PERCEIVED RISK
IN
ADVENTURE TOURISM

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Abstract

While the phenomenon of risk is something that people generally try to minimise in their lives, the concept of adventure tourism presents an interesting set of circumstances in that tourists actually seek, or at the very least accept, the risk of sustaining physical injury during the adventure tourism experience. This makes adventure tourism unique when compared to all other types of tourism. In order to explore and add value to this difference, the aims of this study are to determine the importance of experiencing risk in choosing to participate in different adventure tourism activities, to understand the motivations, levels of satisfaction, and post-activity intentions of adventure tourists, so that specific marketing strategies may be developed. A total of 612 people were surveyed both before and after taking part in three different adventure tourism activities (whitewater rafting, bungy jumping, and sailing). It was found that prior experience in the given activity did not present itself as a factor that lowered risk as a motivation, that no motivational differences existed between nationalities, and that varying levels of inferred satisfaction are present. Marketing strategies for each of the activities, based on multivariate motivations, are recommended.

Declaration of Originality

I, Martin Fluker, declare that the PhD thesis entitled "Perceived Risk in Adventure Tourism" is no more than 100,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This thesis contains no material that has been submitted previously, in whole or part, for award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature: 

Date: February, 2005.

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1 Chapter 1: Introduction

Risk is something that all people must contend with. Risk occurs when the consequences associated with a decision are uncertain and some outcomes are more desirable than others (Roehl and Fesenmaier, 1992). Whether it is deciding to cross a road at a particular place, selecting a particular superannuation scheme, or choosing to place your trust in a particular person, the risk is that the outcome may not be as one would hope for. In an attempt to alleviate this burden of risk, people often employ risk reduction strategies. They may for example look both ways before crossing the road, seek prudent advice on financial investments, or only put their trust in qualified professionals. In some cases, government legislation provides this mechanism in the form of such laws as requiring seatbelts to be worn in vehicles or helmets to be worn by cyclists. However, in most situations, individual adults are largely responsible for accepting the amount of risk they are comfortable with, and with the consequences ranging from mildly disruptive to hugely significant.

While risk can never be totally eradicated from our lives, it is argued that most people have a general attitude of seeking to reduce, or at least insure themselves, against the amount of risk they encounter. This is because "risk creates a feeling of discomfort, or disequilibrium, which motivates the individual to engage in various strategies intended to reduce the level of perceived risk associated with the decision process" (Cheron and Ritchie, 1982, p. 140). People don't want to be hit by a bus, lose their superannuation or be short-changed by someone. To protect the family house, an insurance policy will be taken. However, the paradox exists where people voluntarily participate in activities that contain inherent risk. Ewert (1989) explains how it is ironic that as our society has sought to protect itself from risk, increasing numbers of individuals have sought the personal testing ground of outdoor adventure pursuits. In other words, within our contemporary urban existences, as people become more and more sheltered from the risks they must face, they are drawn to the escapism of adventure. One example of this is

when people participate in adventure tourism, and it is this phenomenon that is the focus of this study.

Adventure tourism is a large and growing sector of the domestic and international tourism industry and this "rapid growth of Australia's adventure tourism industry over the last three decades demonstrates an existing and increasing demand for the opportunity to engage in risk taking bahaviours (Morgan and Fluker, 2003, p. 46). Mallet (1989), as quoted by Buckley (2000) estimates that the value of the NEAT (nature, eco- and adventure tourism) industry in the USA, is $US220 billion per annum. In Australia, the estimated value of NEAT tourism is between $AUS7 and $AUS15 billion per annum (Buckley, 2000, p. 439). According to Hall (1992, p. 143), "adventure tourism is a growing segment of the special interest tourism market". Additionally, Touhy (2003, p.13) quotes Marc Sleeman, director of sales and marketing at Queensland's Raging Thunder Adventures (a company specializing in adventure tourism programs) who confirms that "the demographic of holiday makers wanting to do adventure sports has widened dramatically". Blamey and Hatch (1995) showed that the participation in whitewater rafting increased by 36 percent between the years of 1994 and 1995, and 11 percent for snorkelling and scuba diving between 1989 and 1995. "In comparison, the total number of international visitors to Australia between 1989 and 1995 increased by just under 10 percent per year (Blamey and Hatch, 1995, p. 4).

This growth in, and significance of, adventure tourism is associated with a paucity of scholarly attention to it. As far back as 1989, Ewert recognised that in regard to outdoor adventure pursuits, "the systematic development and inquiry into applicable models and theories has had a relatively short history" (1989, p. 84). Since this time there has been little research conducted to explain the importance and role of risk in adventure tourism. This study makes a considerable contribution to this area by seeking to understand the role of risk in the adventure tourism experience. This study will find out how the desire to experience risk, as a reason for choosing to engage in an adventure tourism activity, can best be managed by commercial operators.

Employing this marketing dominated approach, this chapter will clearly define the key terms and outline the specific aims of the study. The second chapter will reveal what is currently known about risk in adventure tourism by conducting a literature review of the topic encompassing the disciplines of marketing, recreation, and to a lesser extent, psychology. The conceptual framework and hypothesis development will then be outlined in Chapter 3, followed by a description of the research methodology to be used in the study (in Chapter 4). Chapter 5 will provide a descriptive analysis of the findings, Chapter 6 and 7 will test the previously stated hypotheses, and the final chapter will be devoted to a conclusive discussion of the findings.

1.1 Adventure Tourism: A Definition

Adventure tourism has been defined by Weiler and Hall (1992, p. 91) as being:

> "A broad spectrum of outdoor tourist activities, often commercialised and involving interaction with the natural environment away from the participant's home range and containing elements of risk; in which the outcome is influenced by the participant, setting, and careful management of the experience."

In regard to this definition, and to outline the general framework under which this study takes place, the focus will be on adventure tourism that is not just 'often commercialised', but 'intrinsically commercialised'. In other words, this study examines adventure tourism encounters where a customer has paid money to a service provider of a particular adventure experience (such as rock climbing) for their specialized skills and knowledge, and "as 'experts' the outfitters of these operations take care of all the details, to the point that the tourist just has to turn up on the day" (Palmer, 1997, p.330). This is different to people venturing into an outdoor setting, taking responsibility for, and self-organising, their own adventure experience. While the two concepts are closely related and discussed throughout this study, the focus of this thesis is on the commercialised experience. Much academic focus has been given to adventurous activities conducted as a sporting or recreational pastime (see Bayes, 1998; Celsi, Rose and Leigh, 1993; Cheron and Ritchie, 1982; Csikszentmihalyi, 1977; Ewert, 1985; Ewert, 1989; Ewert and

Hollenhorst, 1989; Ewert, 1994; Hall, 1992; Hull and Michael, 1995; Lyng, 1990; McIntyre, 1992; McIntyre, 1994; Priest, 1992; Priest and Carpenter, 1993; Robinson, 1992; Schreyer, Lime, and Williams, 1984; Shoham and Rose, 1998; and Watson, Roggenbuck and Williams, 1991). Therefore, "considering the confusion and overlap in the boundaries of leisure, recreation, and tourism, care must be taken in adopting any definition" (Sung, Morrison and O'Leary, 1996, p. 5).

Sung, Morrison and O'Leary (1996), suggest that six major components: activity, motivation, risk, performance, experience and environment are the key variables in defining adventure tourism. The study conducted by Sung, Morrison and O'Leary surveyed 178 exhibitors and observers at the 1996 International Adventure and Outdoor Show held at the Rosemont Convention Center, Illinois. These service providers were asked to rate their levels of support for different definitions of adventure tourism and the level of importance in regard to the six major components. Of the six major components, all were "clearly found to be highly important characteristics of adventure tourism" (Sung, Morrison and O'Leary, 1996, p.12) with activity being the most important, followed by experience, environment, motivation, risk and performance. The authors suggest that adventure travel is primarily associated with activities where the purpose of the trip is to be engaged in experiences through participation rather than in sightseeing at traditional tourist attractions. As a consequence, as eight proposed definitions received no convincing popularity among the respondents, Sung suggested that they "might have seemed too theoretical for the surveyed population to interpret" (Sung, Morrison and O'Leary, 1996, p.8). Having considered these findings, Sung, Morrison and O'Leary suggested the following revised definition of adventure travel:

> A trip or travel with the specific purpose of activity participation to explore a new experience, often involving perceived risk or controlled danger associated with personal challenges, in a natural environment or exotic outdoor setting (Sung, Morrison and O'Leary, 1996, p.12).

It can be seen that this definition regards the involvement of "perceived risk or controlled danger" as something that is "often" associated with adventure travel. This suggests that

some adventure activities may have no level of perceived risk. This line of thinking is flawed. A principal argument of this study is that with adventure activities, if the operator were to remove or greatly diminish the level of perceived risk, then the experience could no longer be regarded as adventure tourism and as a result, tourist demand for that 'adventure' activity would diminish. People don't go bicycle-touring primarily to experience the view because "in adventure travel it is the activity which attracts the tourist" (Hall, 1992, p. 144) and it is in the activity that the risk resides.

Therefore, the following working definition, adapted from the Weiler and Hall (1992) and the Sung, Morrison and O'Leary (1996) definitions, is proposed for this study:

> Adventure tourism represents a broad spectrum of risk orientated outdoor tourist activities that are delivered on a commercial basis where profit is the key motive for providers, and are characterised by the deliberate seeking and/or acceptance of risk by the tourist, and in which the outcome is influenced by the participant, the setting, and the careful management of the experience.

Table 1.1 lists a number of activities which Weiler and Hall (1992, p. 144) and Sung, Morrison and O'Leary (1996, p. 3) describe as being examples of adventure tourism. The hybrid nature of an adventure tourism experience being conducted on either a commercialised or non-commercialised basis is demonstrated when one considers activities such as fishing, bushwalking or bicycle touring. These activities are easily and quite often conducted as a self-organised recreational trip rather than as a professionally guided trip.

Table 1.1: Examples of Adventure Tourism Activities. Source: Hall and Weiler, 1992; Sung, Morrison and O'Leary, 1996.

Arctic Trips	Bicycle-touring
Backpacking (bushwalking, tramping)	Four Wheel Drive trips
Bungy jumping	Motorcycling
Camping	Snow shoeing
Cross-country skiing	Fishing
Hang-gliding	Hot-air ballooning
Horseback riding	Paragliding
Hunting	Mountain biking
Jungle exploring	Walking tours
Mountaineering	Orienteering
Nature Trips	Skiing
Rappelling	River kayaking
Rock-climbing	Rogaining
Safaris	Soaring
Sailing	SCUBA diving
Sea kayaking	Sky-diving
Snorkelling	Survival and wilderness training
Trekking	Bird watching
Whitewater canoeing	Spelunking
Whitewater rafting	Windsurfing
Dog Sledding	

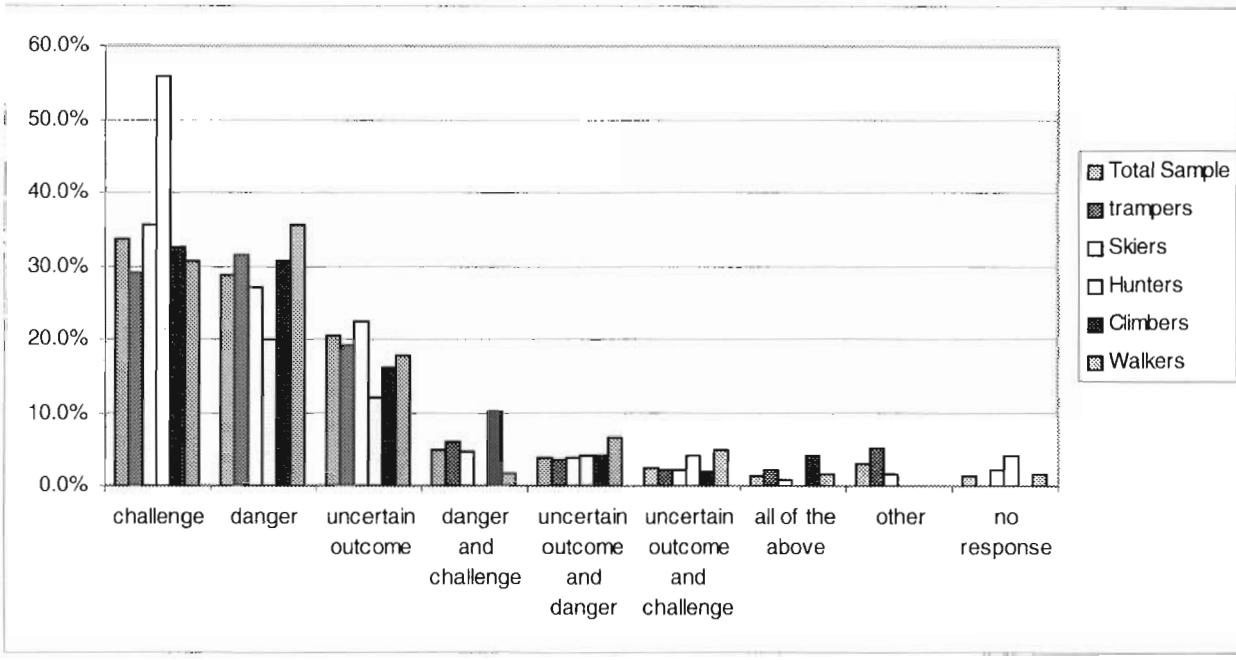
It is apparent that the acceptance or "deliberate seeking of risk and danger by participants in outdoor activities" (Weiler and Hall, 1992, p. 143) makes adventure tourism stand apart from other forms of tourism. "Feelings of competence and enhanced sensations as well as feelings of anxiety or fear – it is this duality of emotions that make risk recreation fundamentally different from other recreation activities" (Robinson, 1992, p. 53). It is difficult to imagine this particular blend of emotions being present in other forms of tourism, and if removed from the adventure tourism experience, it would change to something more mundane. For example, if an operator were to offer a whitewater rafting experience where the rapids were extremely small and intermittent, the guide to client ratio was such that the client did not have to do any paddling at all, and the raft was so big that the risk of capsize was negligible, then it would not be a very exciting, or indeed 'risky', experience. Ewert (1989), distinguishes many activities commonly associated with outdoor recreation from those in which there is a deliberate seeking of risk and

uncertainty of outcome as *adventure*. Diminishing the risk below acceptable levels, and thereby diminishing the level of adventure, will change the experience. If risk is not apparent in the activity, then the activity becomes a type of tourism activity other than adventure tourism. The importance of risk in adventure travel activities is also supported by Sung Morrison and O'Leary, (1996, p. 4) when they predict that "the absence of risk may result in a decrease in satisfaction as well as a decrease in the desire to participate".

Risk has been defined as "the potential to lose something valuable" (Priest and Carpenter, 1993, p. 52). Robinson, (1992, B, p. 13) speaks of the "unavoidable negative consequences" in regard to activities such as mountaineering and rock climbing. He defines risk as the potential to lose something of value which may take the form of a physical, social esteem, or self esteem injury. Ewert (1989) says that within an outdoor adventure experience, this risk can be physical, emotional or material, but is usually associated with the possibility of being injured or even killed. Cheron and Ritchie (1982) view risk as a multidimensional psychological phenomenon which influences individual perceptions and decision processes.

Uncertain outcomes, as well as challenge and danger were identified as the most important meanings associated with the term "risk" by a sample made up of 309 trampers, 442 skiers, 25 hunters, 49 climbers and 62 day walkers as reported in a study conducted by Johnston (1992). Figure 2.1 shows that the concept of challenge was most significant for the recreationists surveyed. Danger and uncertainty of the outcome were also reported as being significant to the meaning of risk.

