct measures of central tendency used in data analyses: the mean, median, and mode.

4.5.2 Bivariate Data Analysis

Bivariate analysis is another technique for quantitative data analysis, it is concerned with the relationships between two variables in a data set. Bivariate analysis is usually undertaken to see if one variable is related to another, in order to test whether these two variables are related to each other, it is common to measure how the two variables simultaneously change together. Generally, there are two basic approaches to bivariate data analysis: descriptive and inferential. Descriptive analysis is used when the researcher describes the responses of the sample of respondents, researchers may also use descriptive analysis when data has been obtained from an entire population, such as in a census. On the other hand, inferential analysis is used to assess if results obtained from a sample may also be true for the population from which the sample was taken.

4.5.3 Multivariate Data Analysis

Multivariate analysis is the simultaneous analysis of three or more variables. According to Hair (2006), multivariate analysis includes all statistical methods used to simultaneously analyse

multiple measurements on each individual or object under investigation. Thus, many multivariate techniques are actually extensions of univariate and bivariate data analysis.

In this study, the data is categorical data, more specifically, nominal data and ordinal data, and the IBM SPSS Statistics Software, a statistical computer software package, was used to analyse all the collected data. There were four statistical tests involved in the research: descriptive analysis, cross tabulation, factor analysis and one-way ANOVA. Firstly, descriptive analysis and cross tabulation were used to analyse the characteristics of participants, then factor analysis was employed to examine the push and pull motivation factors. Finally, the one-way ANOVA explored the differences between tourism motivations and demographic variables and bicycle travel characteristics.

The data only becomes meaningful after analysis. Before entering all the data into the IBM SPSS Statistics Software, data first needs to be categorized. It is very important to categorize the data because the statistical tests used to analyse the data are specifically related to the type of data collected (Gray, 2009). Nominal data is the lowest level of measure, and refers to a name value or category without ranking or order (such as gender and selection of accommodation), and ordinal data is obtained when it is possible to rank or order all the categories or values contained in a variable, and the ranks do not have to be equal (Gray, 2009). In most cases, ordinal data is presented as attitudes to a certain item, ranks of views, agreements, income bands, and so on. In the survey questionnaire, all data collected in the second and third section were ordinal data. The second part of the questionnaire was about push motivations, and the third part focused on pull motivational items. These two sections used a five-point Likert-like scale to evaluate travel motivations.

After categorizing the data, the next step was to enter them, including tidying up (or ‘cleaning’) the data, coding, and managing missing data. If the data is not ‘clean’, the data analysis becomes unreliable and invalid. Clean data refers to data which has been entered into IBM SPSS Statistics Software accurately (Gray, 2009). Thus, the researcher and an acquaintance entered the data separately to ensure accuracy in data entry process; by comparing the results, all data entered into

the software could be identified as clean. Coding is the process of allocating an identification number to data (Gray, 2009), for instance, in this study, the researcher labelled ‘male’ as 0 and ‘female’ as 1. There are also four types of missing data: ‘not applicable’, ‘refused’, ‘did not know’ and ‘forgot to answer’ (Gray, 2009); after entering all the data into the software, no missing data was found, so the researcher had no missing data to manage.

Cross Tabulation is used for analyzing the association between ordinal and/or nominal variables (White & Korotayev, 2004). The Chi-square builds upon cross tabulation analysis, and is used to test the statistical significance of the cross tabulation (Qualtrics, n.d.), therefore, the Chi-square examines the independence between two variables; the two variables are related when the significance value is < .05.

Factor analysis has often been used in travel motivation research (McGehee, Loker-Murphy & Uysal, 1996; Kozak, 2002; Pan & Ryan, 2007; Jönsson & Devonish, 2008; Meng & Uysal, 2008; Ritchie, Tkaczynski & Faulks, 2010). Factor analysis is used to identify a factor which represents the underlying relationships among some related items, by turning a large number of individual scale items into a small number of coherent sub-scale items (Pallant, 2010). The correlation matrix should show correlation coefficients (r) of .3 and above, in order to ensure that the data is suitable for factor analysis (Pallant, 2010). Furthermore, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) value should be .6 or above. Meanwhile, the Barlett’s test of sphericity value should be significant, which means the significance value should be < .05. The Cronbach’s alpha was the reliability coefficient of this research, to measure the reliability of the questionnaire used.

Since a t-test can only be used to compare two means, the one-way analysis of variance (ANOVA) is very useful to compare two or more means and can be used only for independent or unrelated samples (Gaur & Gaur, 2009). One-way ANOVA uses the F statistic to compare the means of two or more sample groups, so the larger the F ratio, the more significant the difference. When the significance level is greater than .05 (p > .05), there is no difference between/among the sample

groups (Coakes, 2013). Among the numerous different post hoc tests in one-way ANOVA, Tukey's HSD post hoc Test is most commonly used to present the differences.

4.6 The Validity and Reliability of Research Instruments

According to Gray (2009), research instruments heavily influence the validity and reliability of data. In other words, the reliability and validity of the measures is very important for research instrument, and research instruments should be able to generalize the entire population as a whole, to achieve the validity and reliability. Gray (2009) describes seven types of validity of a research instrument: internal validity, external validity, criterion validity, construct validity, content validity, predictive validity, and statistical validity. The research instrument should only focuses on what it was intended to measure, in order to achieve validity (Gray, 2009). In this study, the questionnaire should measure the motivations of bicycle tourism, instead of where the visitors can hire bikes from.

Validity is fully dependent on reliability. If the research questionnaire is unreliable, it is basically invalid. Gray (2009) also claims that reliability measures the consistency as a correlation coefficient which is not perfect (generally, the correlation coefficient should be above .90). The reliability of a research instrument can be divided into five types: stability, equivalence, internal consistency, inter-judge reliability, and intra-jude reliability (Black, 2001). The Cronbach's alpha, a scale from .00 to 1.00, is the reliability coefficient that this research uses to measure the reliability of questionnaire.

4.7 Limitations

There are some limitations which should be considered throughout the entire research methodology. The first limitation of the methodology is the small sample size: a large sample size yields a small sampling error and an accurate research result, and helps to obtain a great result for factor analysis

(Lewis, 1984; Kozak, 2002). However, the larger the sample, the more time it takes to collect and analyse the data. Due to time and money constraints, only one hundred and two participants were selected for the sample.

Another limitation of the methodology is the limited ability to probe answers (Search For Commn Ground, n.d.; Bryman, 2008). By using closed-end questions, quantitative research does not provide opportunity for participants to answer the questions using their own words. Participants have to choose an answer eventhough it may not accurately represent their real opinions.

When data is collected via self-completion questionnaires, it is very difficult to ensure that participants do answer all the questions, especially if the questionnaire is asking for personal information such as age, income and occupation (Bryman, 2008). It is indeed very difficult to ensure every respondent answers all the asked questions. When they do not, then researchers have to deal with and manage the missing data.

The last identified imitation of the methodology is the selection of a sampling method. Convenience sampling, a commonly used non-random sampling method, may not be able to sufficiently generalize the entire population.

4.8 Ethical Issues

Before collecting data, any ethical concerns must first be considered. According to Rudestam and Newton (2015), ensuring that all participants are fully informed before giving consent, and are unhurt during the research process, are the two main ethical issues in research. In 1979, the Belmont Report shows that respect for persons, beneficence, and justice are the three core ethical principles (National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research, 1979). As this study includes human participants, the Auckland University of Technology Ethics Committee (AUTEC) requires the ethics approval. The application for ethics approval, as

known as EA1 Form, attached with the Participant Information Sheet and questionnaire, was submitted in May 2014. On 27 May 2014, the Application for Ethics Approval was approved by AUTEC. Along with the Application for Ethics Approval, the Participant Information Sheet provided a better understanding of this research for potential participants. The Participant Information Sheet was handed out to potential participants, and by reading the information sheet, potential participants became aware of the purpose of this study, discomforts and risks involved, the benefits of participating in the research, and the assured protection of their privacy. Participation in this research is by an informed and voluntary basis, and potential participants could take as long as they needed to consider the invitation to participate. They could choose to complete the questionnaire on-site and hand it back to the primary researcher immediately afterwards, or to take the questionnaire away with them, complete it in at their leisure, and return post it using prepaid envelopes. Participants were able to disclose as little or as much information as they pleased, and all information was collected on an anonymous basis, all participants remained anonymous throughout the whole process. Since the questionnaire was anonymous, participants or specific groups were not identifiable in the final report. Participants were entitled to refuse answering any question they did not wish to answer, and were free to ask questions if they had any concerns about the procedure or with the questionnaire. They were assured that withdrawal from the research at any time would not lead to any disadvantage to them. The researcher endeavoured to protect participants from any discomfort, embarrassment, incapacity, or psychological harm, resulting from their involvement in the research.