Figure 1.1 Meanings of Risk Selected by Recreationalists. Source: Johnston (1992)



For the purposes of this study, the distinction between "real risk" and "perceived risk" needs to be discussed. The term "real risk" is defined as "that which actually exposes the participant to the possibility, even probability, of being hurt or having a close call" (Ewert, 1989, p. 4). Although real risks are present in many adventure tourism scenarios, such as the danger of a drowning to occur on a whitewater rafting trip, these risks are sought to be managed by the service provider in such a way that the chances of them occurring are minimized. Perceived risk refers to the "illusion of danger" (Ewert, 1989, p. 4). This is the perception of risk from the customer's perspective and is paramount to understanding within a marketing framework. Maser and Weiermair (1998) say that perceived risk is characterised as a function of uncertainty and its consequences, with some consequences being more desirable to the tourist. Balancing "safety, the abilities and skills of the participants, and real and perceived risk" (Hall, 1992, p. 145) is the role of the adventure tour operator.

In the case of an adventure tourism activity such as bungy jumping, the real risks include factors like the bungy cord breaking, the wind blowing the tourist off-line and into the tower, or the jump-master miscalculating the jump, by letting too much rope out and having the jumper travel further on the downward trajectory than was intended. These

are all risks that can be anticipated strategically. For example, old bungy cords can be destroyed and replaced with new ones after a certain number of jumps, weather conditions can be constantly monitored and taken into account, and jumpers can be accurately weighed, their weight written on their hand with a permanent marker pen and the calculation of how much rope to be let out double checked by the assistant jump master.

For bungy jumping, these real risks occur within a very short time frame, being the few minutes it takes to prepare and dispatch a person for the jump. Contrast this to another adventure tourism activity like whitewater rafting. The amount of time that the client is under the duty of care by the tour operator may extend for periods ranging from a few hours, to days, and in some cases, weeks. Because of the ever-changing natural environment in which the activity takes place, "adventure tourism operators must be aware of specific hazards in the setting and how changes in conditions can exacerbate these hazards" (Morgan and Fluker, 2003, p. 52). It is suggested that the real risks in an activity like whitewater rafting include factors such as floods, submerged hazards such as branches, foot entrapments, hypothermia and drowning.

1.2 Three Key Variables

The working definition for this study borrows from the Weiler and Hall (1992) definition of adventure tourism when it suggests that there are three variables that influence the outcome of the experience. These key variables are (1) the participant, (2) the setting, and (3) the careful management of the experience. These will now be discussed.

1.2.1 The setting

The working definition used in this study states that the setting for an adventure tourism activity is the outdoors. By conducting tourism operations in the natural environment, the issue of ever changing conditions needs to be considered. Rivers may flood, winds may blow in from an unfavourable direction or rain may make conditions slippery and dangerous. These types of hazards must be considered in managing the adventure tourism experience. Adventure tourism guides must be aware, or "mindful" (Morgan and

Fluker, 2003, p. 52) of the various hazards which may present themselves and be careful not to categorise them based solely on their past experience.

A river setting used for whitewater rafting, when in flood is characterized by the following:

a. Normal eddies and sections of calm water that follow rapids are often washed out, hence a paddler thrown into the water has difficulty in finding a rest area, and
b. Debris is often swept downstream, or is trapped under the water to create a snag and danger to the paddler (West, 1996, p. 12).

The Mitta Mitta River, situated in the high country of Victoria, Australia, was in flood on the 30th of September 1996 when David Grace, a Captain in the Australian Army Reserve, drowned during an Army rafting exercise. The coroner reported that the Army needed to identify and redress any deficiencies in their Risk Management training program (West, 1996, p. 23). While this is not a commercial adventure tourism experience, it is an example of death occurring as the result of changing natural environmental conditions.

A relatively high river level was identified by the Maritime Safety Authority of New Zealand, as a contributing factor in the events that lead to the near drowning of a passenger of a commercial whitewater rafting trip, on the Shotover River, Queenstown, New Zealand (1995). Conversely, one month earlier, the same authority identified a low river level as being a contributing factor for the death of Brenda Choos, a passenger on a commercial whitewater rafting trip on the same river (the Shotover). This shows that the setting in which the adventure tourism activity is being conducted, can indeed be dangerous in real terms.

1.2.2 The participant

Because perceived risk is important in this study, it is critical to consider the "participant", by whom the perception of risk takes place. Through understanding how a participant behaves before and after the adventure experience, especially in relation to their desire to experience risk, the adventure tour operator will be better able to "carefully manage the experience" (the third key variable) in a way that gives them a better chance of achieving positive outcomes, such as repeat visitation, and favourable recommendations through enhanced customer satisfaction.

Another factor to be considered when discussing participants are their individual dissimilarities. Cultural differences associated with adventure tourists of varying backgrounds may indeed affect the outcome of the experience. There is a general belief, for example, that Japanese tourists are more risk averse when selecting tourism destinations. However, there is no study examining the issue in regard to adventure tourism. Given that this issue (cultural differences in adventure tourism) is a potential study in itself, the focus has been limited to one cultural group – English speaking tourists, defined by the language spoken at home. For this reason, this study considers the participant initially as an Australian domestic tourist, and then secondly, as an international inbound tourist who has English as their first language. By doing this, ambiguities associated with interpretation of survey instruments, and other difficulties involved with surveying people with different language backgrounds are removed.

1.2.3 The careful management of the experience

Murphy and Enis (1986, p. 24) offer the 1985 American Marketing Association definition of marketing as being the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organisational objectives. It is suggested that this process describes how the "careful management of the experience" may be operationalised in a strategic sense.

Ewert (1989, p. 11) discusses the way in which resource managers must effectively meet the needs of the outdoor recreation/adventure seeker. Kotler (1991) proposes that the key to achieving organisational objectives "consists of determining the needs and wants of target markets and delivering the desired satisfaction more effectively and efficiently than the competition" (1991, p.16).

So, who are the competitors of adventure tourism? In order to answer this question, a definition of tourism is required. When viewed as an industry, tourism may be defined as "the aggregate of all businesses that directly provide goods or services to facilitate business, pleasure, and leisure activities away from the home environment" (Smith, 1988, p.183). Adventure tourism may then be regarded as one segment of the larger tourism industry. One purpose of this study is to suggest strategies to increase this market share.

Hunt and Morgan (1995), suggest that when a firm has a resource which is rare among its competitors, and is perceived by some market segments to have superior value, then this can translate into a position of competitive advantage. This describes the comparative advantage theory of competition. An example of such a resource would be information resulting from consumer intelligence, suggesting that participants view the risk associated with adventure tourism experiences as having value. This trait is one that is difficult for other segments of the tourism industry to compete against "through acquisition, imitation, substitution or major innovation" (Hunt and Morgan, 1995 p.8). For example, if a provider of a cultural tourism product such as attending an opera (Pearce, Morrison and Rutledge, 1998, p. 68) were to increase the level of perceived risk experienced by patrons, then the likely outcome would be a decline in patronage.

The extent to which the market attaches significance to this trait of risk will determine the amount of comparative advantage available to the adventure tourism segment of the tourism industry. At the macro level, adventure tourism operators compete for a consumer's discretionary income with other sectors of the economy such as banks or retailers. Should the consumer, put their spare $200 in their savings account, buy a new television set, or pay for a commercial whitewater rafting experience?

At a micro level, adventure tourism operators compete with other segments of the immediate tourism industry such as cultural tourism, event tourism or conventional mass tourism. While individual adventure tourism operators will compete for market share, if only because of the "radical heterogeneity of firms" (Hunt and Morgan, 1995, p. 2), this study aims at developing theory on which the adventure tourism industry in general can be based. The reasons for this is so that adventure tourism, as an industry segment, may be sustainable, rather than purely one individual adventure tourism firm within the segment.

To summarise, the demand for adventure tourism is growing. This growth has not been reflected by a similar growth in research, especially in regard to how the unique characteristic of adventure tourism (the element of risk) plays a role in the motivation, satisfaction and post event intentions of an adventure experience. By understanding these points, providers of adventure tourism experiences will be better able to offer products in ways that best meet the needs of Australian domestic and English (English as a first language) speaking inbound markets.

1.3 Aims of the Study

The five specific aims of this study are:

1. To determine the importance of experiencing risk in choosing to participate in different adventure tourism activities.
2. To understand the motivations of adventure tourists to engage in an adventure tourism activity.
3. To understand the levels of satisfaction that adventure tourists have in various adventure tourism activities.
4. To understand the behavioural intentions of adventure tourists to engage in future adventure tourism activities.
5. To develop specific marketing strategies for Australian domestic adventure tourists and inbound adventure tourists who have English as a first language.

This chapter has introduced the research project and defined the key terms. The next chapter will examine the current literature related to the problem statement, and five specific aims. Chapter 3 describes the conceptual framework and hypothesis development to test the problem statement in the light of the literature review, and Chapter 4 discusses the research methodology used to gather sample data to test the hypotheses derived from the conceptual framework. Chapter 5 describes and analyses the data. Chapter 6 tests the hypotheses stated in Chapter 3, and Chapter 7 draws together the findings from the analysis and discusses the specific marketing strategies developed from the analysis and model testing, in relation to the specific problem outlined in Chapters 1 and 2.

2 Chapter 2: Literature Review

This chapter reviews the relevant literature under the headings: disciplinary and theoretical frameworks, risk, motivation, satisfaction, post event behaviour and marketing.

2.1 Disciplinary and Theoretical Frameworks

As the problem in this study is to understand the role that risk should play in marketing adventure tourism, the main academic discipline to be used is that of marketing. Within the context of marketing services, of which tourism is one (Sheppard, Grove, Norman, McLellan and McGuire, 1998), risk has been discussed by many researchers (Kaplan, 1974, Roehl and Fesenmaier, 1992, Tsaur, Tzeng and Wang, 1997, Bettman, 1973, Murray and Schlacter, 1990, Tellis and Gaeth, 1990, Murphy and Enis, 1986, Maser and Weiermair, 1998, Celsi, Rose and Leigh, 1993, Shoham and Rose, 1998). While there appears to be some debate as to the scientific difference between a product and a service, and the marketing implications of both (Murray and Schlacter, 1990), this study will assert that adventure tourism is in fact a service being provided to customers. This assumption is based upon adventure tourism meeting the general characteristics of a service, which include intangibility, simultaneity of production and consumption, inseparability, and non-standardisation (Murray and Schlacter, 1990).

The concept of risk has also received a lot of research attention within the discipline of leisure and recreation (Priest, 1992, Robinson, 1992, McIntyre, 1992, Ewert, 1985, Ewert, 1989, Ewert, 1994, Iso-Ahola, Verde and Graefe, 1988, Jones and Ellis, 1996). The experiences associated with leisure or recreation scenarios are not necessarily provided on a commercial basis, however this study suggests that many of the concepts overlap the field of commercial tourism.

The psychological literature has also explored the concept of risk (Csikszentmihalyi, 1977, Short, 1984, Lyng, 1990, Leigh, 1999, Rutter, Quine and Albery, 1998, Szybillo and Jacoby, 1974). In order to address the research question posed in this study, a multi-

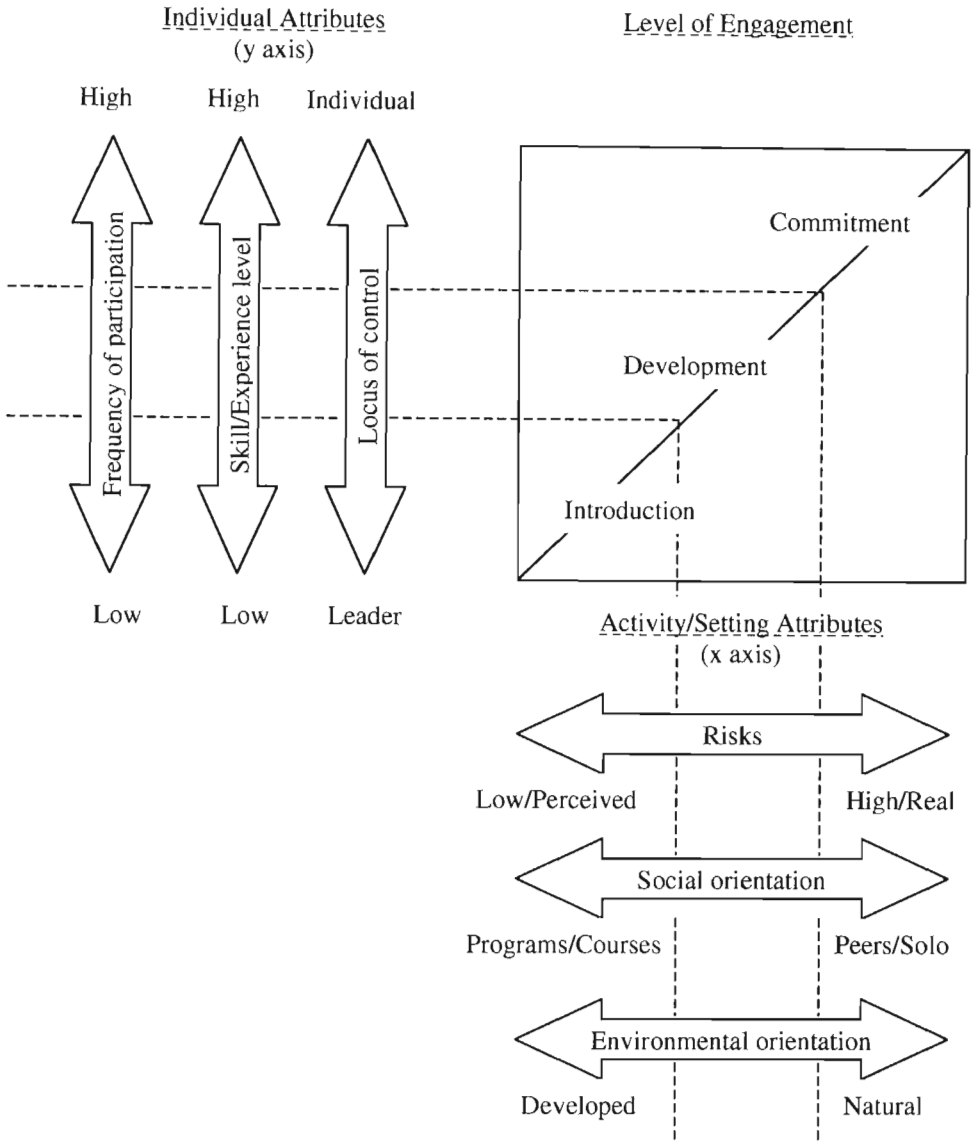
disciplinary approach (marketing, recreation and psychology) will be used. However, these disciplines will not be addressed in isolation, rather, the mutuality of each will be recognised and used to enhance the understanding of the complexities involved in adventure tourism. In the next section, this literature review discusses the theoretical constructs of the adventure experience, and then the concepts of risk, motivation and satisfaction.

2.1.1 The Model of Adventure Recreation

Managers want to provide "high quality recreation opportunities and participants want to have high quality recreation opportunities" (Ewert and Hollenhorst, 1989 p. 124). It is upon this premise that Ewert and Hollenhorst (1989) developed the Model of Adventure Recreation, which attempts to describe participant characteristics and patterns of use in adventure recreation. The importance of being able to understand the customer, in order to meet their needs in order to provide these high quality experiences, is a concept not limited to recreational situations as "to appeal to changing customers requires that travel organizations and destinations clearly understand and appreciate the needs of their customers" (Forbes and Forbes, 1993, p. 128).

The accuracy of the model, shown in Figure 2.1, was tested by Ewert and Hollenhorst by using a sample of 106 students (69% male with a mean age of 20 years) enrolled in a 'Program of Outdoor Pursuits' course. The subjects were asked to respond to questions relating to their experience and skill level, frequency of participation, preferred social and physical settings, preferred risk levels, and motivations for adventure participation. By grouping the respondents based on their experience level (either the introductory, development or committed group), Ewert and Hollenhorst were able to use correlation tests of significance, discriminant analysis and oneway ANOVA procedures to test the accuracy of the model in describing the type of adventure experience sought by each group of respondents. It was found that the model was effective in predicting all but the motivational variable, with only two of the 18 items indicating relative agreement between model predictions and the data.

Figure 2.1 A Conceptual Model of Adventure Recreation (Source: Ewert and Hollenhorst, 1989, p. 126)



It can be seen in Figure 2.1 that the Model of Adventure Recreation describes the adventure experience in terms of the individual attributes of the participant, the level of engagement, and the activity or setting attributes. Dependant upon the participants individual attributes (frequency of participation either high or low, skill and experience level either high or low, and the locus of control being with either a leader or the participant) and the attributes of the activity or setting (the risks being on one hand low or perceived, and the other hand high or real, the social orientation being one of either a

program or course, or among peers or solo, and the environmental orientation being either developed or natural) a pattern of adventure use in adventure recreation may be identified.

The usefulness of this model in an adventure tourism setting is limited due to the fact that the model was designed for a "variety of self-initiated activities" (Ewert and Hollenhorst, 1989 p. 125) where the participant is in more control of the situation than in a commercial tourism scenario. Another fact that limits this model is that the sample used to test the model was limited to students, rather than randomly selected, commercial tourists.

2.1.2 Robinson's Risk Recreation Model

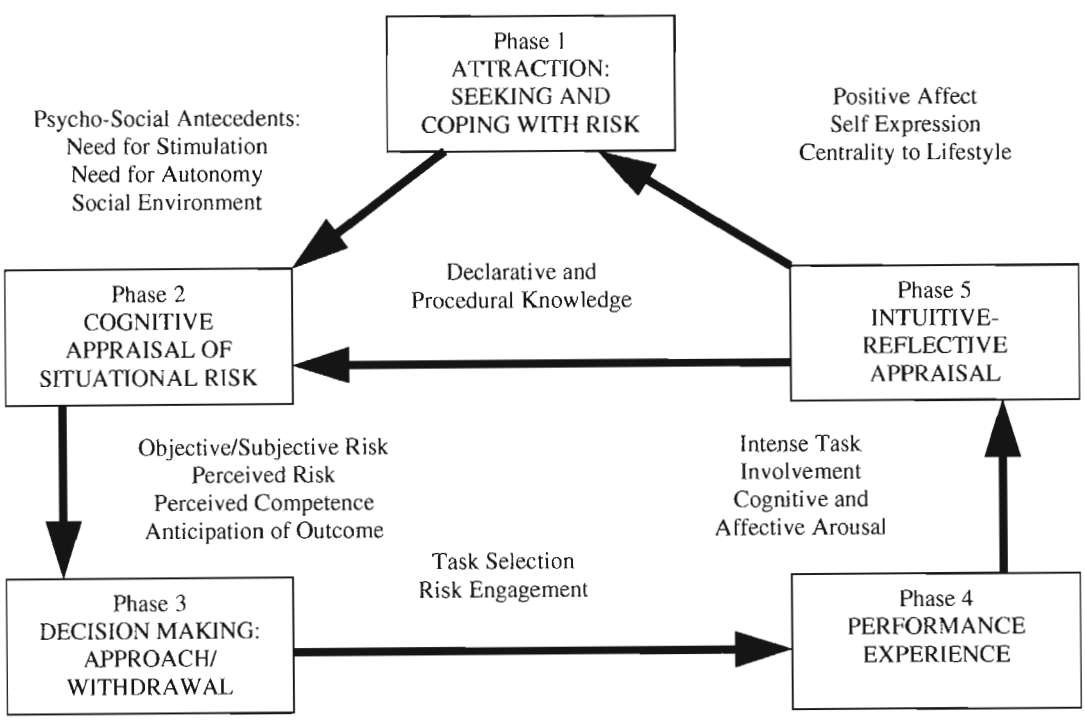
Another conceptual framework worthy of consideration in the adventure experience is the Risk Recreation Model. Robinson (1992) provides an eloquent explanation of how risk is associated with an adventure activity. Figure 2.2 describes Robinson's "clearly theoretical" Risk Recreation Model. Based primarily on theory from recreation, psychology and marketing, Robinson proposes a five phase transactional cycle through which participants of a risk *recreation* pass. The overlapping nature of recreation and tourism has already been mentioned in this study. Complications in using this model to describe adventure tourism, which is characterized by its commercial disposition, are similar to the Model of Adventure Recreation. That is that the model has been designed for use in a recreational rather than a commercial tourism situation. The value in using this model is that it provides a reasonable framework in which relevant concepts, such as perceived risk, motivation and reflective appraisal, can be discussed.

The following model described by Robinson (1992) is an example of a shared concept between adventure tourism and adventure recreation. Robinson explains the difference between risk recreation and "traditional" types of recreation "by posing elements of real or perceived physical danger within the context of outcome uncertainty" (Ewert and Hollenhorst 1989, as quoted by Robinson, 1992, p.53). This focus on physical risk again

supports the proposition that this is the apparent uniqueness of adventure tourism, compared to other types of tourism experiences.

The five phases of the Risk Recreation Model as identified by Robinson are "(a) the dominant psycho-social antecedents which underlie attraction to risk recreation activities, (b) the perceptual process involved in determining situational risk, (c) the decision-making process involved in determining risk engagement, (d) the cognitive and affective processes which delimit "peak" risk recreation experience, and (e) the post-performance appraisal processes which influence enduring risk recreation involvement" (Robinson, 1992, p.51). These stages can be seen in Figure 2.2.

Figure 2.2 A Descriptive Model of Enduring Risk Recreation Involvement (Robinson, 1992, p.54)



2.1.3 The Commercial Adventure Tourism Operating Environment Model

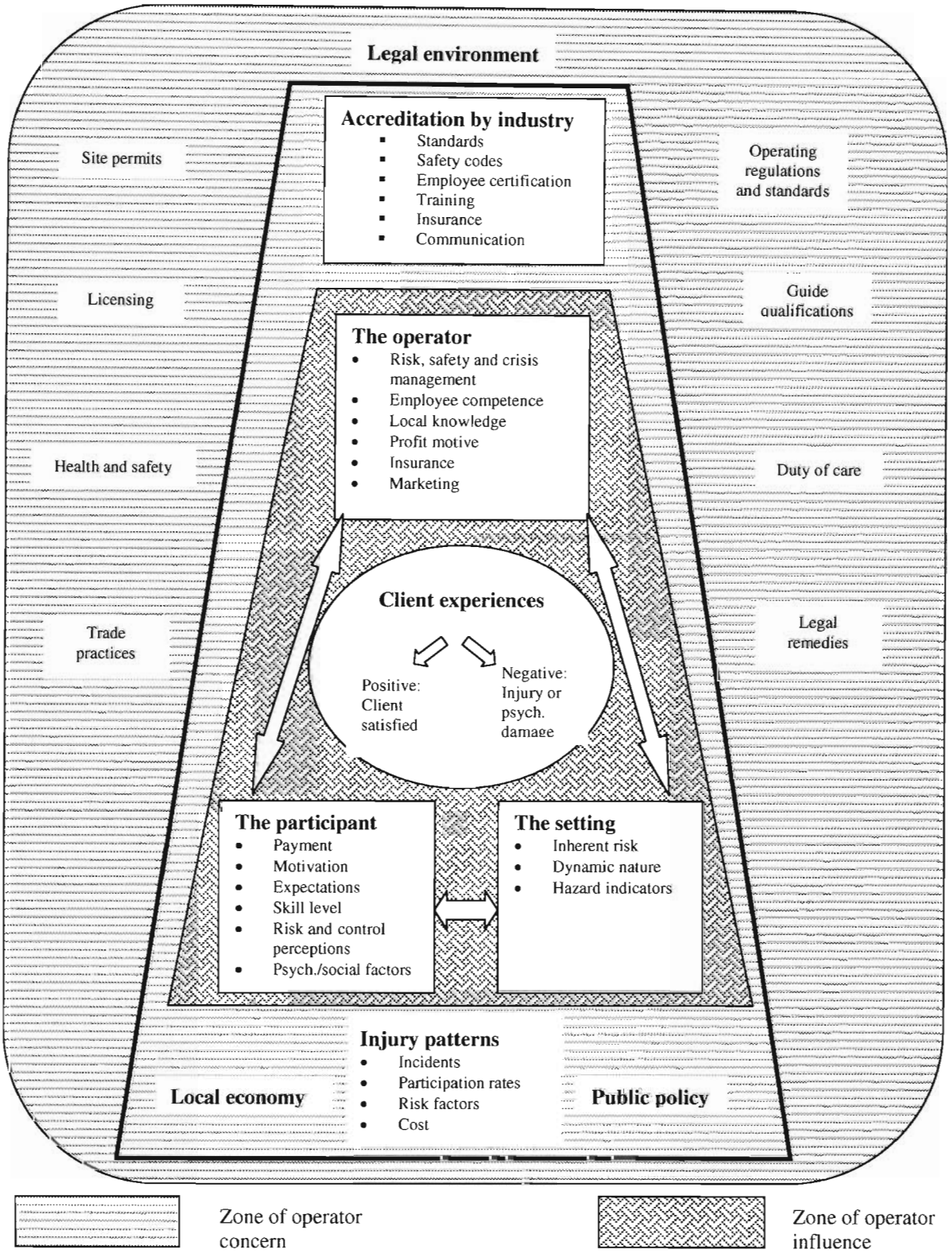
Yet another theoretical framework designed to explain an aspect of the adventure experience is the Commercial Adventure Tourism Operating Environment Model

(CATOEM), which was developed by Morgan and Fluker (2003) to show the risk management environment of the Australian adventure tourism industry. This was done by conducting an extensive literature review of the subject which then suggested a model based on the work conducted by Covey (1990), which looked at circles of influence and concern. It can be seen that there are two distinct areas within the model. The outer area denotes the zone of operator concern and represents those factors of the adventure tourism environment in which the adventure tourism operator must conduct their business, but which they have little or no control over. Examples of these factors include the legal environment, the local economy and public policy.

The zone of operator influence is indicated by the thatched background in the central part of the model. This represents the factors that the adventure tourism operator is able to have some bearing on and include the operator themselves, the participant, and the setting. These three variables, which are reflected in the working definition of adventure tourism used in this study, have a direct affect upon client experiences. However, the scope of the model "does not permit a full evaluation of all aspects (e.g. marketing)" (Morgan and Fluker, 2003, p. 54), and so is not fully representing the thrust of this study. The primary contribution of this model is in the way that it clearly describes areas in which the adventure tour operator has a degree of influence over, including marketing. This model is also more related to the current study given the focus on the commercial operator.

The next part of this literature review is more directly based around the aims stated in Chapter 1. The first aim is to determine the importance of risk in choosing to participate in different adventure tourism activities, therefore the first focus will be on "risk". The second aim is to understand the motivations of adventure tourists to engage in an adventure tourism activity, and the second focus of this literature review is "motivation". "Satisfaction" is the third focus and central theme of the third aim. "Future behavioural intentions" is the fourth focus, which is in line with the fourth aim, and finally "marketing" is the fifth focus and central theme in the fifth aim.

Figure 2.3 Commercial Adventure Tourism Operating Environment Model (Source: Morgan and Fluker, 2003, p. 56)



2.2 Risk

Risk is directly related to the first aim of this study, which is to determine the importance of risk in choosing to participate in different adventure tourism activities.

Jones and Ellis (1996, p. 278) note that "literatures of the insurance industry and manufacturing abound with articles on the analysis and minimisation of risk", but that these disciplines address only objective, quantifiable risk. The authors propose that perceived risk has an emotional component that transcends cognition by suggesting that objective danger counts for less than perceived danger. Jones and Ellis (1996, p. 278) offer the following definition, "perceived risk is an emotional and cognitive response elicited by exposure to a perceived probability of loss of some magnitude". According to Walker, Burnham and Borland (1994, p. 755), a cognition is defined as a broad term used to refer to a constellation of processes by which individuals acquire and make use of knowledge. An emotion, according to Izard (1991, p.14) "is experienced as a feeling that motivates, organises, and guides perception, thought, and action".

2.2.1 Perceiving Risk

The way in which people perceive risk is important in that different consumers may have varying perceptions of the same service being offered. Greenberg et al. (1997) define perception as the process through which we select, organise, and interpret information gathered by our senses in order to understand the world around us. The factors that influence an individual's perceptions of risk include their "experience in the situation, personality, age, gender and culture" (Morgan, Moore and Mansell, 1997, pp. 2). The cognitive appraisal of situational risk element of the Risk Recreation Model, according to Robinson (1992), refers to how individuals perceive situational risk relative to their perceived competencies to deal with that risk. Once again, because of the mitigated sense of responsibility associated with adventure tourism, the appropriateness of this model is problematic. However, it does help to confirm that perceptions of individual adventure tourism experiences are based on the subjective reality created in the minds of existing

and potential clients, are affected by an individual's experience and demographic disposition, and are prone to different interpretations.

For those clients who have no prior first hand experience of the activity about to be undertaken, the formation of their perceptions may be based upon information gathered from brochures, television, a friends recommendation or a myriad of other sources. For those participants who do have prior experience, their perceptions may be based on all the aforementioned sources, as well as their own personal experiences. Some of their perceptions of the risks involved may be quite real, while others may be less likely. Table 2.1 shows the sources of information used for international nature-based visitors to Australia during the March quarter of 1996. It can be seen that for this group, travel agents and booking agencies were the main sources of information. It is unfortunate that the variable "previous experience" was not included in this study by Blamey and Hatch as there is evidence to suggest that perceived risk is diminished as a person becomes more familiar with the concept at which the perception is targeted (Murray and Schlater, 1990, Pearce and Caltabiano, 1983).

Table 2.1 Information Sources Used to Find Out About Nature-Based Tours in Australian by International Visitors During the March Quarter of 1996. Source: Balmey and Hatch, 1996.

Information Source	Number of visitors	Share of visitors %
Newspaper/magazine articles	3,000	4
Brochure at a hotel/motel or backpackers accommodation	15,200	22
Newspaper/magazine advertisement	2,100	3
Travel guide or book	14,200	20
Travel agent/Booking agency	27,900	40
Radio/TV	1,700	2
Word of mouth	12,300	18
Clubs/societies	200	*
Total visitors undertaking an organised tour	70,300	109

Note:
- * denotes less than 1 percent
- Totals do not add up to 100 as visitors were able to give multiple responses

Bettman (1973) offers two types of risk, which may help to explain the differences between participants with and without prior experience perceiving risk. The first is "inherent risk" which is defined as the latent risk that a product class holds for a consumer. For example, ballooning is often at the mercy of prevailing weather conditions, and this may be considered an inherent risk.

The other type of risk Bettman discusses is "handled risk". "Handled risk is the amount of conflict the product class is able to arouse when a buyer chooses a brand from a product class in their usual buying situation" (Bettman, 1973, p. 184). To illustrate, an adventure tourist may indeed perceive ballooning to have a high degree of inherent risk, but due to being familiar with and confident in travelling with a particular ballooning company through positive past experiences, the amount of "handled risk" could be low. It is this "handled risk" that existing and potential customers have, that operators of adventure tourism should be attempting to decrease. Inherent risk may well be something that adventure tourists seek.

Rutter, Quine and Albery (1998), describe the concept of "unrealistic optimism" when considering a person's perception of risk. This is based on the idea that people tend to have the popular belief of being invulnerable and that "most members of a group will say that they are less likely than the average to suffer the bad things in life and more likely than the average to experience the good things" (Rutter et al., 1998, p. 693). This unreal optimism biases people's perceptions of risk and is said to stem from a cognitive appraisal of the situation. This arises when a person believes that the more control they have in a negative event, the more likely they are to perceive their own probability of injury as being less than average.