4.9 Summary

This chapter discussed the methodology of this research, especially focusing on the process of data collection and data analysis. A quantitative approach was adopted to analyse motivations of bicycle tourism in New Zealand, and secondary sources were used in the second chapter of this study to

provide a better understanding of the background of this topic. A questionnaire with four parts was designed to achieve the aim of the research, and 102 participants were selected by a non-random sampling method. After data was collected, coded and entered into the software, they were analysed using descriptive analysis, cross tabulation, factor analysis, and one-way ANOVA. Several limitations and ethical issues were also considered in this chapter.

CHAPTER 5 WHAT DOES THIS STUDY SAY?

5.1 Introduction

The aim of this study is to understand the motivations of bicycle tourism in New Zealand, and the objectives are listed below in order to achieve the aim:

1. To discover the main characteristics and demographic information of bicycle tourists in New Zealand in order to gain a brief understanding of cycle tourists in New Zealand.
2. To investigate the main push and pull motivations for why tourists participate in some sort of cycling sport or activity while traveling in New Zealand, and to classify these motivations into different underlining factors.
3. To examine whether there are significant differences in bicycle tourism motivation factors among the sample characteristics, in order to develop better products to serve the bicycle tourism market segment.

This chapter discusses the findings of the study through the data analysis, and in comparison with previous studies. The chapter is organized as follows: firstly, to achieve objective 1, descriptive analysis will be used to analyse characteristics of participants, including demographic profile and travel characteristics. Then, to achieve objective 2, the descriptive analysis of push and pull motivational items will illustrate the main motivations for tourists to participate in some sort of cycling activity while traveling in New Zealand; the underlining factors of these motivational items will also be discussed. Finally, the one-way ANOVA will be used to examine whether there are any significant differences in bicycle tourism motivation factors among the sample characteristics in order to achieve objective 3.

5.2 Demographic Profile of Participants

There are four parts of the questionnaire, with the final part focusing on sociodemographic items such as age and gender. The participants of this study are bicycle tourists in New Zealand older than 16 years old during the research period. Table 3 shows the demographic profile of participants, a total of 102 participants were involved in this research.

Table 3

Demographic profiles of participants.

Variables	Frequency	Percent (%)	Variables	Frequency	Percent (%)
Age			**Overall satisfaction**		
16 - 25	37	36.3	Very Dissatisfied	4	3.9
26 - 35	34	33.3	Dissatisfied	6	5.9
36 - 45	21	20.6	Neutral	7	6.9
46 - 55	7	6.9	Satisfied	30	29.4
56+	3	2.9	Very Satisfied	55	53.9
Total	102	100.0	Total	102	100.0
Gender			**Recommend bicycle tourism to others**		
Male	63	61.8	No	10	9.8
Female	39	38.2	Yes	92	90.2
Total	102	100.0	Total	102	100.0
Have you done bicycle tourism before					
No	18	17.6			
Yes	84	82.4			
Total	102	100.0			

According to Table 3, bicycle tourists were quite young, with over two-thirds of the participants younger than 36 years old (n = 71, 69.6%), while only three participants were older than 56 years old (2.9%). Ministry of Tourism (2009) and New Zealand Tourism (2013) also found that bicycle tourism was very popular with young people, since most of the participants were younger than 34 years old. In other countries, bicycle tourists were older compared to cycling tourists in New Zealand. For example, in England, most bicycle tourists were over 45 years old with the largest proportion falling between the age range of 45 to 59 years (Bloy, n.d.); in America, it was found that more middle-aged men were cycling during their vacation (World Travel Market, 2014).

In terms of gender, 61.8% of participants were male (n = 63) and the remainder female (38.2%, n = 39). This agrees with the literature (Bloy, n.d.; Ritchie, Tkaczynski & Faulks, 2010; New Zealand Tourism, 2013) more men participate in cycle tourism, because men tend to be more interested in sports and are not afraid of risks (Marsden & Reed, 1983; McGehee, Loker-Murphy & Uysal, 1996) Similarly, Mceczkowski (1990), McGehee, Loker-Murphy & Uysal (1996), Andreu, Kozak, Avci & Cifter (2005), and Perrett, (2007) found that men were more motivated by physical activities and adventure than women.

The majority of participants have experienced bicycle tourism in the past (82.4%, n = 84); previous studies also yielded a similar result, where bicycle tourists were likely to have had a similar travel experience before (Bloy, n.d.). According to Ritchie (1998), over 70% of cycling tourists had cycle tourism experiences in the past. Cycling tourists also tend to be interested in other adventure activities such as kayaking, rafting, climbing, horse riding, and sky diving (New Zealand Tourism, 2013).

The overall satisfaction rate of cycling tourists was generally very high, as it was found that over half of participants were very satisfied with their bicycle tourism experience (n = 55, 53.9%), and less than 10% were dissatisfied or extremely dissatisfied with their bicycle tourism. Almost all participants would recommend bicycle tourism to others (n = 92, 90.2%). Previous studies also yielded the similar results. It was found by New Zealand Tourism (2013), the overall satisfaction

rate of cycling tourists in New Zealand is very high, and bicycle tourists from Ireland and France the highest satisfaction rate, with 9.4 out of 10, followed by tourists from the UK and Sweden (9.3 out of 10), and tourists from Israel had the lowest overall satisfaction (8.8 out of 10). Ministry of Tourism (2009) also finds that the average satisfaction of on-road cycling was found to be 7.1 out of 10, and 8.4 for off-road cycling. Therefore, compared with on-road cycling, international cyclists were more satisfied with the off-road cycling experience.

According to Table 3, ten participants were dissatisfied or very dissatisfied with their bicycle tourism experience, and ten participants would not recommend bicycle tourism to others. A cross tabulation was used to analyze the relationship between 'Overall satisfaction' and 'Recommend bicycle tourism to others' (Table 4).

Table 4

Relationship between 'Overall satisfaction' and 'Recommend bicycle tourism to others'.

		Overall satisfaction					
		Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	Total
Recommend bicycle tourism to others	No	4	6	0	0	0	10
	Row Percent	40.0%	60.0%	0.0%	0.0%	0.0%	100.0%
	Yes	0	0	7	30	55	92
	Row Percent	0.0%	0.0%	7.6%	32.6%	59.8%	100.0%
	Total	4	6	7	30	55	102
	Row Percent	3.9%	5.9%	6.9%	29.4%	53.9%	100.0%

The significance value of Chi-square is .000, so the relationship between these two variables are statistical significant. The result of the cross tabulation shows that respondents who were not satisfied with their bicycle tourism experience would not recommend bicycle tourism to others. On the other hand, participants would suggest others to engage in bicycle tourism when they were

satisfied or neutral with their own cycling tourism experience. Consumer satisfaction should be examined with various aspects of the entire trip, as each aspect may lead to a significant impact on the overall satisfaction. Thus, an understanding of satisfaction with each aspect of the trip is imperative when examining the overall satisfaction of a trip. When customers are satisfied, it becomes easier for tourism operators to establish stronger relationships with them (Storbacka, Strandvik, & Gronroos, 1994). Dick and Basu (1995) described the relationship between customer satisfaction and relationship's strength (as shown by Figure 5).

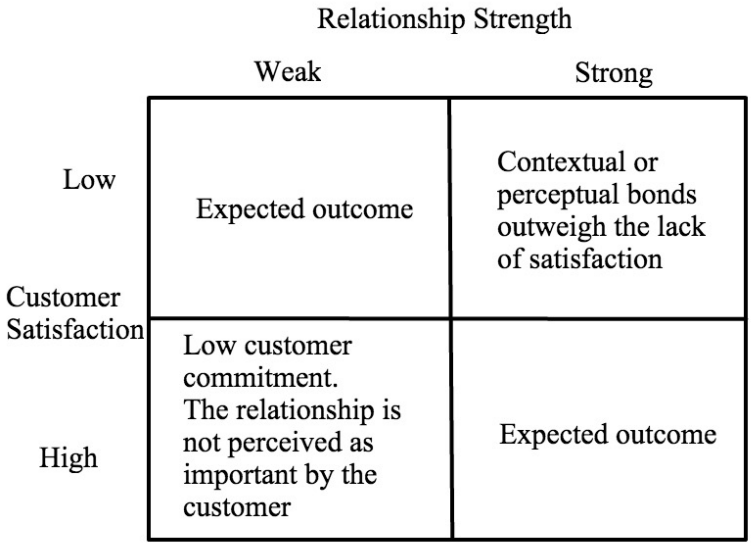

Figure 5. Relationship between customer satisfaction and relationship strength. Copyright 1995 by Dick and Basu. Reprinted with permission.