The Risk Recreation Model suggests that when a person applies cognitive appraisal to a risk situation, they must deal with two distinct dimensions of task uncertainty. The first relates to outcome uncertainty and the second refers to the nature of the failure consequences. As perceived risk is a subjective reality, so is perceived competence. It follows then that the perception an individual has of their own personal abilities in dealing with a given adventure situation will lead to that person anticipating certain

outcomes. "Thus, in situations where perceived risk exceeds perceived competence, the individual anticipates a failed outcome, and the consequences associated with it" (Robinson, 1992, p.57).

Unrealistic optimism is examined as a predictor of behaviour in the study conducted by Rutter, Quine and Albery, (1998) when looking at the perceptions of risk reported from 722 motorcyclists. It was found that they did show evidence of unrealistic optimism when asked the question "How likely do you think you are to have a serious road accident needing hospital treatment in the next year, compared with other motorcyclists?". On a scale of –2 to +2 the mean answer was –0.81, producing a one-sample t value against 0 of $t = -25.2$; $p<.001$. The interesting finding in this study was whether this unrealistic optimism would predict subsequent behaviour. It was hypothesised that the greater the perception of risk, the greater the subsequent adoption of precautionary behaviours would be. This was not the case. In fact, it was found that for motorcyclists who reported low levels of perceived risk (unrealistic optimism), and even for those who had lost a friend or relative in an accident, their subsequent behaviours indicated precaution abandonment rather than precaution adoption. The study suggests that:

> "motorcyclists whose behaviour is already established in risky routines may well have a strongly positive value for risk, not safety, and that value may be shared. As time passes, they conform increasingly to the norm of risk as a favoured value, and the disproportionate increase in their risky behaviour is their way of expressing that norm (Rutter, Quine and Lyn, 1998).

When considering people about to engage in the activity of bungy jumping, Middleton, Harris and Surman (1996) also found that unrealistic optimism did occur. First time bungy jumpers (41 of whom were surveyed on arrival at the bungy site and 37 immediately prior to their jump) "perceived their own risk of injury to be less than the risk to the typical jumper at the site" (Middleton, Harris and Surman, 1996, p. 76). Given the temporal difference between the two subject groups (which was up to one hour), the

finding suggests that as the "moment of truth" nears, participants do not change their optimistic bias.

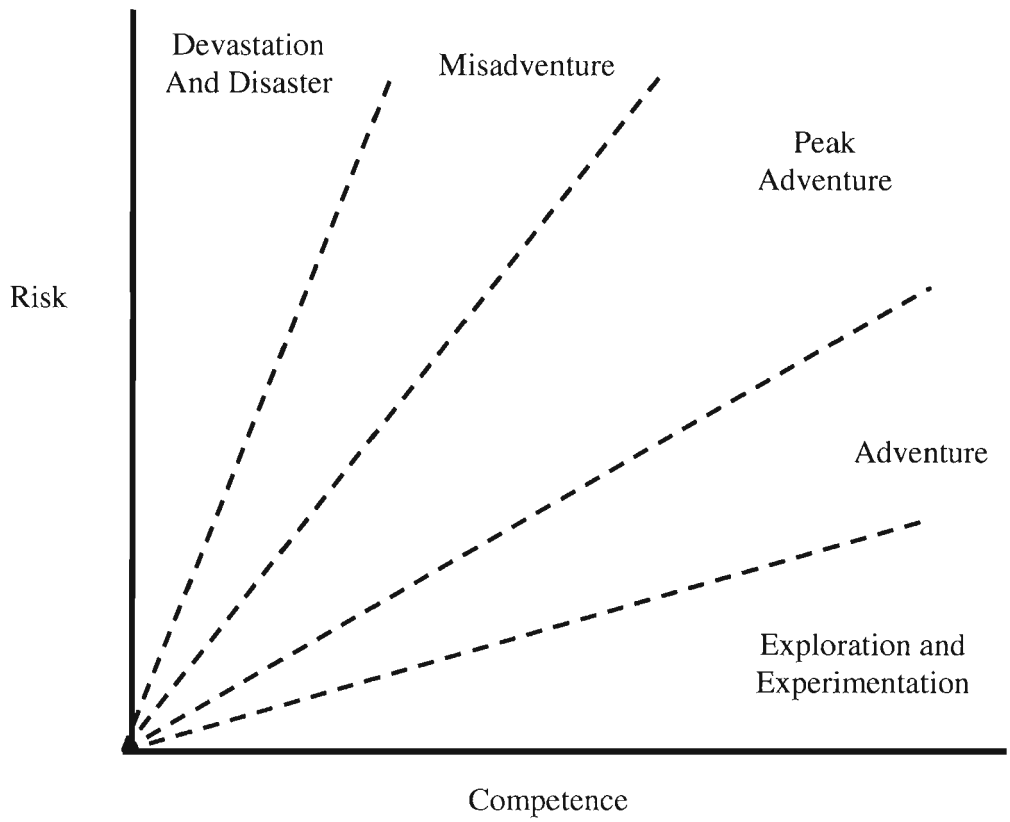
Robinson (1994) suggests that in situations where the dominant expectation is that of an acceptable level of control over event outcome, then the anticipated outcome will be that of success after which approach and engagement follow. In other words, a person must be able to judge their own levels of competency to deal with the inherent risks associated with a certain activity before participating. If they deem the balance between positive and negative outcomes to be in their favour, then they will choose to participate.

A person's perception of risk in adventure activities may also change as they become more experienced in the activity (Cheron and Ritchie, 1982, Priest, 1992, 1993, Robinson, 1992, McIntyre, 1992, Kuentzel and McDonald, 1992, Zuckerman, 1990). This change may occur because as the participant becomes more familiar with the activity, their level of competence increases. Priest (1992) defines competence as a combination of skill, knowledge, attitude, behaviour, confidence and experience, and he describes the relationship between risk and competence in an Adventure Experience Paradigm (AEP). This model as described in Figure 2.4. It proposes that as a person becomes more familiar with an activity and the level of competence increases, they seek risk experiences that match their updated sense of competence, to give them "optimal levels of arousal" (Priest, 1993, p. 52). Depending upon the participant's perceived levels of competence and risk, they may experience one of five levels of challenge, ranging from devastation and disaster to exploration and experimentation.

This model was strongly supported by Cheron and Ritchie (1982, p. 151) when they found that "the perceived risk associated with various leisure activities would diminish as respondent familiarity with, interest in, and preference for the activities increased". "In an adventure experience, this suggests participants will select levels of situational risk which suit their levels of personal competence" (Priest, 1992, p. 128). This may explain the proposition that some people choose not to make a repeat purchase after participating in an adventure experience. Perhaps these people need a greater sense of perceived risk commensurate with their new found level of perceived competence and this can only be

achieved in another environment. Indeed Priest (1992), suggests that as people become more familiar and experienced in recreational adventure experiences, they will be drawn to activities that are solo or small group, rather than program and course-based. Additionally, according to Priest (1992, p.137), these people will seek environments that are less developed and controlled to ones that are more natural and uncontrolled. It must be remembered that Priest was referring to "recreationists" (Priest, 1992, p.137) in his findings as opposed to commercial tourists.

Figure 2.4 The Adventure Experience Paradigm. Source: Priest, 1993.



Conversely, the outcome of a decreased level of challenge in an adventure tourism activity for those participants with prior experience, was not supported in a study by Morgan, 1998. This study considered 73 participants of two commercially operated water-based adventure tourism activities. The activities were whitewater rafting and sea-kayaking. It can be seen in Table 2.2 that about half the participants were engaged in the

activity for the first time, yet the challenge reported by those with prior experience is "reasonably evenly distributed across the two levels of challenge" (Morgan, 1998, p.10).

Table 2.2 Previous Experience in the activity by challenge level experienced. Source: Morgan, 1998.

	Rafting challenge levels			Sea-kayaking challenge levels		
	Low (n=22)	High (n=15)	Total (n=37)	Low (n=17)	High (n=19)	Total (n=36)
Those who have done the activity before	9	8	17	8	12	20
Percentage	41	53	46	47	63	56

In categorising the participants into either a low or high category of challenge, Morgan (1998) asked the participants, in the post-adventure phase of the experience, to "rate their perceptions of risk in the activity and their perceptions of competence to deal with that risk using separate eleven point scales" (Morgan, 1998, p.9).

Priest, 1992, suggests that the perceived risk and competence dimensions of an adventure experience can be divided into a number of bipolar adjective pairs. "Twelve pairs addressed the adventure dimension of risk (eg. Dangerous - safe or harmless - harmful) and the other twelve addressed competence (eg. Skill - unskilled or vulnerable – invincible)" (Priest, 1992, p. 133). A nominal method was used to allow respondents to indicate how they felt about each of the paired adjectives. Tables 2.3 and 2.4 show the items and resulting factor groups for each of the adventure dimensions.

Table 2.3 Confirmation of factor structure (oblique solution and varimax) rotation for the Dimensions of an Adventure Experience twelve point bipolar adjective pairs related to perceived risk (N=24). Source: Priest, 1992, p. 136.

Item	Fear of risk	Risk Eustress	Risk Distress	Communality
Potential harm	.887			.849
Exposure	.856			.813
Danger	.842			.827
Hazard	.538			.671
Excitement		.909		.849
Challenge		.896		.831
Stimulation		.749		.807
Tension		.653	.519	.810
Positivity (Neg.)		.475	.708	.662
Uncertainty			.754	.726
Threat			.682	.584
Difficulty			.486	.594
Eigenvalue	5.053	2.380	1.589	
Variance proportion	.421	.198	.132	Total = .751

Table 2.4 Confirmation of factor structure (oblique solution and varimax) rotation for the Dimensions of an Adventure Experience twelve point bipolar adjective pairs related to perceived competence (N=24). Source: Priest, 1992, p. 137.

Item	Abilities	Attitudes	Communality
Expertise	.970		.759
Skill	.932		.786
Mastery	.863		.842
Proficiency	.728		.680
Experience	.706		.668
Strength	.488	.388	.580
Capability	.476	.418	.603
Superiority	.443	.304	.425
Success		.922	.852
Confidence		.890	.810
Boldness		.816	.609
Invincibility		.657	.404
Eigenvalue	6.420	1.598	
Variance proportion	.535	.133	Total = .668

Therefore, the Adventure Experience Paradigm may be useful in a commercial adventure tourism scenario to determine the perceptions that the participants (both with and without

prior experience) have of risk and their own competencies to deal with risk. This perception will then lead to the participant developing an expectation, which is defined as "consumer-defined probabilities of the occurrence of positive or negative events if the consumer engages in some behaviour" (Oliver, 1981, p. 33). Robinson says that "the selection of a particular undertaking or task (e.g. a specific rock climb) will be influenced by an individuals' disposition and experience" (Robinson, 1992, p.57).

2.2.2 Types of risk

Table 2.5 outlines various forms of risk described in the literature. While many forms of risk have been considered in relation to financial or marketing situations, the study undertaken by Tsaur et al. (1997) looked at tourist risk in particular. The authors defined tourist risk as the possibility of various misfortunes that might befall a package tourist in the process of travelling, or at their destination. Tsaur et al. (1997) also describe the five categories of tourist risk as outlined by Moutinho (1987), which are functional risk, physical risk, financial risk, social risk and psychological risk. What becomes clear is that of the multiple dimensions of risk, some dimensions may be more relevant to include in particular studies than others.

Table 2.5 Risk Typologies

	Type of Risk	Author	Description
1	Financial Risk	Murphy and Enis (1986), Bontempo et al. (1997), Cheron and Ritchie (1982).	The possibility that the experience will not provide value for the money spent.
2	Social Risk	Murphy and Enis (1986), Cheron and Ritchie (1982),	The possibility that the experience will effect other people's opinions of the individual.
3	Psychological Risk	Murphy and Enis (1986), Cheron and Ritchie (1982).	The possibility that the experience will not reflect the individual's personality or self-image.
4	Physical Risk	Murphy and Enis (1986), Cheron and Ritchie (1982).	The possibility of physical danger, injury or sickness.
5	Functional Risk	Murphy and Enis (1986), Cheron and Ritchie (1982).	The possibility that the experience will be negatively affected by operational factors.
6	Ecological Risk	McDaniels et. al. (1995).	The possibility that harm will be caused to the natural environment.
7	Environmental Risk	McDaniels et al. (1995), Cheron and Ritchie (1982).	The possibility that harm will be caused to the natural or built surroundings.
8	Time Risk	Cheron and Ritchie (1982).	The possibility that the experience will take too long and waste time.
9	Situational Risk	Priest (1992).	The possibility that the particular setting in which the experience takes place provides a high level of uncertainty.
10	Satisfaction Risk	Cheron and Ritchie (1982).	The possibility that the experience will not provide personal satisfaction.
11	Real Risk	McIntyre (1992).	The actual amount of recorded negative outcomes.
12	Perceived Risk	Jones and Ellis, Tsaur, Tzeng and Wang (1997), Priest (1992).	An emotional and cognitive response elicited by exposure to a perceived probability of loss of some magnitude.
13	Tourist Risk	Tsaur, Tzeng and Wang (1997).	The possibility of various misfortunes which might befall a package tourist in the process of travelling or at their destination.

Cheron and Ritchie found that of the six types of risk (financial risk, performance risk, physical risk, psychological risk, social risk and time loss risk) used to measure the amount of overall perceived risk people had of twenty different leisure activities, "some components of perceived risk were more useful for discriminating among leisure activities than others" (Cheron and Ritchie, 1982, p. 143). After performing a principal component factor analysis on the data, it was found that two major dimensions existed. The first was the dimension of "Functional Risk" (including functional and physical risk components), that refers to the potential inability of the participant to perform an activity

well and the danger of physical injury. The second dimension was "Psychosocial Risk" (including financial, psychological, social, satisfaction and time risk) and pertains to fears involving failure to meet personal or social standards, as well as the feelings of frustration derived from an unsatisfactory experience and the associated waste of valuable leisure time. The small size of the convenience sample used in this particular study (n = 68) may account for the unusual finding of "handicrafts" being placed within the dimension of functional risk, along with snowmobiling and downhill skiing.

Roehl and Fesenmaier (1992) found differences in perceived risk within various groups of tourists. In their study, a group of 258 residents were asked to fill out a questionnaire designed to measure their risk attitudes towards "vacations in general and about their most recently visited destination". The three risk groups were identified as the Functional Risk Group, the Place Risk Group and the Risk Neutral Group.

The Functional Risk Group is characterised by the presence of young children and perceives more physical and equipment risk than the other two groups. The Place Risk Group perceives vacations in general and the destination of the last trip in particular to be fairly risky. These people have considerable experience with the destination and most participated in behaviour termed visiting friends and relatives – an apparently high perceived risk activity. The third category is the Risk Neutral Group. These people according to Roehl and Fesenmaier (1992), appear to view travel in general as well as their particular destination, as a relatively safe activity.

The interesting thing about the Risk Neutral Group is that they emphasised the benefit of experiencing adventure and excitement more so than the other two groups. They were also more likely to use travel agents and tourist information offices as information sources. The authors suggest that "since they seek adventure and excitement they may be able to frame uncertainty regarding their trip as part of the excitement of travel, rather than perceiving it as a problem to avoid" (Roehl and Fesenmaier, 1992, p. 18). Therefore, marketers of the adventure tourism product may need to consider identifying those groups of potential or existing clients who are either aware or unaware of the

potential consequences associated with various activities, and how this affects their decision to purchase.

What Roehl and Fesenmaier (1992) do suggest is that risk perceptions are situation-specific: "When an individual evaluates a situation he or she pays more attention to some risk dimensions than to others because particular risk dimensions are perceived to be important to the decision maker". For example, a person may be less concerned with the risk of looking foolish in front of his or her friends when singing a song (social risk), compared to sustaining physical injury as the result of bungy jumping (physical risk).

In order to address the central issue of this study, it is important to once again isolate that type of risk which is unique to adventure tourism compared with other forms of tourism so that this difference may be leveraged. Murray and Schlacter (1990) identify seven types of product risk that can be associated with a service encounter as being financial, performance, social, psychological, convenience, physical and overall loss. This study suggests that many of these types of risk are common to a variety of tourism experiences, but it is the deliberate acceptance of *physical* risk by adventure tourists, that describes its uniqueness. This proposition is supported by the statement that "only in outdoor adventure pursuits is there a deliberate inclusion of activities that may contain threats to an individuals health or life" (Ewert, 1989, p. 8). This logic forms the basis of the proposition that makes adventure tourism unique within the collective group of tourism experiences available to the commercial tourist. For example, tourists embarking on a cultural tourism experience such as watching an aboriginal ceremonial dance, are not deliberately seeking or accepting the chance of physical risk. However, it may be argued that a person about to participate in a bungy jump is seeking or at the very least accepts the chance, however remote or unrealistic it may be, of sustaining physical injury. The most important thing for the adventure tour operator is to "match tourist demand to industry supply at appropriate risk levels" (Morgan and Fluker, 2003, p. 57) and this can be done by balancing "safety, the abilities and skills of participants, and real and perceived risk" (Hall, 1992, p. 145).

2.3 Motivation

Phase 1 of the Risk Recreation Model considers the dominant psycho-social antecedents which underlie attraction to risk recreation activities. In other words, what motivations do Australian domestic and English speaking international tourists to Australia have when they are initially attracted to an adventure experience? This is directly related to the second aim of this study, to understand the motivations of adventure tourists to engage in an adventure tourism activity. According to Harrison and Husbands (1996), the long-term goal of sustainable tourism is to enable a comprehensive development process, whereby products draw from, and add to, the quality of local resources, based on a sound understanding of market motivations. Fodness (1994) says that from a marketing perspective, tourism products can be designed and marketed as solutions to consumer needs. Therefore, it is significant to understand what motivates adventure tourists, especially in relation to risk.

Robinson (1992) identifies two crucial attributes that a participant must possess in order to be motivated towards seeking a risk recreation experience. The first is that the participant must be capable of attending to, efficiently processing, and responding effectively to an array of task-relevant stimuli in an environment, that is rich in sensory stimulation. Secondly, the participant must operate in a purely autonomous manner – that is, they must demand a willingness to accept responsibility for making, and acting on, decisions which may have critical consequences.

There is little argument that task-relevant stimuli and critical consequences are inherent within an adventure tourism experience. However, in a commercial setting, the capabilities and autonomy of the tourist are diminished as "novice consumers increasingly engage in adventure leisure without the necessary skills and competence previously deemed essential to the adventure process" (Holyfield, 1999, p.3). In this commercial scenario, the participant, or "customer", is paying the guide for their expertise. It is argued that this mitigated sense of responsibility (that the adventure tourist is partly paying for in the price of the tour) describes the critical difference between a self-organised recreational adventure pursuit, and commercial adventure

tourism. This is not to say that such organised activities are not conducted on a commercial basis. Indeed, Mount Everest, the highest mountain in the world was first scaled in this manner in 1985 when "a wealthy fifty-five year old Texan with limited climbing experience was ushered to the top of Everest" (Krakauer, 1997, p. 21). Krakauer says of Dick Bass, the wealthy Texan's mountaineering guide, that he "showed that Everest was within the realm of possibility for regular guys. Assuming you're reasonably fit and have some disposable income (about $US65,000), I think the biggest obstacle is probably taking time off from your job and leaving your family for two months" (Krakauer, 1997, p.22).

In regard to tourist motivation theory, Fodness (1994) cites Pearce and Caltabiano as being one of the few empirical studies reported in the literature. Pearce and Caltabiano (1983) based their study on linking Maslow's hierarchy of needs to the level of travel experience, motivational profiles and inferred needs of 198 members of the Travel and Tourism Research Association. Maslow's (1954) Hierarchy of Needs theory describes a motivational structure in which five levels of needs, those being physiological needs, safety needs, belongingness and love needs, self-esteem needs and the self actualisation need, are arranged in a hierarchical manner. Lower order needs must be gratified before higher needs become prepotent (Pearce and Caltabiano, 1983).

Of the tourists surveyed, those with a high level of travel experience were shown to be more concerned with higher order needs (notably love and belongingness and self-actualisation) than were the less experienced travelers (Pearce and Caltabiano, 1993, p. 19). The findings did show that experienced travellers were also more concerned with safety considerations. Pearce and Caltabiano suggest that the reason for this may be this group of travellers are better able to fully appreciate, through their own contacts, some of the dangers of extensive travel. In other words, experienced travellers perceptions of the perils associated with the activity of travel may be more realistic as they are based on first hand experience. This theory may be applied to this particular study in that perceptions an adventure tourist has of a particular adventure tourism activity, may be moderated by the degree of prior experience they have of that particular activity.

Blamey and Hatch (1996), conducted research on nature-based international visitors to Australia. The authors defined nature-based visitors as "those visitors who went to a National Park or participated in: snorkelling or scuba diving; whale watching; horse riding; rock climbing or mountaineering; bushwalking; or outback safari or four-wheel drive tours". Given that seven out of these nine activities are mentioned as examples of adventure tourism in Table 2.6, it is suggested that the findings are highly relevant to this study. Although data were not available for some years (shown as N/A in Table 2.6), Table 2.7 shows that in 1995, 50% of all international visitors to Australia went to at least one National Park at some time during their stay. While it may be untrue to regard these 1,699,500 international visitors as adventure tourists, it does suggest environments conducive to conducting adventure tourism activities are popular.

Table 2.6 Nature Based Activities Undertaken by International Visitors ('000s). Source: Blamey and Hatch, 1996, p. 3.

Activity	1989	1990	1991	1992	1993	1994	1995
Bushwalking*	236.9	298.6	276.2	225.1	383.9	394.5	649.0
Scuba diving/snorkelling*	239.0	275.1	289.4	355.7	365.6	449.7	436.6
Rockclimbing/ mountaineering*	96.0	110.4	100.7	87.4	94.1	100.3	78.6
Horse riding/trail riding*	53.2	85.8	63.5	64.4	62.7	81.0	83.8
Canoeing/kayaking*	41.7	47.4	50.5	35.6	N/A	N/A	N/A
Outback safari tours*	36.5	59.2	50.3	46.7	67.0	61.9	95.2
Wildflower viewing	N/A	N/A	N/A	N/A	105.4	92.3	N/A
Whitewater rafting*	N/A	N/A	N/A	N/A	N/A	43.6	59.1
Viewing coral	N/A	N/A	N/A	N/A	N/A	367.8	N/A
Rainforest walks	N/A	N/A	N/A	N/A	N/A	356.9	N/A
National parks/State parks/reserves/caves	N/A	N/A	N/A	N/A	1,236.5	1,543.5	1,699.5
Aboriginal sites	N/A	N/A	N/A	N/A	232.3	238.3	373.6
Whale watching	N/A	N/A	N/A	N/A	N/A	N/A	45.4
All visitors	1,937.0	2,065.4	2,216.6	2.425.8	2,783.4	3,104.6	3,422.0

* denotes those activities that appear in Table 1.1 (Adventure Tourism Activities)

Table 2.7 Proportion of Total International Visitors Participating in Nature Based Activities('000s). Source: Blamey and Hatch, 1996, p. 3.

Activity	1989	1990	1991	1992	1993	1994	1995
Bushwalking	12%	14%	12%	9%	14%	13%	19%
Scuba diving/snorkelling	12%	13%	13%	15%	13%	14%	13%
Rockclimbing/ mountaineering	5%	5%	5%	4%	3%	3%	2%
Horse riding/trail riding	3%	4%	3%	3%	2%	3%	2%
Canoeing/kayaking	2%	2%	2%	1%	N/A	N/A	N/A
Outback safari tours	2%	3%	2%	2%	2%	2%	3%
Wildflower viewing	N/A	N/A	N/A	N/A	4%	3%	N/A
Whitewater rafting	N/A	N/A	N/A	N/A	N/A	1%	2%
Viewing coral	N/A	N/A	N/A	N/A	N/A	12%	N/A
Rainforest walks	N/A	N/A	N/A	N/A	N/A	11%	N/A
National parks/State parks/reserves/caves	N/A	N/A	N/A	N/A	44%	50%	50%
Aboriginal sites	N/A	N/A	N/A	N/A	8%	8%	11%
Whale watching	N/A	N/A	N/A	N/A	N/A	N/A	1%

In identifying the motivations of these tourists, the authors adopted the Pearce and Caltabiano Travel Career Ladder approach (Pearce and Caltabiano, 1993). In doing so, Blamey and Hatch make the distinction between 'motivations' and 'reasons to visit', being that a motivation is necessarily tied to the needs of an individual. "For motivation to arise, individuals must not only recognise (implicitly or explicitly) that they have a need, but also understand how a particular product will satisfy it" (Blamey and Hatch, 1999, p.44). These antecedent needs were developed into a group of thirteen statements based on Maslow's hierarchy of needs as can be seen in Table 2.8 and the importance of each, for international visitors to Australia in Table 2.9. While it is unfortunate that Blamey and Hatch did not consider the amount of prior experience respondents had of the particular activities, it can be seen that the most important motivation for this group of tourists is seeing the natural beauty of the site visited. This finding is in conflict with Sung, Morrison and O'Leary, 1996, who suggest that the activity rather than the sightseeing opportunities represent the prime purpose of the trip. Perhaps this indicates a distinction which can be made between a nature-based tourist and an adventure tourist.

Table 2.8 Hypothesised Location of Motivational Items on the Travel Career Ladder. Source: Blamey and Hatch, 1996, p. 45.
Classification: Fulfilment
1. Being close to nature
Classification: Self-esteem and development
2. An educational/learning experience
3. Seeing wildlife in detail
4. Something to tell my friends about
Classification: Relationship
5. An opportunity to be with friends and family
Classification: Stimulation
6. A chance to see or experience something new
7. Exciting experiences
8. A different or unique way of experiencing nature
9. Seeing the natural beauty of the sites visited
Classification: Relaxation/Bodily needs
10. A chance to escape towns and cities
11. An opportunity to rest and relax
12. A chance to escape tourism masses/crowds
13. Being physically active

Table 2.9 Importance of Travel Career Ladder Motivations for Nature-Based International Visitors. Source: Blamey and Hatch, 1996, p. 46.

Motivation	Very important	Important	Neither important nor unimportant	Unimportant or not at all important	Mean rating
Seeing the natural beauty of the sites visited	79.9%	18.2%	1.3%	0.6%	4.8%
An opportunity to be with friends and family	18.1%	17.0%	17.3%	47.6%	2.7%
A chance to see or experience something new	70.3%	24.8%	2.9%	2.0%	4.6%
Being close to nature	64.9%	29.4%	5.1%	0.6%	4.6%
Exciting experiences	58.2%	25.7%	11.3%	4.8%	4.3%
A chance to escape towns and cities	39.0%	26.3%	20.0%	14.6%	3.8%
An opportunity to rest and relax	31.2%	29.6%	22.6%	16.6%	3.7%
A different or unique way of experiencing nature	54.8%	32.6%	10.3%	2.3%	4.4%
Seeing wildlife in detail	66.5%	28.8%	4.2%	0.6%	4.6%
An educational/learning experience	38.2%	31.3%	17.1%	13.5%	3.9%
A chance to escape tourism masses/crowds	30.8%	25.8%	26.8%	16.7%	3.6%
Being physically active	35.4%	33.4%	18.2%	12.9%	3.9%
Something to tell my friends about	38.7%	28.9%	20.0%	12.5%	3.9%

Note:

- Percentages may not add up to 100 due to rounding
- Scale runs from 1, indicating that the motivation is not at all important, through 2 (unimportant), 3 (neither important nor unimportant), 4 (important) and 5 (very important).
- Mean rating is the arithmetic average of all responses

Gnoth (1977) compares motives to "push" factors and motivations to "pull" factors. According to Dann (1977) pull factors are those which attract the tourist to a given destination and push factors refer to the tourist and explain those factors which predispose him or her to travel. These motives are both emotive and cognitive. They include the need for escape or nostalgia, and are explained by the concepts of anomie and ego-enhancement. Anomie refers to a person's society and the need for them to "get away from it all". This may be induced by a person's desire to transcend the feeling of isolation or crowding obtained in everyday life. Ego-enhancement derives from the need to be recognised. The ability for a person to recount a story among friends about how

they spent 14 days rafting down a dangerous river, may afford the storyteller a degree of status, feelings of superiority and ego boost. Dann (1977) suggests that it is the twin concepts of anomie and ego-enhancement coupled with "fantasy" that provide the traveller with an alternate world in which needs can be satisfied. In other words, the emotional push factors that induce a person to travel may be the need to escape the humdrum of their every day life, engage in an activity that boosts self esteem and allows the person to behave in a manner normally circumvented by the dictates of convention.

The issue of individuals being either intrinsically or extrinsically motivated towards engaging in adventure requires some discussion. Ewert (1985) considers this point when exploring the concept of people having different motivations as a function of experience in a given activity. Ewerts study of 460 mountain climbers at the Mount Rainier National Park found that the dominant motivations for the inexperienced mountain climber were recognition, escape and social activities. Ewert describes these motivations as extrinsic and contrasts them with the intrinsic motivations apparent in the group of experienced mountain climbers. These internal motivations include exhilaration, challenge, personal testing, making decisions, and locus of control. It may be that the inexperienced adventure tourist, is more motivated by extrinsic rewards. Table 2.10 describes the six factor groups and the motivation items in each group found in Ewert's study.

Table 2.10 Varimax Analysis of Motivations in Mountain Climbing. Source: Ewert, 1985.

Rotated Factor Loadings							
Motivation Item	Challenge/ Risk	Catharsis	Recog-nition	Creativity	Locus of Control	Physical Setting	Common-ality
Exhilaration	51						44
Accomplishment	57						48
Excitement	59						48
Because of risks	42						51
Physical skills	54						48
Personal testing	62						51
Solitude		44					35
Relaxation		56					45
Disengagement		52					39
Slow mind		65					50
Personal values		40					56
Escape authority		35					38
Recognition			71				58
Competition			45				43
To show others			70				53
To be a "mountaineer"			54				44
To help others				50			43
Creativity				43			47
Self-Expression				38			35
Photography				37			18
Use mind				53			56
To think				41			56
Develop abilities					57		46
Make decisions					61		58
Gain control					50		36
Team effort					53		49
Freindships					50		54
Enjoy wilderness						83	73
View scenery						73	59
Be close to nature						53	52
Reliability	.74	.69	.74	.73	.75	.73	.89
Eigenvalues	7.42	2.85	1.86	1.36	1.26	1.02	
Percentage Variance	40.30	15.50	10.20	7.40	6.90	5.30	
Cumulative Percent	40.30	55.80	66.00	73.40	80.20	85.50	

In a study of 330 whitewater rafting participants conducted by Fluker and Turner (2000), of the 21 motivational variables measured 11 were significantly different at a 95% confidence level, between those with and those without prior rafting experience. The

findings, as shown in Table 2.11 suggest that for those participants without prior commercial whitewater rafting experience, their motivations are exploratory in nature. Participants with prior rafting experience appear to be motivated by social, environmental and recuperative motivations. These findings do not suggest a strong internal or external persuasion based on past experience, they do suggest definite variations in motivations based on prior experience.

Table 2.11 Comparison of Significantly Different Motivations of Whitewater Rafting Participants Based on Past Experience. Source: Fluker and Turner, 2000, p 384.