When the quality of satisfaction is low, the relationship between the customer and tourism operator is weak, which means that the customer is unlikely to be loyal. On the other hand, when the customer is highly satisfied by the company, the relationship between them becomes extremely strong, even dissatisfied customers can become loyal due to high costs of switching, and highly satisfied customers may also be disloyal if the relationship is not as strong as it should be (Gronhaug & Gilly, 1991). Bowen (2001) argues that in tourism, consumer satisfaction can be regarded as a process as well as a final state. According to Glynn and Barnes (1995), consumer

satisfaction is widely used in service marketing. Oliver's Expectancy Disconfirmation (ED) model is one of the most famous models related to satisfaction; the ED model suggests that consumers usually develop expectations before they purchase a product (Oliver, 1980). The consumers compare actual performance with expectations after using the product, they tend to have a positive impression about the product if the actual performance is better than their expectations, and would tend to repurchase the same product again and again when they are highly satisfied. On the other hand, if they get a negative impression about the product (for example, if the actual performance is worse than their expectations), they would seek alternative products as they are not satisfied with the initial product. According to Ince and Bowen (2011), basically, the ED model regards consumer satisfaction as the outcome of the comparison process between initial expectations and perceived performance. They also find that the outcome could be negative disconfirmation, positive disconfirmation, or confirmation. When the service is below the expectation, the consumer satisfaction is negative. On the other hand, when the service exceeds the expectation, the consumer satisfaction is positive; consumer satisfaction is confirmed when the service is equal to the expectation.

5.3 Travel Characteristics of Participants

Table 5 presents the travel characteristics of 102 respondents by analyzing their current bicycle tourism experience, which was related to the first part of the questionnaire. This section will look at the main purpose of cycling tourism, who participants cycled with, and the selection of accommodation and transport.

According to the information in Table 5, the main purpose of bicycle tourists on the Hauraki Trail is to enjoy the holiday (66.7%, n = 68); more than a quarter of the respondents claimed that the main purpose of their bicycle tourism was to visit friends or relatives (26.5%, n = 27), followed by business, education and other reasons (a total of 7, 6.9%). Similarly, the Ministry of Tourism (2009)

and New Zealand Tourism (2013) studies showed that more than half of cycling tourists were holiday visitors, and less than one-third of tourists were visiting friends or relatives during their bicycle tourism.

Table 5

Travel characteristics of participants.

Variables	Frequency	Percent (%)	Variables	Frequency	Percent (%)
Main purpose of cycling tourism			**Main forms of transport**		
Holiday	68	66.7	Car/Van	45	44.1
Visit friend/relatives	27	26.5	Scheduled bus service	29	28.4
Business	4	3.9	Commercial ferry/Boat	15	14.7
Education	2	2.0	Tour Coach	9	8.8
Other	1	1.0	Other	4	3.9
Total	102	100.0	Total	102	100.0
Type of cycling			**Main form of accommodation**		
Cycling (on-road)	71	69.6	Backpacker	23	22.5
Mountain Biking (off-road)	27	26.5	Holiday park/Campground	21	20.6
Both	4	3.9	Private home of friend/relative	35	34.3
Total	102	100.0	Rented dwelling	9	8.8
			Hotel	8	7.8
Travel Companion			Motel	5	4.9
Myself	43	42.2	Other	1	1.0
Partner	26	25.5	Total	102	100.0
Family	19	18.6			
Friend	8	7.8			
Tour group	2	2.0			
Cycling group	3	2.9			
Other	1	1.0			
Total	102	100.0			

Table 5 also indicates that on-road cycling is more popular than mountain biking (off-road biking), as close to 70% of the respondents participated in on-road cycling, and just over a quarter of the

respondents participated in off-road cycling. Among all the respondents, only four attended both on-road and off-road cycling. Thyne and Young (1997) claimed that more people prefer on-road cycling to off-road biking, and in a 2013 study, New Zealand Tourism also found that international bicycle tourists preferred on-road cycling. However, according to the study of the Ministry of Tourism (2009), mountain biking was popular with domestic cycling tourists.

Regarding travel companionship, almost half the participants (43%) cycled alone, and about a quarter of them (26%) cycled with partner. Family (19%) and friends (8%) were also a popular choice of travel companionship, but only about 5% of participants cycled in groups, such as tour groups and cycling groups. The results of the studies by the Ministry of Tourism (2009) and New Zealand Tourism (2013) show a similar preference for travel companionship: almost half of international tourists cycled alone, and nearly 40% of international tourists and 30% of domestic tourists cycled in pairs. According to Ritchie (1998), the majority of tourists either cycled alone or with a partner in European countries.

The car/van was the most popular transport used to reach the starting point, with over 40% of participants using it as their main transport during their bicycle tourism. Participants also used scheduled bus services, commercial ferry/boat services, and tour coach for transport. According to the study by Ritchie (1998), 80% of bicycle tourists use bus services as their transport, however his study was done in 1998 (almost 20 years ago), which may explain the difference in today's transport preference. The study by the Ministry of Tourism (2009) found the car/van was the most popular choice of transport for cycling tourists which was consistent with this study. The findings of this study was consistent with the characteristics of cycling tourists as identified by New Zealand Tourism (2013).

For accommodation, over one-third of participants stayed at the private home of friends/relatives; backpackers and holiday parks/campgrounds were also very popular. Bicycle tourists tend to prefer cheaper forms of accommodation, such as, camping grounds and backpackers (Simonsen & Jorgenson, 1996). According to New Zealand Tourism (2013), the most popular accommodation for

international cycling tourists was the private home of friends/relatives; followed by backpackers, hotels, motels, and holiday parks/campgrounds. By contrast, domestic bicycle tourists preferred to stay in private dwellings, holiday parks, motels, and rented dwellings (Ministry of Tourism, 2009).

5.4 Travel Motivations of Bicycle Tourists

This section is related to the second and third part of the questionnaire and is divided into two subsections ('push' and 'pull' motivations). Firstly, descriptive analysis is used to explore the importance of motivations by ranking the means of 19 push motivational items and 14 pull motivational items, thereby allowing the main motivations of bicycle tourism in New Zealand to be analyzed. The five-point Likert-like scale was used to evaluate travel motivational items, presented as 1 = not important at all, 2 = unimportant, 3 = neither important or unimportant, 4 = important, and 5 = very important. Then, factor analysis is used to find underlying factors of these motivational items.

5.4.1 Descriptive Analysis of Push Motivational Items

Push motivations explain why people want to get away from the present situation (Perrett, 2007). According to the study of Ryan and Deci (2000), intrinsic push motivations reveal the actions and curiosity of people by showing the interests of individuals, developing their skills and abilities, broadening their horizons, and enlarging their extension of the knowledge, for instance, 'to learn about nature', 'to increase my knowledge' and 'to discover new places and things' were the intrinsic push motives for visitors to the Pirongia Forest Park in New Zealand (Pan & Ryan, 2007). Satisfaction, happiness, and enjoyment are other dimensions of push motivations (Buckworth, Lee, Regan, Schneider & DiClemente, 2007; Cini, Kruger & Ellis, 2013), for instance, 'to enjoy good weather' is regarded as a push motivation by Kozak (2002) and Jönsson and Devonish (2008).

Table 6 shows the rankings of importance for the push motivational items listed in the questionnaire. The rank of these 19 push motivational items is derived from their mean scores. According to Table 6, the highest mean score of push motivational item is 4.72, and the lowest mean score is 3.21. The means of all these motivational items are above 3, therefore, each item has a positive result.

Table 6

Descriptive analysis of push travel motivational items.

Motivational items	Mean	S.D.	Ranking
To seek adventure	4.72	0.534	1
For stimulation and excitement	4.56	0.638	2
To get close to nature	4.54	0.557	3
To gain an experience	4.51	0.671	4
To engage in sports	4.46	0.640	5
To enjoy good weather	4.44	0.669	6
To be active	4.39	0.632	7
To keep fit	4.38	0.676	8
To get away from daily life	4.30	0.942	9
To have fun	4.27	0.869	10
To experience peace and tranquility	4.19	0.962	11
To increase knowledge of new places	4.19	0.982	11
To visit other parts of New Zealand	4.11	1.004	13
It is an impressive thing to do	3.88	0.988	14
To develop confidence	3.87	1.114	15
To meet new people	3.35	1.199	16
To develop better cycling skills	3.30	1.296	17
To share my knowledge and cycling skills	3.22	1.232	18
To be with friends and family	3.21	1.748	19

Item ‘to seek adventure’ was found to be the most important push motivation for participants, with a mean value of 4.72. Evidently, the most important push motivations for bicycle tourism in New

Zealand are all related to adventure experience, this is consistent with the study of Ritchie, Tkaczynski and Faulks (2010), which focused on bicycle tourism in Australia, where adventure experiences were the most significant motivations for visitors to cycle. Since tourists link travel activity with their leisure interests, nature-based tourism and adventure tourism have achieved impressive development (Tabata, 1989; Millington, 2001). Cycling tourists were also interested in other kinds of adventure activities such as kayaking, rafting, climbing, and sky diving (New Zealand Tourism, 2013). New Zealand is considered one of the most famous adventure travel destinations in the world and many visitors come to New Zealand to seek a unique adventure experience. According to Plog's model, bicycle tourists are consider as 'near venturers' or 'venturers'. The five most important motivations also meet the 'Fulfillment', 'Self-esteem and Development' and 'Relaxation' needs in the TCL model of travel motivation.

12 out of 19 push motivations were almost equally important, because the means of these 12 items only had a .45 spread. These items were 'for stimulation and excitement', 'to get close to nature', 'to o gain an experience', 'to engage in sports', 'to enjoy good weather', 'to be active', 'to keep fit', 'to get away from daily life', 'to have fun', 'to experience peace and tranquility', 'to increase knowledge of new places', and 'to visit other parts of New Zealand'.

The mean of 'it is an impressive thing to do'(M = 3.88) and 'to develop confidence' (M = 3.87) were almost the same. These two items represented the 'esteem needs' of Maslow's model, and 'self-esteem and development needs' of TCP model.

The least important motivations included 'to meet new people' (M = 3.35), 'to develop better cycling skills' (M = 3.30), 'to share my knowledge and cycling skills' (M = 3.22), and 'to be with friends and family' (M = 3.21). Since over 40% of the participants cycled alone, the items 'To share my knowledge and cycling skills' and 'To be with friends and family' were not so important to them. Similarly, Ritchie, Tkaczynski and Faulks (2010) found that the 'to meet new people', 'to

develop my cycling skills' and 'to develop confidence in myself' items were not so important either, since the means of these motivation items were quite low.

5.4.2 Descriptive Analysis of Pull Motivational Items

Pull motivations analyse the attractions of travel destinations (Perrett, 2007). Table 7 shows the rankings of importance of pull motivational items involved in the questionnaire; the ranks of these 14 pull motivational items are based on their mean scores. According to Table 7, the highest mean score of a pull motivational item is 4.61 and the lowest is 3.28. Just like push motivations, the means of all these pull motivational items are above 3 as well, and each item has a positive result.

Table 7

Descriptive analysis of pull travel motivation.

Motivational items	Mean	S.D.	Ranking
Clear directional signage	4.61	0.692	1
Cycling is very famous in this area	4.57	0.777	2
Safe environment to cycle	4.48	0.767	3
Beautiful nature & environment	4.31	0.629	4
Good information on trail available (brochures, internet, information centre)	4.21	1.129	5
Developed cycling areas	4.19	0.767	6
Good facilities provided (toilets, rest areas)	4.15	0.813	7
Well maintained cycling trails	4.12	0.859	8
Interesting local things	4.09	0.759	9
Easily accessible	4.07	1.337	10
Trail is not too overcrowded	3.97	0.959	11
The area offers other (outdoor) activities that I'm interested in	3.94	0.768	12
Good accommodation options	3.87	1.050	13
Availability of parking space	3.28	1.492	14

The item ‘clear directional signage’ was the most important pull motivation for participants with a mean value of 4.61. Followed by ‘cycling is very famous in this area’ (M = 4.57), ‘safe environment to cycle’ (M = 4.48), and ‘beautiful nature & environment’ (M = 4.31). Evidently, the most important pull motivations for bicycle tourism in New Zealand are all related to the cyclers’ safety and the trail itself. These motivation items meet the ‘social needs’ and ‘safety and security needs’ according to the TCL model, and previous studies also found that motivation items related to safety were very important to visitors (Hua & Yoo, 2000; Li, Wen, & Leung, 2011; Tawil & Tamimi, 2013). The rate of injury in cycling is higher than any other tourist adventure activity in New Zealand (Bentley, Meyer, Page & Chalmers, 2001), and tourists tend to get hurt frequently when participating in other forms of adventure activities, such as horse riding, hiking and skiing. Safety and security were the most important motivation for women travelling abroad (Li, Wen and Leung, 2011). Similarly, Zhen (2011), and Tawil and Tamimi (2013) found that the first premise of travel was personal safety.

Nine out of 14 pull motivations were almost equally important, because the means of these nine items only had a .34 spread. These items were ‘good information on trail available (brochures, internet, information centre)’, ‘developed cycling areas’, ‘good facilities provided (toilets, rest areas)’, ‘well maintained cycling trails’, ‘interesting local things’, ‘easily accessible’, ‘trail is not too overcrowded’, ‘the area offers other (outdoor) activities that I’m interested in’, and ‘good accommodation options’. Since over one-third of the participants stayed at the private homes of friends/relatives, and also bicycle tourists preferred cheap accommodation options, item ‘good accommodation options’ was not so important to participants either.

There was a huge gap between the mean of item ‘availability of parking space’ (M = 3.28) and the rest pull motivation items. Over half the participants used scheduled bus services, commercial ferry/boat services, tour coach or other transport instead of cars, therefore, parking area was not so important for these participants.

Overall, among these push and pull motivational items, the item ‘To seek adventure’ ranks first, followed by ‘Clear directional signage’, ‘Cycling is very famous in this area’, ‘For stimulation and excitement’ and ‘To get close to nature’. For the five most important motivations items, ‘Clear directional signage’ and ‘Cycling is very famous in this area’ are pull motivations, and the rest are push motivations; also while 11 out of the 23 motivations items with mean scores above 4.00 are pull motivations. Therefore, at this stage, it can be confirmed that push motivations are the driving forces of bicycle tourists in New Zealand.

5.5 Underlying Factors of Travel Motivation

Compared with motivational items, the driving forces of travellers have a more vital significance (Jang & Wu, 2006). Factor analysis identifies the underlying relationships among related items by turning a large number of individual scale items into a small number of coherent sub-scales (Pallant, 2010). This study uses factor analysis to explore the underlying relations among the push and pull motivational items of bicycle tourists in New Zealand. Russell (2002) claimed that principal components analysis and principal axis factoring are the two useful methods of factor analysis. According to his study, these two methods use the same process to get results which are almost identical. He also suggested that principal axis factoring was more suitable for research with a small sample size, because it can provide higher accuracy. Thus, principal axis factoring and varimax rotation will be used to analyse the questionnaire. The rule ‘eigenvalue greater than one (EVG1)’ is used to determine how many factors to extract (Peterson, 2000; Pallant, 2010). According to Gaur and Gaur (2009), items that show low factor loading (less than .40) should be dropped. To ensure that the data was suitable for factor analysis, the Barlett’s Test of Sphericity value should be significant, which means the significance value should < .05, and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value should be .60 or above. Besides that, the Cronbach’s alpha (used to examine the reliability coefficient of this research, to measure the reliability of

questionnaire) should be greater than .70 in order to achieve an acceptable level of reliability (Nunnally, 1979). Nunnally and Bernstein (1994) suggested that the Cronbach's alpha should be greater than .70 for a good reliability, so when the Cronbach's alpha is greater than .90, the reliability is excellent.

5.5.1 Underlying Push Factors of Travel Motivation

As shown in Table 8, the KMO value is .768 and Bartlett's test is significance with a value of 683.116 (p = .000), therefore, factor analysis is appropriate for examining push motivational items. The item 'To be with friends and family' was dropped due to its low factor loading. The 18 push motivational items from the factor analysis resulted in 3 factor groups, which made up for over 63% of the variance. The three factors were labelled as 'Adventure and Sports', 'Personal Needs' and 'Relaxation Escape', and the Cronbach's alpha coefficients were .705, .778 and .747 respectively. The total Cronbach's alpha value was .837, and all the alphas were greater than .70, therefore, the reliability was good.