Variable	Mean rank: without prior rafting experience (n=253)	Mean rank: with prior rafting experience (n=77)	Mann Whitney U test	z-test	2-tailed probability
To escape the humdrum of everyday life	175	151	8577	-1.9758	.0482*
To do it before I get too old	174	142	7788	-2.5908	.0096**
Because a friend had recommended it to me	178	127	6747	-4.1668	.0000***
To do something I had always wanted to do	179	131	6967	-3.8972	.0001***
To see if I like river activities	180	127	6714	-4.3483	.0000***
Because I don't have the experience to do it myself	169	147	8274	-1.8933	.0583*
To have fun	165	190	8670	-2.1515	.0314*
For rest and recuperation	161	191	8002	-2.4388	.0417*
Because I enjoy rafting	126	207	3601	-7.5085	.0000***
To be with my friends	158	190	7786	-2.6134	.0090**
To be closer to the natural environment	162	195	8004	-2.7395	.0062**

*p<0.05 **p<0.001 ***p<.0001

Csikszentmihalyi (1975) describes rock climbing as an autonomous sport that involves physical danger, has no discernible external rewards and to which feats attained are impervious to inclusion in the Guinness Book of Records. The motivation to engage in this type of activity, according to Csikszentmihalyi, has to do with the intrinsic rather than extrinsic rewards associated with it. A crucial component of enjoyment in such autotelic activities is the concept of "flow" (Csikszentmihalyi, 1975).

Csikszentmihalyi defines the state of flow as being when "action follows upon action according to an internal logic that seems to need no conscious intervention by the actor. He experiences it as a unified flowing from one moment to the next, in which he is in

control of his actions, and in which there is little distinction between self and environment, between stimulus and response, or between past, present, and future" (Csikszentmihalyi, 1975, p. 36). Oliver uses the following analogy to explain the flow experience in rock climbing: "the climber is required to centre attention on a narrow range of concerns – in space, on problems literally at hand, and in time. Other concerns are rendered distracting and therefore irrelevant to the task purpose, and are screened out from this clearly defined stimulus field" (Oliver, 1992, p. 58). McIntrye, (1994), likens Csikszentmihalyi's concept of flow to short term involvement. This refers to the "degree of cognitive, affective and behavioural investment a person has in a situation, a recreational activity or a recreation place" (McIntyre, 1994, p.4).

This inward focus, resulting from the cognitive effort required to deal with heightened emotions in a stressful situation is a positive experience when the optimal levels of competencies are matched with situational risk. Flow is very similar to the concept of "peak adventure" as outlined in the previously mentioned Adventure Experience Paradigm proposed by Priest, 1992.

When this interplay of competencies and risk is at the optimal level, the physiological response to the experience is pleasurable. This pleasure, according to Jones and Ellis, 1996, has a neurological basis. It has been understood that the naturally occurring opiatelike peptide named b-endorphin is "secreted from the pituitary gland in response to psychological and physical stress" (Jones and Ellis, 1996, p. 278). In their study of 12 students involved in a rope course in which they were asked to indicate their levels of arousal/pleasure, desire to repeat as well as their level of perceived risk. Blood samples were taken from the participants prior to and immediately after the experiment and later analysed for levels of b-endorphin. It was found that b-endorphin was "secreted in significantly ($p = .04$) higher amounts as a result of exposure to an activity featuring a perception of risk" (Jones and Ellis, 1996, p. 288). While this physiological response to a high perceived risk activity was paralleled with the subjective measures of pleasure and arousal, it did not result in a desire for the participants to repeat the experience. The authors suggest that "some of the participants found it to be a bit extreme" (Jones and Ellis, 1996, p. 288) and that this may be why they chose not to repeat it. The study

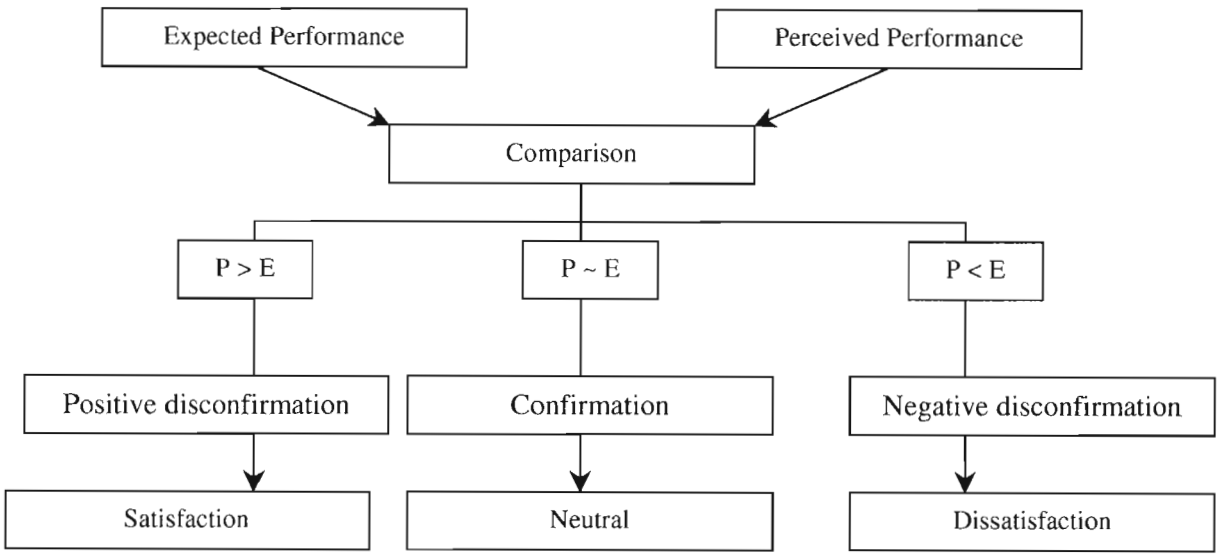
concludes that the secretion of b-endorphin during the performance experience may serve as a powerful incentive to engage in risk-taking behaviour.

In summary, it is apparent that a relationship between the level of prior experience a participant has of an adventure tourism experience and their identified motivation exists. By understanding more about this market segment, providers of adventure tourism experiences will be better able to provide a more targeted product designed to meet these specific needs.

2.4 Satisfaction

The fifth phase of the Risk Recreation Model involves the participant seeking information which will allow him or her to "gain an understanding of the factors which underlie their success or failure outcomes" (Robinson, 1992, p. 59). In this way, the participant may be able to assess the experience as being satisfactory or unsatisfactory in terms of meeting their particular needs. This is directly related to the third aim of this study which is to understand the satisfaction adventure tourists have of an adventure tourism experience, and is shown as one of two outcomes (positive or negative) in the Commercial Adventure Tourism Operating Environment Model (Morgan and Fluker, 2003). Spreng, MacKenzie and Olshavsky (1996) state that much research into customer satisfaction has been focussed on the empirically supported disconfirmation of expectations model. Essentially, the model suggests that feelings of satisfaction arise when consumers compare their perceptions of a product's performance to their expectations. If perceived performance exceeds a consumer's expectations (a positive disconfirmation), then the consumer is satisfied. But if perceived performance falls short of his or her expectations (a negative disconfirmation), then the consumer is dissatisfied (Spreng, MacKenzie and Olshavsky, 1996, p. 15). The third outcome is if the consumers' expectation is met, resulting in a "neutral" (Walker, 1995, p.6) state. This can be seen below in Figure 2.5.

Figure 2.5 The Disconfirmation Model of Consumer Satisfaction. Source: Walker, 1995, p.7.



Anderson, Fornell and Lehmann (1994) suggest that in general, high customer satisfaction should indicate increased loyalty for current customers meaning that more customers will repurchase (be retained) in the future. The relationship between purchase intentions and customer satisfaction was considered by Taylor and Baker (1994). What these researchers found was that "higher levels of satisfaction result in higher levels of purchase behavior" (Taylor and Baker, 1994, p. 172) and that this finding should be of no surprise to most managers of service organisations.

Sheppard et al. (1998) counter this intuitively positive relationship between satisfaction and repeat visitation by suggesting that positive satisfaction may indeed lead to negative intentions towards repurchase. The authors go on to say that the individual who wishes to visit a particular destination at least once in his/her lifetime may be unlikely to repeat that experience, regardless of their satisfaction level. This is because the knowledge gained and recollections associated with one's overall experience may have a life span limited only by human understanding and recollection. In other words, the memories of the experience can last a lifetime. The comparison is made between tangible, durable goods, which have a life span beyond 3 years such as a new roof on a house and lasting intangible, or durable, service products. High satisfaction in an experience of which the

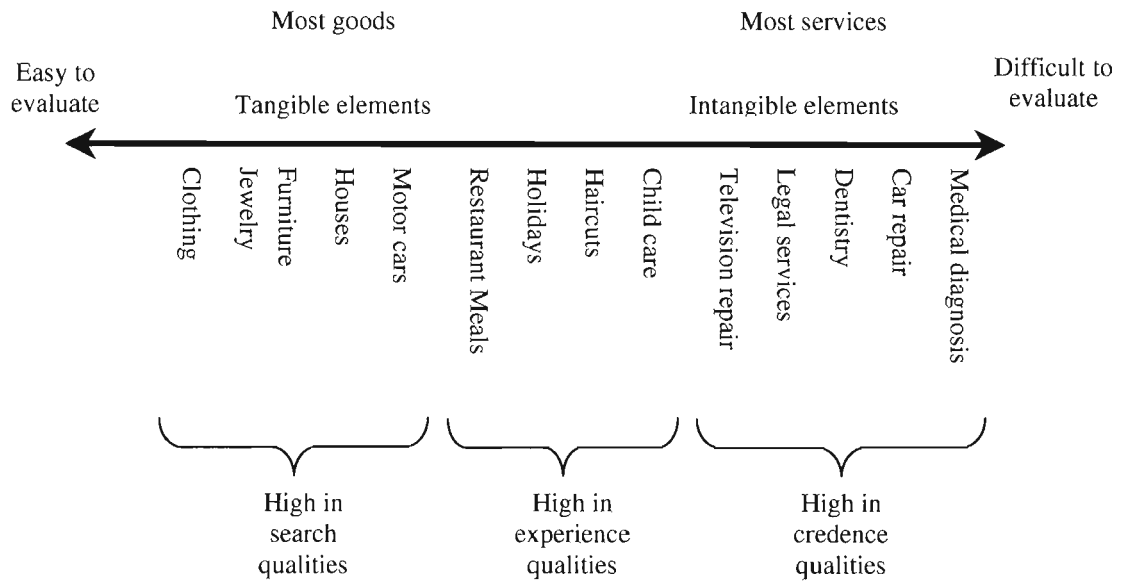
participant perceives a "lasting memory" quality may lead to non-repeat purchase in the near future. This may be the case in some forms of adventure tourism because of the lasting memory brought about through often intense emotions felt during the experience.

Walker (1995), suggests that goods and services can be conceptualised on a continuum ranging from tangible to intangible. Walker theorises that consumers will be more concerned with satisfaction in regards to search qualities, experience qualities or credence qualities, depending on where the good or service sits on the continuum.

> "Search qualities are those that a consumer can determine prior to purchasing, experience qualities are those that can only be discovered after purchase or during use, and credence qualities are those that a consumer may find impossible to evaluate, even after purchase and consumption" (Walker, 1995, p. 5).

It can be seen in Figure 2.6 that for a holiday experience, consumers will be more concerned with attributes such as the physical environment, encounters with the staff and waiting times than either search or credence attributes. These experience qualities take place as the consumer is actually experiencing the service, or during the "service encounter" (Bitner, et al., 1994, p. 95). Indeed, Bitner (1990), found that customers of a service encounter, in this case 145 travelers waiting to board airplanes at an international airport, were influenced by nonverbal cues such as the firm's physical appearance in regards to their level of satisfaction.

Figure 2.6 The Goods/Service Continuum. Source: Walker, 1995, p. 6.



Thus far, the way in which the cognitive and affective components of adventure tourism interact have been discussed in relation to how risk is initially perceived, how it effects motivation and the appraisal of situational risk. These two concepts are now discussed as dependant variables within the paradigm of satisfaction.

Yi (1990), suggests that satisfaction may not be a solely cognitive phenomenon and is likely to comprise an element of effect or feeling. Oliver (1993) discusses affective, or emotive behaviour, in relation to satisfaction. The author suggests that positive effects positively influence satisfaction and negative effects are negative influences on satisfaction. The positive effect is divided into two dimensions. The first is the amount of "joy" derived from the event and the second is the amount of "interest" that the participant has in the event. The concepts of interest and joy are discussed in the adventure literature. Joy is linked to positive effects such as the intrinsic feelings of well-being and enjoyment achieved through an adventure experience and are the reasons for people returning to the activity (Priest and Carpenter, 1993). Feelings of well being and enjoyment as a result of encounters with risk are described in the previously mentioned Csikszentmihalyi (1977) model of "Flow". The flow model represents combinations of

action opportunity and action capability. Depending on the mix of these two concepts, outcomes may lead to boredom, anxiety or "flow". In regard to "interest", levels of interest and preference are likely to influence the amount of perceived risk that a person has (Cheron and Ritchie, 1982).

The negative affect is divided into internal, external and situational responses, all of which relate to the locus of control (Oliver, 1993). Feelings of shame and guilt are examples of internally related affects, caused by the participant. Anger, disgust and contempt are examples of externally oriented affects whereas fear and sadness are situational examples. Within an adventure tourism paradigm, a person who feels they do not have the required level of competence to accomplish a certain climb up a rock face may elicit an internal feeling of shame. If that person had arrived at the rock face with a commercial guide and found out that the guide had forgotten to bring the climbing rope, then externally oriented feelings towards the operator, such as anger, disgust and contempt may arise.

Robinson (1992), in the Risk Recreation Model, describes this emotional evaluation of the experience as initially being a part of the short lived "intuitive appraisal" stage. Here, the participant perceives their performance experience as falling somewhere along an internalised subjective continuum. This continuum ranges from "unsuccessful (characterised by lack of physical or emotional control) which is associated with a broad set of negative general affects (unhappy, dissatisfied, frustrated), to successful (characterised by a strong sense of control) that is associated with a broad set of positive general affects (happy, satisfied, content) (Robinson, 1992, p. 59). However, should an adventure tourist experience a negative emotion such as fear, does this necessarily result in dissatisfaction? This has not been empirically tested to date.

Following this intuitive appraisal stage, the Risk Recreation Model posits that the participant enters the reflective appraisal stage which describes how the participant searches to identify the causes of his or her performance experience. This differs from Oliver's 1993 model, in that a cognitive process is employed on the emotional outcome. According to Robinson (1992), this reflective appraisal stage hinges upon how the

participant believes that the adventure experience reinforces their sense of self-identity. For example, if a person regards themselves as being "adventurous" or "self-sufficient" and has experienced positive (successful) emotions such as happiness or contentment as a result of their perceived abilities, then according to Robinson (1992, p. 60) they will "be associated with enduring positive self-esteem".

According to Yi (1990), many authors define customer satisfaction either as an outcome or a process. In the outcome approach, the focus is on how the customer responds to the consumption of a product or service after the fact, such as is described and supported within the intuitive/reflective stage of the Risk Recreation Model. Yi quotes Oliver (1981) as giving the following "outcome-focussed" definition of CS, "it is the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (Yi, 1990, p. 69). Oliver (1981), goes on to say that "moreover, the surprise or excitement of this evaluation is thought to be of finite duration, so that satisfaction soon decays into (but nonetheless greatly effects) one's overall attitude toward purchasing products" (Oliver, 1981, p. 27). The Risk Recreation Model model appears to be in agreement with Oliver in that it suggests that in developing emotional and intellectual commitment to the adventure experience, through positive intuitive and reflective appraisal, the "experience enlarges into many aspects of the participants life, changing attitudes and values" (Robinson, 1992, p. 60).