The first push factor 'Adventure and Sports' included nine motivational items. The adventure experience group included four motivational items: 'to get close to nature', 'to seek adventure', 'for stimulation and excitement' and 'to gain an experience'. In recent years, nature-based tourism and adventure tourism have achieved impressive development because tourists were relating travel activity with their leisure interests (Tabata, 1989; Millington, 2001). As the home of adventure tourism, New Zealand provides a lot of adventurous activities and extreme sports for people to choose from and engage in, and cycling is one of these activities. Other five items 'to share my knowledge and cycling skills', 'to engage in sports', 'to keep fit', 'to be active' and 'to develop better cycling skills' (sports) emphasized the motility of bicycle tourism. As cycling has became a mode of travel, the bicycle was an increasingly important form of vacation transportation in New Zealand (Lane, 1994; Ritchie, 1998). In recent years, more people tend to cycle while traveling

New Zealand, and many international tourists regard New Zealand as a good destination for cycle tourism. Cycling is a developing form of vacation recreation, and bicycle tourism is now a growing niche market in the tourism sector. Since these nine motivation items are highly valued by the respondents, this ‘Adventure and Sports’ factor is extremely important to this study.

The second motivation factor is ‘Personal Needs’, and includes five items: ‘to meet new people’; ‘to visit other parts of New Zealand’; ‘to increase knowledge of new places’; ‘it is an impressive thing to do’ and ‘to develop confidence’. These five motivational items are related to curiosity and auto excitation. By cycling to a new place, tourists get to know the local customs and culture, and meet new people, who help them to increase knowledge of the new place.

The third motivation factor is ‘Relaxation Escape’, and includes four items, labelled: ‘to get away from daily life’; ‘to have fun’; ‘to experience peace and tranquility’; and ‘to enjoy good weather’. Since these four items are highly valued by the respondents, the ‘Relaxation Escape’ factor is also important to this study. It is also regarded as an important part of motivational theory, as illustrated in Maslow’s Hierarchy of Needs Theory, Travel Career Pattern (TCP), and Ross’s model. All data was collected during the Christmas Holiday, and over the long weekend, public holidays are a great time for domestic and international tourists to rest, get away from their busy daily life and do something interesting. Furthermore, New Zealand weather is very pleasant during the summer season, and nice weather is always good for cycling.

Table 8

Factor groupings of push motivational items.

Motivation items	Factor loading	Eigenvalue	% Variance explained	Cronbach's alpha value
Factor 1: Adventure and Sports		**11.004**	**37.911**	**.705**
To share my knowledge and cycling skills	.731			
To get close to nature	.691			
To engage in sports	.661			
To keep fit	.625			
To seek adventure	.618			
To be active	.607			
To develop better cycling skills	.504			
For stimulation and excitement	.443			
To gain an experience	.441			
Factor 2: Personal Needs		**4.465**	**15.384**	**.778**
To meet new people	.690			
To visit other parts of New Zealand	.579			
To increase knowledge of new places	.534			
It is an impressive thing to do	.512			
To develop confidence	.407			
Factor 3: Relaxation Escape		**3.024**	**10.417**	**.747**
To get away from daily life	.749			
To have fun	.689			
To experience peace and tranquility	.673			
To enjoy good weather	.555			
Total Variance explained			**63.712**	
Total Cronbach's alpha value			**.837**	
KMO Measure of sampling adequacy			**.768**	
Bartlett's Test of Sphericity			**.000**	

5.5.2 Underlying Pull Factors of Travel Motivation

As shown in Table 9, the KMO value is .719 and Bartlett's test is significant with a value of 578.895 (p = .000), therefore, factor analysis is appropriate for examining push motivational items. Six items were dropped, including 'beautiful nature and environment', 'the area offers other (outdoor) actives that I'm interested in', 'easily accessible', 'good information on trail available (brochures, internet, information centre)', 'availably of parking space' and 'good accommodation options'.

Table 9

Factor groupings of pull motivational items.

Motivation items	Factor loading	Eigenvalue	% Variance explained	Cronbach's alpha value
Factor 1: Trail Related		**8.031**	**37.361**	**.764**
Well maintained cycling trails	.788			
Trail is not too overcrowded	.588			
Good facilities provided (toilets, rest areas)	.552			
Clear directional signage	.434			
Factor 2: Destination Attractions		**3.912**	**17.936**	**.746**
Developed cycling areas	.785			
Safe environment to cycle	.758			
Cycling is very famous in this area	.630			
Interesting local things	.467			
Total Variance explained			**55.297**	
Total Cronbach's alpha value			**.819**	
KMO Measure of sampling adequacy			**.719**	
Bartlett's Test of Sphericity			**.000**	

The eight pull motivational items from the factor analysis resulted in two factor groups, which account for over 55% of the variance. The two factors were labelled as ‘Trail Related’ and ‘Destination Attractions’, with Cronbach’s alpha coefficients of .764 and .746 respectively. The total Cronbach’s alpha value was .819, and all the alphas were greater than .70, therefore, the reliability was good.

The first pull factor ‘Trail Related’ included four motivational items: ‘well maintained cycling trails’; ‘trail is not too overcrowded’; ‘good facilities provided (toilets, rest areas)’; ‘clear directional signage’. These items were focused on the trail itself. Tourists preferred to cycle in a quiet place, as they were looking forward to an escape from daily life and to enjoy peace and tranquility; safety was another important concern. Evidently, tourists were more concerned about the condition of the cycling trail, especially directional signage.

The second pull factor is ‘Destination Attractions’, and it included four motivational items: ‘developed cycling areas’; ‘safe environment to cycle’; ‘cycling is very famous in this area’; ‘interesting local things’. Since these four items were highly valued by the respondents, this factor was important to this study as well. Tourists paid attention to not only trail itself, but also the destination area, therefore, any regional development would definitely influence the choice of destination for bicycle tourists. Interesting local features such as the Karangahake Gorge, Waikino Railway Station, Victoria Battery Site, and Waihi Gold Mining were also important to bicycle tourists.

5.6 Travel Motivation Differences by Sample Characteristics

One-way ANOVA and Tukey’s HSD post hoc tests were used to examine whether there was any significant difference in bicycle tourism motivation factors among the sample characteristics. Gaur

and Gaur (2009) also stated that one-way ANOVA would be suitable for testing independent or unrelated samples. In the test, motivational factors are dependent variables, while demographic variables are independent variables (including age, gender, similar previous experience, main purpose of cycling tourism, type of cycling, travel companion, main forms of transport, main form of accommodation, overall satisfaction, and recommendation to others). Table 10 shows the results of the one-way ANOVA and Tukey's post hoc test results when significance value is smaller than .05. The full results of the one-way ANOVA and Tukey's post hoc test are attached as Appendix C.

As shown in Appendix C, there is no significant relationship between age, similar previous experience, main purpose of cycling tourism, type of cycling, travel companion, overall satisfaction and recommendation, and the bicycle tourism motivation factors because the significance values are greater than .05. However, there is a significant difference between motivation factors and sample characteristics.

Firstly, the one-way ANOVA indicated a statistical significant difference between gender and push factor 1 'Adventure and Sports'. Male bicycle tourists (M = 4.41) were more motivated by adventure and sporting activities than female tourists (M = 3.93). The significant gender difference can also be found in push factor 2 ('Personal Needs'), according to the results of Tukey's HSD post hoc test, male tourists (M = 4.09) were more motivated by the 'Personal Needs' factor than their female counterparts.

The findings showed similarities and differences compared to previous studies. Mceczkowski (1990), McGehee, Loker-Murphy and Uysal (1996), and Meng and Uysal (2008) found that unlike nature-based tourism, there was a significant difference between the two genders (male and female) for bicycle tourism motivation. Other researchers also noticed that male cyclists were more motivated by sports, recreational activities and adventure, whereas culture, opportunities for family bonding, and prestige were more important for female tourists (Mceczkowski, 1990; Shaw, 1994; McGehee, Loker-Murphy & Uysal, 1996; Andreu, Kozac, Avci & Cifter, 2005). Men were also

more interested in social entertainment, such as playing sports games, having meals at a restaurant, and watching films (Marsden & Reed, 1983), and although, nowadays, women have more opportunities to participate in sporting activities compared with the past, sport in general is still regarded mainly as a men's activity (Shaw, 1994).

A significant difference was also found between the main forms of transport and two pull factors: 'Trail Related' and 'Destination Attractions'. The results of Tukey's HSD post hoc test showed that visitors who used the tour coach as their main form of transport were more motivated by 'Trail Related' (M = 4.58) and 'Destination Attractions' (M = 4.75). Therefore, the pull factors were more important to tourists who joined a tour group. This suggests that better trails and more interesting destination attractions are required in order to attract more tour group tourists.

Finally, a significant difference was also found between the main form of accommodation and pull factor 2 ('Destination Attractions'). Based on the Tukey's HSD post hoc test, bicycle tourists who stayed at hotels were more motivated by pull factor 2 'Destination Attractions'. Since they probably paid a lot for their accommodation, these visitors would require more interesting local activities and attractions.

On the contrary, some findings based on the ANOVA results were quite different compared to previous studies. Andreu, Kozac, Avci and Cifter (2005) found that female tourists were more motivated by relaxation and escape, whereas Mceczkowski (1990) claimed that women considered safety as the most important condition. Similarly, Westwood, Pritchard and Morgan (2000) argued that women tourists considered comfort, safety and staff attitudes as more important, while services and facilities were more important factors for men. Female travelers also believed that personal services and reasonable prices were more important, while men paid more attention to business services and hotel facilities (McCleary, Weaver & Lan, 1994). Additionally, female bicycle tourists were also concerned about visitor information centres, road quality, and biking services. (Ritchie, 1998). However, in this study, there was no statistically significant difference between gender, push factor 3 'Relaxation Escape', and pull factors.

Table 10

Travel motivation differences by sample characteristics (Sig. <.05).

	Push Factor 1	Push Factor 2	Push Factor 3	Pull Factor 1	Pull Factor 2
Gender					
Male M	4.41	4.09			
Female M	3.93	3.55			
F statistic	39.03	13.05			
Sig.	**.000**	**.000**			
Sig. diff. between groups	1&2	1&2			
Main forms of transport					
Car/Van M				4.23	4.31
Scheduled bus service M				4.17	4.41
Commercial ferry/Boat M				4.23	4.20
Tour Coach M				4.58	4.75
Other M				3.31	3.50
F statistic				3.00	4.03
Sig.				**.022**	**.005**
Sig. diff. between groups				4&5	4&5
Main form of accommodation					
Backpacker M					4.41
Holiday park/Campground M					4.30
Private home of friend/relative M					4.41
Rented dwelling M					4.08
Hotel M					4.44
Motel M					4.15
Other M					2.50
F statistic					2.48
Sig.					**.028**
Sig. diff. between groups					5&7

5.7 Summary

The aim of this study was to understand the motivations of bicycle tourism motivation in New Zealand. The data used in this study was based on the questionnaires collected from 102 respondents, by means of descriptive analysis, cross tabulation, factor analysis and one-way ANOVA. Unfortunately, there was limited literature that could be used as a comparison with the findings of this study, since the gender differences in travel motivation is still a void in the academic research arena.

Descriptive analysis was used to analyse characteristics of participants in order to identify the main characteristics and demographics of bicycle tourists, and provide an idea of who cycle tourists are in New Zealand. The results of descriptive analysis showed that more male tourists participated in this study, because men tend to be more interested in physical activities and sports. Bicycle tourism was popular with young people, since over half of the respondents were younger than 35 years old. The overall satisfaction of bicycle tourism experience was very high and over 90% of participants willing to recommend bicycle tourism to others. Therefore, the relationship between tourists and bicycle tourism was very strong.

The descriptive analysis of motivational items investigated the main push and pull motivations, and explained why tourists participate in cycling activities while traveling in New Zealand. Item ‘to seek adventure’ had the highest mean among 19 push motivations, and the mean of item ‘clear directional signage’ ranked the first among 14 pull motivations. Therefore, the most important motivation for bicycle tourism in New Zealand was related to adventure experience and trail itself. Due to the high means of these two items, bicycle tourists in New Zealand require unique adventure experience and trails in great conditions.

The factor analysis of these motivational items classified these motivations items into different underlining factors. As shown in the results of factor analysis, ‘Adventure and Sports’ had the highest proportion of variance explained for push motivations, while ‘Trail Related’ represented the

higher percentage of variance explained for pull motivations. The impressive development of nature-based tourism and adventure tourism promotes bicycle tourism in New Zealand. New Zealand provides a lot of adventurous activities and extreme sports for people to choose from and participate in. Cycling is a developing form of vacation recreation, and bicycle tourism is now a growing niche market in the tourism sector. In terms of pull factors, tourists preferred to cycle in a quiet place, as they were looking forward to an escape from daily life and to enjoy peace and tranquility. Tourists were more concerned about the condition of the cycling trail, especially directional signage.

Finally, the one-way ANOVA was used to examine whether there were any significant differences in bicycle tourism motivation factors among the sample characteristics in order to provide better products to serve the bicycle tourism market segment. The results of the one-way ANOVA showed some agreement with previous research. Gender difference could be found in bicycle tourism motivations. Cyclists who travelled in a tour group required better trails and more interesting destination attractions. Besides that, bicycle tourists who stayed at hotels were more motivated by interesting local activities and attractions. Therefore, male cyclists, cyclists who use the tour coach as their main form of transport, and cyclists who stay at hotels, can all be regarded as a niche in the tourism market.

By doing all of these tests, the results of this study provided a better understanding of bicycle tourism in New Zealand especially in the Hauraki Rail Trail. This research also analysed the significant difference in bicycle tourism motivation factors among the sample characteristics based on push and pull theory. Therefore, the aim of this study is achieved.

CHAPTER 6 LET'S WRAP IT UP

6.1 Introduction

The aim of this study has been to understand the motivations of bicycle tourists in New Zealand based on the push and pull theory. A quantitative research approach was adopted, and 102 tourists who cyclied in the Hauraki Rail Trail participated. The findings of this study provide a better understanding of bicycle tourism and trvel motivations for bicycle tourists. This chapter concludes the study by restating the state of bicycle tourism in New Zealand, ingeminating the findings, and discussing the implications for future research.

6.2 Bicycle Tourists in New Zealand

Cycling is a developing form of vacation transportation, and bicycle tourism is a growing niche market in the tourism sector. Cycling is not only a popular activity for tourists, but also a fantastic way to explore New Zealand. In 2008, 356,900 domestic tourists participated in cycling activities and 318,000 international tourists cycled from 2008 to 2012 when they were in New Zealand. According New Zealand Tourism (2013), more than 13.8 millions of international tourists are interested in and would plan a cycling trip, which means more tourists are willing to cycle while traveling around New Zealand. Therefore, the New Zealand government proposed the New Zealand Cycleway within 23 cycle trails based around New Zealand's iconic attractions to create a high quality tourism asset, to enhance New Zealand's competitiveness as a tourism destination, and to stimulate long-term economic benefits. The Hauraki Rail Trail is one of these great trails.

Bicycle tourism brings great economic, social and environmental benefits since cycling tourists almost spend more time and money than other tourists in New Zealand. Almost 25% of tourism operators and stakeholders claim that the cycling trails have had positive effects for their business and around 50% of businesses consider the cycling trails beneficial to them in the foreseeable

future. Thus, local and regional governments, local and regional tourism organisation, tour operators, the local community and other stakeholders should pay more attention to providing better cycle route networks and bicycle tourism product to attract more tourists.

6.3 Summary of the Results

A total of 102 participants were included in this research, with 63 male and 39 females. The age group of cycling tourists ranged from 16 years to over 56 years, with almost 70% aged under than 35 years. In terms of gender, the research showed that over 60% of the respondents were male cyclists, it was not so surprising to get more male participants since they tend to be more motivated by sport activities. A majority of the respondents had engaged in bicycle tourism in the past, this is in agreement with previous studies which found that cycling tourists were highly likely to have had similar travel experiences before. The overall satisfaction of these participants was quite high and almost all of them would recommend cycling tourism to others.

Descriptive analysis was used to analyze travel characteristics of these participants, and it was found that the main purpose of cycling tourism was to enjoy a holiday (66.7%). It was also confirmed that on-road cycling was more popular than mountain biking. In terms of travel companionship, almost half participants cycle alone. The car/van was the most popular choice of transportation, and one-third of the participants stayed at the private homes of friends/relatives during their cycling trip in New Zealand.