One may assume that many adventure activities provide elements of excitement, for example, bungy jumping which has been described as one that "certainly appears potentially life-threatening" (Middleton et al. 1996, p.69). Therefore, having successfully completed a bungy jump, the intensity of the excitement, or indeed of other emotional states, may effect the attitude of the participant more so, than for tourism experiences eliciting lower emotional states.

This outcome approach is also referred to as the perceived disconfirmation method and "represents a subjective evaluation of the discrepancy between product performance and expectations which is directly perceived by the consumer" (Yi, 1990, p. 93). Here, the

researcher needs only to make one measurement in the post-purchase phase. The consumer may be asked to rate their response to a question such as "the service was a little better than I expected" (Swan and Trawick, 1981, p. 53). This method relies on the consumer being able to accurately remember their pre-purchase expectation so that they may make a comparison.

The second approach suggested by Yi (1990), is that customer satisfaction is an evaluative process. Yi uses a definition quoted from Tse and Wilton (1988, p.204), which is that CS is "the consumers response to the evaluation of the perceived discrepancy between prior experiences (or some other norm of performance) and the actual performance of the product as perceived after its consumption". With this approach, the consumer works through a pre and post-experience process.

In measuring the disconfirmation of peoples' expectations in this process model, Yi (1990) refers to the inferred method. This involves the researcher calculating the difference between a consumer's pre-experience expectations and their post-experience perceptions. Typically, this is achieved by the respondent indicating (often within a totally agree – totally disagree Likert scale) their agreement with a statement like "I expect the equipment to be in good order" during the pre-experience phase, and "the equipment was in good order" during the post-experience phase. The discrepancy between these two measurements is then compared and a level of satisfaction then inferred by the researcher. Swan and Trawick (1981) found that the inferred method was best in capturing the disconfirmation experience because, unlike the perceived disconfirmation method, it does not rely on the accuracy of the respondents memory.

Robinson's "disposition," or degree of willingness a person has in choosing a particular adventure activity, may be influenced by the mood the person is in. The impact of mood on the formation of customer expectations is discussed by Martin and Simmons, 1999. These authors suggest that the sources people use to form expectations include "memories of actual experiences, perceptions of current stimuli, inferences drawn from related or similar experiences and information from others" (Martin and Simmons, 1999, p. 72). The proposition is that mood affects the way in which these sources of

expectation formation are interpreted. For example, people who are in a good mood may see a cup half filled with water as "half full", whereas a person in a bad mood may see the cup as being "half empty". In a commercial context, "consumers form more negative experiences if they are in a bad mood and take less risks and are thus less likely to buy, whereas consumers in a good mood are more willing to take a risk and are more easily convinced to buy" (Martin and Simmons, 1999, p. 73). Middleton, Harris and Surman, (1996) suggest that positive mood is related to increased unrealistic optimism, while negative mood is related to a reduction, but not elimination, of optimistic biases.

This "good mood – positive expectation" theory is supported within the context of mood and leisure by Hull (1990), when he suggests that the mood that potential customers are in "colours one's evaluations of situation" (Hull, 1990, p. 103). Hull defines mood as "a specific set of subjective feelings which occur as a consequence of everyday leisure experiences" (Hull 1990, p. 99) and says that if a person enters an environment in a good mood, they are more likely to evaluate things positively, and be more likely to maintain that good mood. Izard (1991, p.21), defines mood as "the term used to describe emotion that endures" and the eight basic emotions, according to Izard are, "interest, enjoyment, surprise, sadness, anger, disgust, contempt, and fear" (Izard, 1991, p. 49).

Gnoth (1997) speaks of holiday tourism as having the features of underlying hedonic or emotionally driven behaviour and that when a tourist evaluates a destination or other tourist facility "the extent to which values are cognitively or emotionally motivated distinguish them as to the level of emotional drive they contain" (Gnoth, 1997, p. 298). Therefore, being motivated by an emotionally dominant expectation may cause a person to experience a "specific action tendency – the first sign that emotion is working to organise thought and action" (Izard, 1991, p. 23). For example, a person expecting interest, enjoyment and perhaps even fear from a particular adventure activity such as rock climbing, may explain why "people are attracted to an activity that offers no rational rewards" (Csikszentmihalyi, 1975, p.75).

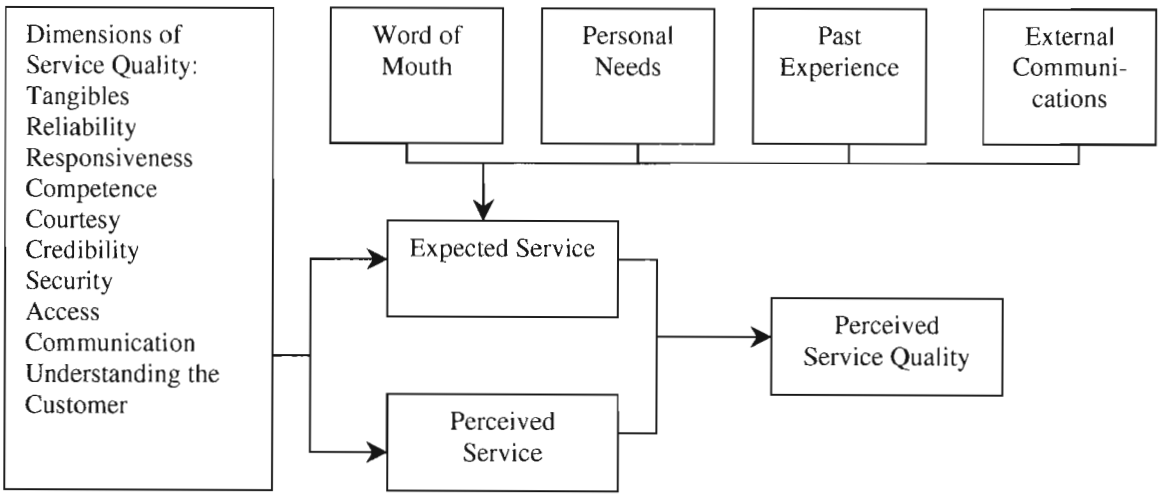
Gnoth (1997) says that expectations determine performance perceptions of products and services as well as perceptions of experiences. The relevance of this is that an adventure

tourist's perception of risk, or indeed other attributes of the experience, may be influenced by the person's motivations, expectations and level of prior experience. This attitudinal approach also shows how "motivation impacts on satisfaction" (Gnoth, 1997, p. 283), as "virtually every model of the satisfaction process posits that feelings of satisfaction arise when consumers compare their perceptions of a product's performance to their expectations" (Spreng, MacKenzie and Olshavsky, 1996, p. 16). This "expectancy disconfirmation" method of evaluating an experience is, according to Oliver (1993), cognitive in nature.

A concept closely related to, "but not equivalent to satisfaction" (Cronin and Taylor, 1992, p. 56), is service quality. These authors suggest that service quality is what the consumer *should* expect, whereas in measures of satisfaction the appropriate comparison is what the consumer *would* expect. Parasuraman, Zeithaml and Berry (1988) discuss how service quality is involved with perceived quality and can be defined as "the consumers' judgement about and entity's overall excellence or superiority" (Parasuraman, Zeithaml and Berry, 1988, p. 15). The relationship between the two concepts is explained by Taylor and Baker (1994), when they suggest that "satisfaction appears to moderate the relationship between service quality and purchase intention" (Taylor and Baker, 1994, p. 172).

The inferred method of service quality is defined "as the discrepancy between customers' expectations and perceptions" (Parasuraman, Zeithaml and Berry, 1994, p. 111). These three authors developed an instrument named SERVQUAL to measure perceived service quality as opposed to the quality perceived with tangible goods. The dimensions of service quality are shown in Figure 2.7. This model was subject to criticism from Cronin and Taylor (1992), when they suggested that "the current conceptualisation and operationalisation of service quality (SERVQUAL) is inadequate" (Cronin and Taylor, 1992, p. 55). The basis for this criticism was the lack of empirical or theoretical evidence to support SERVQUAL, the fact that the model is based on a satisfaction paradigm rather than an attitude model, and that the model confirmed only two of the four industries tested.

Figure 2.7 The Customers Assessment of Service Quality. Source: Zeithaml, Parasuraman and Berry, 1990, p. 23.



In summary, it is important to recognise that customer satisfaction does effect a consumers' post-purchase behaviour. By finding out more about this relationship within the paradigm of adventure tourism, the fourth aim of this study (to determine the relationship between perceived risk as a motivation for participating in an adventure tourism experience and post-event tourist behaviour), may be addressed. It appears that the inferred method of calculating customer satisfaction is more accurate than the perceived method.

2.5 Information Sources

Blamey and Hatch (1998), who studied nature-based tours, used eight variables when gathering data about the information sources used by international tourists to Australia. These variables are newspaper/magazine article, brochure at a hotel/motel or backpackers accommodation, newspaper/magazine advertisement, travel guide or book, travel agent/booking agency, radio/TV, word of mouth, and clubs/societies.

As "clubs/societies" was selected by less than 0.3% of the respondents in the Blamey and Hatch (1998) study, (refer to Table 2.8), it was decided to leave this variable out and use the remaining seven groups. However, in order to provide a greater degree of sensitivity,

the variables relating to newspaper/magazine articles and stories, as well as TV and radio, were divided into Cairns based or home town based location sources. This was done to recognise the fact that a company may have advertised in a local magazine, as well as a national or international publication.

2.6 Adventure Tourism Destination Regions

For research purposes, Australia is divided up into 84 tourism regions (O'Halloran, Cook, Sbragi and Buchanan, 2000, *p. xiii*). According to O'Halloran et al., seven of these regions are described as capital cities (Adelaide, Brisbane, Canberra, Darwin, Hobart, Melbourne, Perth and Sydney), while the remaining 75 regions are regarded as rural. The region selected for this study has, as it's major centre, Cairns. This centre is located in the rural region known as Far North Queensland (FNQ). It is apparent that the FNQ region is sometimes referred to as "Tropical North Queensland". This study recognises that the two names refer to the same region, but will use the name "Far North Queensland" (FNQ) to save confusion. Appendix 1 shows where the state of Queensland is situated within Australia.

The popularity of this region for both domestic and international visitors includes the following description of some of the tourism infrastructure:

> "In the June quarter of 1996 it was estimated by the ABS in their publication Tourist Accommodation – Queensland, that Cairns had 76 hotels, motels and guest houses with nearly 6,000 guest rooms and the Douglas shire had a further 21 establishments and 1,700 rooms, representing over 85 percent of the rooms available in the entire FNQ region. Add to this 1,450 units, flat or houses for short term rent, 34 caravan parks and a significant number of backpacker type hostels and it is clear that visitors are well catered for in terms of accommodation. To put these numbers in perspective, Cairns had more guest rooms available than Brisbane (the capital city of Queensland).

> Other facilities in Cairns include, but are not limited to, large shopping centres, licensed clubs, modern deep water port facilities, several large wave piercing vessels for reef visits, many boat charter companies, several vehicle hire companies, coach companies and a plethora of tour operators offering anything from a half day tour of the northern beaches to multi-day 4WD trips to the tip of Cape York." (Johnson, 2000, p. 46).

The 2000/01 Queensland's Tropical North Sunlover Holidays brochure, lists many different operators, or individual companies, that offer adventure tourism activities in this region. These operators include ten offering scuba diving, eight offering cruises to the Great Barrier Reef, eight offering cruises to the islands, three whitewater rafting operators offering eight different rafting trips, two sea kayaking operators, nine 4-wheel drive safari operators, two hot air ballooning operators, one para-sail operator, three fishing tour operators, one horse riding operator and two trekking operators. It can be seen from this list that the FNQ region offers an abundance of adventure tourism activities and is arguably the region within Australia that offers the highest concentration of adventure tourism product.

From April 1996 to March 1997, Cairns received 1,012,000 domestic travellers (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 151). This represents 7 percent of the total number of domestic travellers for the state of Queensland, with Queensland receiving 19 percent of all Australian domestic travellers for the same year (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 151). Cairns also received 1,164,000 domestic visitors in 1998, and 1,236,000 in 1999, representing an increase of 6.2% (Tourism Queensland, 2000).

Of the 1,236,000 domestic visitors in 1999, 14% came from Brisbane, 13% from Sydney, 8% from Melbourne, 3% from Perth and 2% from Adelaide. The average length of stay for these visitors was 6.2 nights. Fifty three percent of these visitors identified "holiday/leisure" as their main purpose of visit, with 23% identifying "visiting friends and relatives". Forty five percent of these domestic visitors stayed in a hotel, resort, motel or motor inn, while 47% arrived by private vehicle and 43% by air (Tourism

Queensland, 2000). It can be seen in Table 2.12 that the most popular activity for these domestic visitors was to go to the beach, including swimming and diving.

Table 2.12 Top 6 Activities Participated in by Visitors to Tropical North Queensland Source: O'Halloran, Cook, Sbragi and Buchanan, 2000.

Activity	*Percentage*
Going to the beach (including swimming and diving)	37%
Eat out at restaurants	35%
Just walking around, taking in the sights	33%
Visit national parks, bushwalking	28%
Visit friends and relatives	26%
Go Shopping	24%

In 1995-96, Cairns received 638,000, or one in six, of Australia's 3,642,00 inbound visitors (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 45). These findings have come from both the International Visitor Survey (IVS) and the IVS Rural Supplement, the details of which may be found in Appendices 19 and 20. One reason for the growth in the region's popularity for inbound tourists is that it has an international airport and is the only regional area in Australia with an international airport. Table 2.13 shows that 321,000 (50%) of these overseas visitors visited FNQ and other rural regions, 217,900 (34%) visited FNQ and other urban regions and 99,000 (16%) visited FNQ only. These figures suggest that while many international tourists may treat FNQ as a gateway to other areas of Australia, some choose the region as a holiday destination in itself.

It can be seen in Table 2.14 that in 1995, 11% of all international tourists to Australia visited Green Island, 16% visited North Queensland tropical rainforests and 30% visited the Great Barrier Reef. All these natural attractions are situated within the FNQ region. Table 2.15 shows the percentage of these visitors who engaged in nature-based activities, seven of which may be regarded as examples of adventure tourism. This suggests that FNQ is both a popular destination for international tourists and that once there, participation in nature-based activities is a popular past time.

Of the 755,805 international tourists that visited FNQ in 1999, 37.3%, or 281,784 (Tourism Queensland, 2000) were from a country that has English as a first language. This number is significant as these are the international tourists to be included in the sample for this study.

Table 2.13 Estimated number of Visitors to far North Queensland, by Country of Residence, 1995-96 (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 49).

Country of Residence	Group 1: Visited FNQ and other rural regions	Group 2: visited FNQ and other urban regions	Group 3: visited FNQ only	Total visitors to FNQ
Japan	71,300	99,800	42,300	213,400
Other Europe	70,500	14,200	1,900	86,600
USA*	47,100	29,800	8,900	85,800
UK & Ireland*	45,300	20,900	4,200	70,400
Germany	42,600	5,500	0	48,100
New Zealand*	12,600	5,300	19,600	37,500
Hong Kong	5,600	17,600	1,300	24,500
Canada*	10,200	2,500	1,100	13,800
Singapore	2,300	3,100	5,300	10,700
Korea	1,400	6,500	300	8,200
Other Asia	1,700	1,400	2,700	5,800
Taiwan	0	5,400	0	5,400
Indonesia	900	400	700	2,000
China	100	800	0	900
Malaysia	0	500	100	600
Other	9,400	4,200	10,600	24,200
Total	321,000	217,900	99,000	637,900

** Denotes those international tourists with English as a first language.*

Table 2.14 International Visitors to Selected Natural Attractions in 1995 within FNQ. Source: Blamey and Hatch, 1998, p.66.