The 19 push motivational items and 14 pull motivational items were ranked by mean values, and the results showed that the five most important push motivation items for participants were ‘to seek adventure’, ‘for stimulation and excitement’, ‘to get close to nature’, ‘to gain an experience’ and ‘to engage in sports’. Therefore, the most important push motivations for bicycle tourism in New Zealand were all related to the adventure experience and a great environment. The five least important push motivations were ‘to develop confidence’, ‘to meet new people’, ‘to develop better

cycling skills', 'to share my knowledge and cycling skills' and 'to be with friends and family'. This is because over 40% of the participants cycled alone. In terms of pull motivational items, the five most important items were 'clear directional signage', 'cycling is very famous in this area', 'safe environment to cycle', 'beautiful nature & environment' and 'good information on trail available (brochures, internet, information centre)'. Clearly, the most important pull motivations for bicycle tourists in New Zealand were all related to safety and the trail itself. The least important pull motivation items for the respondents were 'easily accessible', 'trail is not too overcrowded', 'the area offers other (outdoor) activities that I'm interested in', 'good accommodation options' and 'availability of parking space'. Since over half the participants used scheduled bus services, commercial ferry/boat services, tour coach or other forms of transport instead of the car, parking was not very important for these participants. Also, since one-third of the participants stayed at the private homes of friends/relatives, and bicycle tourists usually preferred staying at cheaper places, the 'good accommodation options' was not important to them either.

After descriptive analysis, factor analysis was used to determine the underlying factors of push and pull motivational items, since driving forces for travellers had a vital significance compared with motivational items. The push motivational items were analysed into three factors: 'Adventure and Sports', 'Personal Needs' and 'Relaxation Escape'. Nature-based tourism and adventure tourism have achieved impressive development since tourists related travel activity with their leisure interests (Tabata, 1989; Millington, 2001). As the home of adventure tourism, New Zealand provides numerous adventurous activities and extreme sports for people to choose from and engage in, and cycling is one of these activities. On the other hand, the pull motivational items were analysed into two factors: 'Trail Related' and 'Destination Attractions'. Tourists preferred to cycle in quiet places, because they were looking forward to an escape from daily life, and wanted to enjoy peace and tranquility; safety was another important concern for them. Therefore, tourists were more concern about the condition of the cycling trails, especially directional signage and safety areas.

Finally, One-way ANOVA was used to examine whether there was any significant difference in bicycle tourism motivation factors among the sample characteristics. The results of the test showed a significant gender difference in push factor 1 ‘Adventure and Sports’ and push factor 2 ‘Personal Needs’: male bicycle tourists were more motivated by adventure and sport s activities than female tourists. A significant difference was also found between participants who used the tour coach as their main form of transport, and two pull factors: ‘Trail Related’ and ‘Destination Attractions’. Better trails and more interesting destination attractions would be required in order to attract more tour group tourists. A significant difference was also found between respondents who stayed in hotels and pull factor 2 ‘Destination Attractions’: these cyclist would require more interesting local activities and attractions since staying at a hotel would cost much more than other accommodation options. It can be regarded as a niche market for bicycle tourists in New Zealand.

6.4 Contributions of This Study

The purpose of this study was to bridge the gap for bicycle tourists in New Zealand. This study aimed to understand bicycle tourism in New Zealand and analyse the significant difference in bicycle tourism motivation factors among the sample characteristics based on push and pull theory. Therefore, the results of this research will make a significant contribution to academia and destination marketers, because the findings will provide a better understanding of the motivations of bicycle tourists in New Zealand, which will assist designing more effective marketing strategies.

The findings are also meaningful to researchs on bicycle tourism and travel motivation in New Zealand. Because no published study focuses on the motivations of bicycle tourism in the country based on the push and pull theory, and travelers may have different push factors while sharing the same pull factor (Klenosky, 2002).

Besides that, the results of this study illustrate that the motivational factors of bicycle tourists in the Hauraki Rail Trail differ from previous studies. The most significant push factor is ‘Adventure and Sports’ and the most important pull factor is related to the trail itself.

Furthermore, this research also found some significant differences in bicycle tourism motivation factors among the sample characteristics. This study determined that male cyclists, cyclists who use the tour coach as their main form of transport, and cyclists who stay at hotels, can all be regarded as a niche in the bicycle tourism market.

6.5 Implications for Further Research

The end of this research identifies three implications for further studies. Firstly, for this study, a quantitative approach was adopted to analyse the motivations of bicycle tourism in New Zealand, thus, there was no particular framework involved in this research. Future studies could employ a qualitative method to gain a universal understanding of bicycle tourism motivations. Secondly, the results and findings of this research showed some significant differences in bicycle tourism motivation factors among the sample characteristics. Further studies could be based on male cyclists, cyclists who use the tour coach as their main form of transport, or cyclists who stay at hotels as a sample, in order to better understand these niche markets. Thirdly, questionnaires were sent out in Waikino and Thames during summer holidays (Christmas holiday period and long weekend for the Auckland Anniversary public holiday). Survey sites and time frame may influence the results. In order to prodive an overall understanding of bicycle tourism motivations in The Hauraki Rail Trail, future studies could use the same methods to test bicycle tourist motivations at some other different places on the trail in different time.

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Appendix A: Participant Information Sheet

Participant Information Sheet

Date Information Sheet Produced:

11 May 2014

Project Title

Understanding motivations of bicycle tourists in New Zealand: The case of the Hauraki Rail Trail

An Invitation

Dear cyclist,

My name is Ying Sheng and I am doing a dissertation as part of my Master of International Tourism Management at AUT University. You are warmly invited to participate in this research project. I believe that you are able to offer valuable insight into understanding the motivations of bicycle tourists in New Zealand.

You are asked to fill in a short questionnaire which will not take more than 10-15 minutes to complete. The questionnaire will analyse your motivations to cycle on the Hauraki Rail Trail.

Participation in this research is from an informed and voluntary perspective. You may withdraw at any stage. All information you provide will remain completely anonymous.

What is the purpose of this research?

This research is going to examine what motivates cyclists to ride the Hauraki Rail Trail. This project is contributing to the researcher's Master dissertation at AUT University.

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

You have been chosen as a potential participant because you are cycling on the Hauraki Rail Trail and because you are over 16 years of age.

What will happen in this research?

You are asked to answer a short, anonymous questionnaire to reflect on your motivations to cycle the Hauraki Rail Trail as well as your satisfaction with different aspects of your cycling experience.

What are the discomforts and risks?

There will be minimal discomforts or risk since the questionnaire is entirely anonymous and you will not have to reveal your identity at any stage.

How will these discomforts and risks be alleviated?

All information you provide will remain anonymous and no participants can be identified. You are able to withdraw at any time, and you also may refuse to answer any specific questions.

What are the benefits?

The study will be important for both academics and practitioners to understand the motivations of tourists cycling the Hauraki Rail Trail. Limited research has been carried out around bicycle tourist in New Zealand to date. The findings of this study will help to improve the cycling experience in the future and will have implications for local and regional governments, local and regional tourism organisation, tour operators, the local community and other stakeholders.

How will my privacy be protected?

All information gathered will remain anonymous and will only be used for data related to this study.

What are the costs of participating in this research?

There are no financial costs of participating in this research. The questionnaire will take approx. 10-15 minutes of your time to complete.

What opportunity do I have to consider this invitation?

The researcher will personally address you in Waikino or Thames and ask whether you are willing to take part in this research. You may then agree or refuse to take part. Refusing to participate or withdrawing from the research at any time will not lead to any disadvantages to you.

How do I agree to participate in this research?

Please let the researcher know if you agree to participate in this study and she will hand out the questionnaire to you. You can choose to fill in the questionnaire on-site and hand it back to the researcher afterwards or take it with you, fill it in at your leisure and post it back using the prepaid envelopes provided.

Will I receive feedback on the results of this research?

If you wish to find out more about the findings of this research project, please visit AUT Scholarly Commons, the central archive and repository for the preservation of AUT's research and scholarly output at http://aut.researchgateway.ac.nz/. The findings are expected to be published in December 2015.

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, Charles Johnston, charles.johnston@aut.ac.nz, 09 921 9999 ext. 5120.

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz* , 09 921 9999 ext. 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

Ying Sheng

Auckland University of Technology

Email: shengyinginnz@gmail.com

Project Supervisor Contact Details:

Dr Charles Johnston

School of Hospitality & Tourism

Auckland University of Technology

Ph.: 09 921 9999 ext. 5120

Email: charles.johnston@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 27 May 2014, AUTEC Reference number 14/165.

Appendix B: Questionnaire

Questionnaire

Understanding the motivations of bicycle tourists in New Zealand:

The case of the Hauraki Rail Trail

This study seeks to analyse motivations of bicycle tourists in New Zealand. It is part of my dissertation within the Master of International Tourism Management at AUT University.

The anonymous survey will take approximately 10 to 15 minutes to complete. By completing this questionnaire you are indicating your consent to participate in this research.

Thank you very much for your support.

Part 1: Your Current Cycling Trip

1. **What is the main purpose of cycling tourism?**

   ☐ Holiday

   ☐ Visit friend/relatives

   ☐ Business

   ☐ Education

   ☐ Other (please specify) _____

2. **What type of cycling do you participate in?**

   ☐ Cycling (on-road)

☐ Mountain Biking (off-road)

☐ Both

3. Who are you cycling with?

☐ Myself

☐ Partner

☐ Family

☐ Friend

☐ Tour group

☐ Cycling club

☐ Other (please specify) _____

4. What forms of transport did you use to reach your starting point?

☐ Car/Van

☐ Scheduled bus service

☐ Commercial ferry/Boat

☐ Tour Coach

☐ Other _____

5. What is the main form of accommodation during your bicycle tourism?

☐ Backpackers

☐ Holiday parks/Campgrounds

☐ Private home of friends/relatives

☐ Rented dwellings

☐ Hotels

☐ Motels

☐ Other _____

6. How satisfied are you overall?

☐ Very Dissatisfied

☐ Dissatisfied

☐ Neutral

☐ Satisfied

☐ Very Satisfied

7. Will you recommend bicycle tourism to others?

☐ Yes

☐ No

Part 2: Motivations to cycle

8. Why do you cycle in general?

(1 = not relevant; 5 = very relevant)

		not relevant				**very relevant**
a)	To seek adventure	1	2	3	4	5
b)	To gain an experience	1	2	3	4	5
c)	To meet new people	1	2	3	4	5
d)	For stimulation and excitement	1	2	3	4	5
e)	To visit other parts of New Zealand	1	2	3	4	5
f)	To increase knowledge of new places	1	2	3	4	5
g)	To have fun	1	2	3	4	5
h)	To experience peace and tranquility	1	2	3	4	5
i)	To get away from daily life	1	2	3	4	5

j)	To enjoy good weather	1	2	3	4	5
k)	To share my knowledge and cycling skills	1	2	3	4	5
l)	To be with friends and family	1	2	3	4	5
m)	To develop better cycling skills	1	2	3	4	5
n)	It is an impressive thing to do	1	2	3	4	5
o)	To develop confidence	1	2	3	4	5
p)	To keep fit	1	2	3	4	5
q)	To engage in sports	1	2	3	4	5
r)	To be active	1	2	3	4	5
s)	To get close to nature	1	2	3	4	5

Part 3: Motivations to cycle in a specific destination

9. Why do you cycle in a specific destination?

(1 = not relevant; 5 = very relevant)

		not relevant				**very relevant**
a)	Well maintained cycling trails	1	2	3	4	5
b)	Trail is not too overcrowded	1	2	3	4	5
c)	Developed cycling areas	1	2	3	4	5
d)	Cycling is very famous in this area	1	2	3	4	5
e)	Clear directional signage	1	2	3	4	5
f)	Safe environment to cycle	1	2	3	4	5
g)	Good facilities provided (toilets, rest areas)	1	2	3	4	5
h)	Beautiful nature & environment	1	2	3	4	5
i)	To learn more about the local area	1	2	3	4	5
j)	The area offers other (outdoor) activities that I'm interested in	1	2	3	4	5

k)	Easily accessible	1	2	3	4	5
l)	Good information on trail available (brochures, internet, information centre)	1	2	3	4	5
m)	Availability of parking space	1	2	3	4	5
n)	Good accommodation options	1	2	3	4	5

Part 4: Personal information

10. How old are you?

☐ 16 - 25

☐ 26 - 35

☐ 36 - 45

☐ 46 - 55

☐ 56+

11. What is your gender?

☐ Male

☐ Female

12. Have you done bicycle tourism before?

☐ Yes

☐ No

Appendix C: Travel Motivation Differences by Sample Characteristics

	Push Factor 1	Push Factor 2	Push Factor 3	Pull Factor 1	Pull Factor 2
Age					
16 - 25 M	4.20	3.78	4.32	4.16	4.12
26 - 35 M	4.29	3.91	4.35	4.35	4.49
36 - 45 M	4.29	4.08	4.38	4.26	4.45
46 - 55 M	4.06	3.40	3.89	3.82	4.29
56 + M	3.85	4.53	4.00	3.75	4.42
F statistic	1.09	1.78	0.96	1.58	2.17
Sig.	.364	.139	.433	.186	.078
Gender					
Male M	4.41	4.09	4.27	4.21	4.37
Female M	3.93	3.55	4.35	4.22	4.28
F statistic	39.03	13.05	0.29	0.01	0.57
Sig.	**.000**	**.000**	.590	.930	.451
Sig. diff. between groups	1&2	1&2			
Similarly Experience					
No M	4.36	3.73	4.10	4.01	4.18
Yes M	4.20	3.91	4.35	4.25	4.36
F statistic	2.00	0.79	2.15	2.09	1.48
Sig.	.160	.376	.146	.151	.226
Main purpose of cycling tourism					
Holiday M	4.18	3.85	4.26	4.18	4.37
Visit friend/relatives M	4.30	3.99	4.36	4.20	4.27
Business M	4.50	3.65	4.25	4.38	4.13
Education M	4.33	3.40	4.75	4.75	4.38
Other M	4.78	4.60	4.75	4.75	4.25
F statistic	1.18	0.66	0.47	0.63	0.27
Sig.	.326	.625	.758	.643	.894

Type of cycling					
Cycling (on-road) M	4.22	3.78	4.25	4.22	4.38
Mountain Biking (off-road) M	4.22	4.08	4.36	4.09	4.17
Both M	4.56	4.35	4.75	4.81	4.63
F statistic	1.12	2.35	1.25	2.30	1.86
Sig.	.329	.101	.292	.106	.161
Travel Companion					
Myself M	4.23	3.72	4.29	4.19	4.17
Partner M	4.20	4.03	4.31	4.19	4.41
Family M	4.27	3.94	4.25	4.18	4.45
Friend M	4.22	4.08	4.38	4.13	4.50
Tour group M	3.94	3.50	4.13	4.63	4.63
Cycling group M	4.37	4.00	4.58	4.58	4.42
Other M	4.56	4.60	4.50	4.75	4.75
F statistic	0.31	0.80	0.16	0.45	1.09
Sig.	.930	.572	.986	.842	.377
Main forms of transport					
Car/Van M	4.25	3.89	4.22	4.23	4.31
Scheduled bus service M	4.20	3.72	4.32	4.17	4.41
Commercial ferry/Boat M	4.17	3.97	4.30	4.23	4.20
Tour Coach M	4.43	4.38	4.78	4.58	4.75
Other M	4.03	3.45	4.06	3.31	3.50
F statistic	0.81	1.64	1.55	3.00	4.03
Sig.	.520	.171	.194	**.022**	**.005**
Sig. diff. between groups				4&5	4&5
Main form of accommodation					
Backpacker M	4.11	4.10	4.38	4.26	4.41
Holiday park/Campground M	4.23	3.74	4.25	4.24	4.30
Private home of friend/relative M	4.33	3.94	4.36	4.31	4.41
Rented dwelling M	4.12	3.67	4.25	4.00	4.08
Hotel M	4.31	4.15	4.44	4.22	4.44

Motel M	4.18	3.08	3.60	3.65	4.15
Other M	4.11	3.40	4.25	3.75	2.50
F statistic	0.76	1.78	1.17	1.06	2.48
Sig.	.606	.111	.331	.395	**.028**
Sig. diff. between groups					5&7
Overall satisfaction					
Very Dissatisfied M	4.06	3.90	4.38	4.31	4.38
Dissatisfied M	4.15	4.07	4.21	4.17	4.46
Neutral M	4.27	4.26	4.36	4.25	4.54
Satisfied M	4.17	3.66	4.22	4.13	4.23
Satisfied M	4.28	3.93	4.35	4.25	4.34
F statistic	0.50	1.18	0.24	0.18	0.51
Sig.	.737	.323	.917	.947	.732
Recommend bicycle tourism to others					
No M	4.11	4.00	4.28	4.23	4.43
Yes M	4.24	3.87	4.30	4.21	4.32
F statistic	0.81	0.26	0.02	0.01	0.29
Sig.	.370	.608	.894	.941	.590