Natural Attraction	Number of International Visitors	Share of International tourists
Green Island	193,300	11%
Nth. Qld. Tropical Rainforests	272,800	16%
Great Barrier Reef	516,600	30%

Table 2.15 Nature-based Activities undertaken by international visitors to Australia in 1995. N = 3,422. Source: Blamey and Hatch, 1998, p.3.

Nature-based Activity	Percent of international visitors participating in the activity
Bushwalking*	19 %
Scuba diving/snorkelling*	13 %
Rock-climbing/Mountaineering*	2 %
Horse riding/trail riding*	2 %
Canoeing, kayaking*	na
Outback safari tours*	3 %
Wildflower viewing	na
Whitewater rafting*	2 %
Viewing coral	na
Rainforest walks	na
National/State Parks/reserves/caves	50 %
Aboriginal sites	11 %
Whale watching	1 %
* denotes those activities that appear in Table 1of this study (Adventure Tourism Activities)	

In conclusion, based on the wide range and wide selection of adventure tourism options, and the number of both domestic and English speaking inbound visitor arrivals, the region known as Far North Queensland is deemed suitable as the research site to be used in this study.

3 Chapter 3: Conceptual Framework and Hypotheses Development

The previous sections of this study have provided a working definition of adventure tourism and described the way in which participants interact with the experience, especially in relation to risk, motivations, satisfaction, and post-event intentions within a marketing context. This current chapter will develop a conceptual framework based on the aims of this study, from which a number of testable hypotheses will be developed.

Following on from this chapter, Chapter 4 will then discuss the research methodology required to test the hypotheses. Chapter 5 will then address the first aim of this study by conducting preliminary analysis on the data collected. The aims relating to the motivations and levels of customer satisfaction will be addressed in Chapter 6, and the motivations clients have in relation to post event intentions will be dealt with in Chapter 7. The final Chapter (chapter 8) will then seek to develop marketing strategies, the fifth and final aim.

3.1 Conceptual Framework

Robinson's Risk Recreation Model (1992) and Ewert and Hollenhorst's Model of Adventure Recreation (1989) have been useful in discussing the various stages that an adventure recreationalist may go through before, during and after the adventure experience. The problems associated with transposing these models onto a commercial, as opposed to recreational, experience have been previously discussed. The main issue is the mitigated sense of responsibility purchased by a commercial participant. The Commercial Adventure Tourism Operating Environment Model developed by Morgan and Fluker (2003) has been useful in understanding the zones of operator concern, but does not fully describe the marketing aspect of the experience. It is clear that a new model is required to describe the adventure tourism experience in light of the commercial and marketing bent of this current study.

The conceptual framework proposed by this study begins with Australian domestic and international tourists having already appraised the risks associated with the adventure activity and having made the decision to engage in that activity. This locates the

participant between phase three (decision making: approach/withdrawal) and phase four (performance experience) of Robinson's Recreation Risk Model (refer to Figure 2.2). The first aim seeks to understand the importance of experiencing risk for people about to engage in an adventure tourism experience, rather than tourists who are undecided as to their choice of tourism experience. The assumption derived from the literature review that the deliberate seeking and/or acceptance of the chance of physical risk is unique in adventure tourism when compared to other forms of tourism activity is taken into account, and there is no need to consider the motivations of tourists engaging in other forms of tourism, as the focus of this study is on adventure tourists.

It can be seen in Figure 3.1 that once the decision to engage in the adventure activity has been made, the participants are divided into those who have prior experience, and those who do not. It is clear from the literature review that there may be differences in the motivations and expectations of adventure tourists based on prior experience. Consequently, the left hand column of the conceptual framework is related to those participants with prior experience in the activity and identifies the motivations and expectations they have prior to participating in the particular adventure tourism activity. Similarly, the right hand column is related to those participants without prior experience.

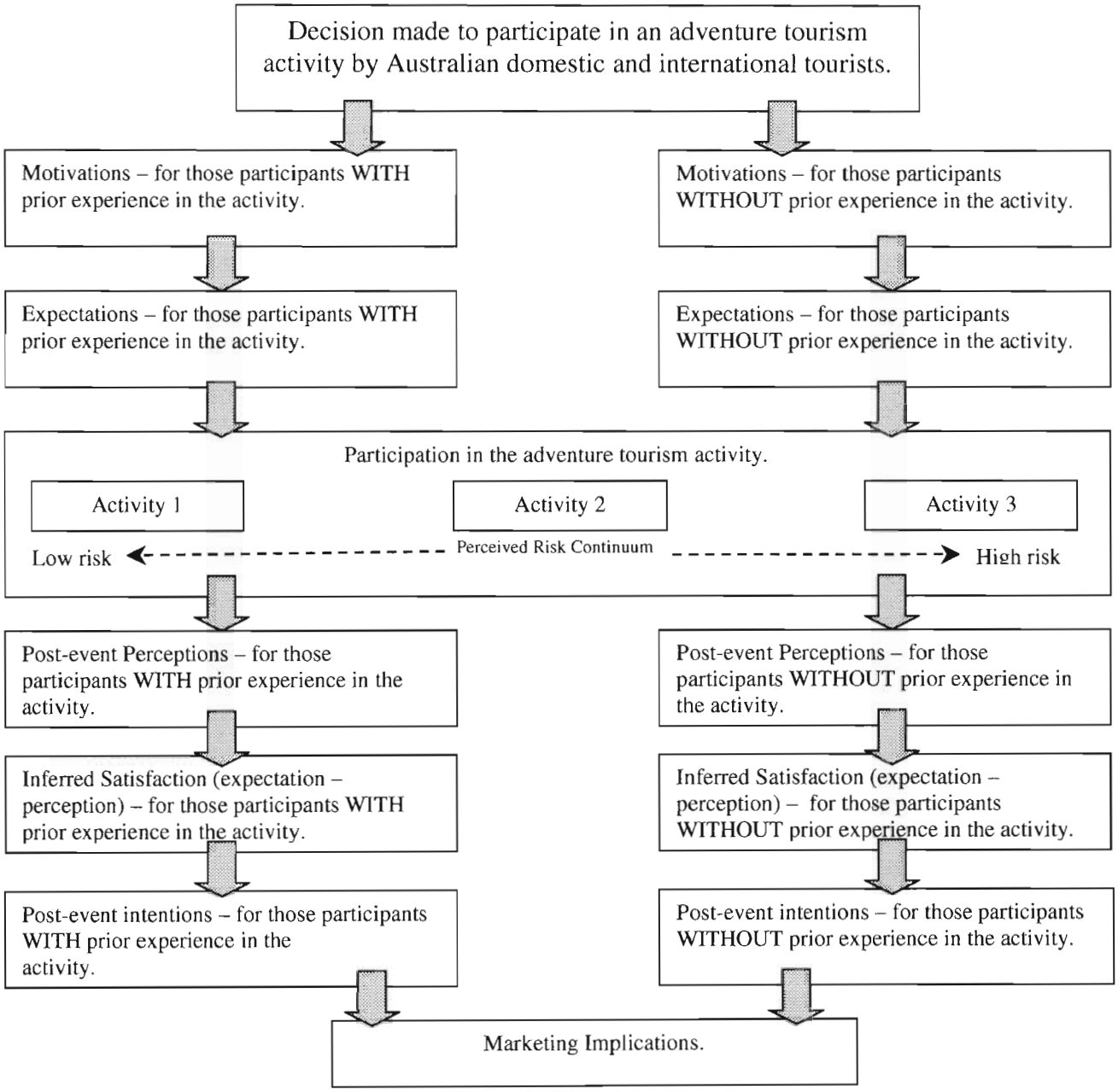
Three adventure tourism activities are shown in the model and are graded from a low to high level of perceived risk. It is clear that participants have different perceptions of risk associated with different adventure tourism activities (Morgan, Moore and Mansell, 1997). Here, the different levels of risk in adventure tourism, as perceived by the tourist, are recognized. In this way, differences may be explored between groups of tourists undertaking activities of presumably different levels of perceived risk.

After the event, the tourist is in a position to report the post event perceptions they have of the adventure activity. These perceptions may also differ between those participants with and without prior experience and by each level of risk. Ultimately, satisfaction can be assessed as the difference between pre-event expectation and post-event perceptions, again possibly differing between those participants with and without prior experience and in reference to each adventure tourism activity.

Having determined a level of satisfaction, the adventure tourist can then report their post-event intentions. This relates to phase five of Robinson's Risk Recreation Model, the "intuitive-reflective appraisal" phase (refer to Figure 2.2). These two measurements are compared based on prior experience, and/or by the level of adventure tourism risk.

Finally, specific marketing strategies can be developed for Australian domestic adventure tourists and inbound tourists (who have English as a first language), based on empirical evidence. These strategies focus upon the ways in which the commercial activity of adventure tourism can best be marketed and organized to enhance satisfaction, taking into account the acceptance and/or deliberate search for risk. Additionally, the different emphasis placed upon the element of risk inherent with people at different levels of competence, and involving different levels of perceived risk in various adventure tourism activities, may also be taken into account.

Figure 3.1 Conceptual Framework of Perceived Risk in Adventure Tourism



3.2 Hypotheses Development

From the conceptual framework (refer to Figure 3.1), a number of general hypotheses can be developed to test relationships between the variables in relation to the 5 aims described in Chapter 1.

3.2.1 General Hypothesis Related to Aim 1

> Aim 1: To determine the importance of experiencing risk in choosing to participate in different adventure tourism activities.

First, it must be determined whether the importance of risk in choosing to participate in adventure tourism activities is a separate measure that varies significantly between different types of adventure tourism activities. Are participants taking part in a particular activity, placing more or less importance on the risk, than participants of a different activity as suggested by the literature? Activities have been hypothesised to have different levels of perceived risk attached to them, and if this is correct, then the analysis of risk must be sensitive to the particular activity undertaken.

This question becomes fundamental to the analysis of this study as it relates directly to the first aim (determining the importance of risk) and indirectly to the fifth aim (develop marketing strategies). If there are no significant differences in importance of experiencing risk in choosing to participate in different adventure tourism activities, the participants of all adventure activities may be analysed as one 'homogeneous' group. However, if each activity is part of a gradient from low to high risk importance, then each activity must be analysed separately.

> H1: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on the adventure tourism activity selected.

According to the literature (Robinson, 1992, Priest, 1992, Ewert and Hollenhorst, 1989, Ewert, 1989), perceived risk is affected by the level of experience the person has of the

experience. The second hypothesis tests whether this is the case with adventure tourists by asking if prior experience is an important factor in determining the degree of perceived risk associated with an adventure tourism activity.

> H2: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their level of prior experience in the adventure tourism activity selected.

If the null hypothesis is to be accepted, then there is no difference in the perception of risk between those adventure tourists with and without prior experience, and this factor need not be taken into account in further analysis.

Are there differences in the way that domestic and English speaking international tourists to Australia place importance on experiencing risk when doing an adventure tourism activity? It has already been determined that an examination of a wide range of cultures including non-English speaking based cultures is beyond the scope of this thesis. However, having limited the study to participants who speak English at home may not be totally descriptive of one cultural group. Indeed national culture may also be of significance. Consequently, different marketing messages may need to be sent to the different national cultures. If not, then the same marketing messages, in relation to risk, may be conveyed to all surveyed groups.

> H3: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their country of origin.

These first three hypotheses are to be tested in Chapter 5 (Preliminary Analysis) and relate directly to the first aim of the study (to determine the importance of experiencing risk in choosing to participate in different adventure tourism activities). The results of these hypotheses, tests the average of the division of the tourist sample, into segments and in particular whether the division between tourists with and without prior experience (depicted in Figure 3.1) is valid. The results determine whether further analysis needs to be conducted with or without separating the research sample into smaller groups. Does

the analysis need to separate the sample by type of adventure tourism activity, level of prior experience, and/or nationality?

3.2.2 General Hypothesis Related to Aim 2

> Aim 2: To understand the motivations of adventure tourists to engage in an adventure tourism activity.

The second aim of this study seeks to determine the motivations (including risk) that a participant has for undertaking an adventure tourism experience. It may be necessary to test this hypothesis with different levels of perceived risk and/or levels of prior experience.

> H4: Motivations to undertake adventure tourism vary between different adventure tourism activities.

3.2.3 General Hypothesis Related to Aim 3

> Aim 3: To understand the levels of satisfaction that adventure tourists have in various adventure tourism activities.

The third aim of the study is related to the levels of satisfaction that participants have in undertaking an adventure tourism experience. Again it may be necessary to test this hypothesis with different levels of perceived risk, different levels of prior experience and different countries of origin according to the findings in the preliminary study. Hypotheses 5 will be tested in Chapter 6.

> H5: Levels of satisfaction vary between different adventure tourism activities.

3.2.4 General Hypotheses Related to Aim 4

> Aim 4: To understand the behavioural intentions of adventure tourists to engage in future adventure tourism activities.

The fourth aim of this study seeks to understand the relationship between perceived risk and post-event behaviour. The following three hypotheses have been developed, based on the conceptual framework, to address this aim and will be tested in Chapter 7.

H6: The adventure tourists' intention to repeat the adventure tourism activity will vary between different adventure tourism activities.

H7: The adventure tourists' future intention to pay for injury insurance will vary between different adventure tourism activities.

H8: The adventure tourists' intention to recommend a particular adventure tourism activity will vary between different adventure tourism activities.

4 Chapter 4: Research Methodology

This chapter describes the research methodology used to collect data that will enable the hypotheses outlined in the previous chapter to be tested. The type of research design chosen, pilot testing of the preliminary questionnaire, questionnaire design, site and activity selection as well as questionnaire administration are discussed. Chapter 5 will then present the results from a preliminary descriptive data analysis and Chapter 6 and 7 the results from the hypotheses testing.

4.1 Research Design

The primary aim of this current research, is to understand the adventure tourist experience in order to derive relevant marketing strategies, that are designed to enhance the ability of adventure tourism operators to attract specific markets.

4.2 Measurement Issues

As the factors encountered by participants of an adventure tourism experience may be difficult or impossible to replicate in an environment other than the actual environment where they are being conducted, a non-contrived field study is required. Additionally, the data to be gathered for this study is to be done during one given period of time. It is therefore cross-sectional in nature. However, since the adventure activities and their settings have remained constant for many years the cross-sectional approach is not considered to be a significant limitation of this study.

The personally administered questionnaire technique was chosen as a method of data-collection. According to Sekaran (1992), a researcher personally administering the questionnaires in the field allows for the collection of completed responses within a short period of time, enabling any doubts that respondents may have regarding any question to be clarified, and allowing the researcher to introduce the research topic to the respondents. Additionally, this method is generally considered a superior form of questionnaire delivery.

4.3 The Adventure Tourism Activities

Selection of the adventure activities to be used in this study requires consideration of the following points. Firstly, the three different activities must not require any previous experience in that activity for the tourist to participate. By ensuring this, the differences between those participants with and without prior experience may be tested.

Secondly, the activities selected should represent a broad spectrum of adventure tourism activities available. Differences in physical environments, types of equipment used, level of guide/client interaction, price and most importantly, the level of risk perceived by the client, should reflect activities within this spectrum. It is proposed that of the adventure tourism activities available in FNQ and also listed in Table 1.1, sailing will be perceived to be the least risky activity by the participants, whitewater rafting a medium risk activity and bungy jumping a high perceived risk activity. There is also a high degree of client/management interaction with these three activities that allows for strong potential marketing strategies and influences to be applied. Hence each of these three activities are examples of a commercial adventure tourism experience, and in which the risk component may be potentially exploited to achieve various marketing outcomes.

Another point to consider is the amount of time it takes to complete the activity. By ensuring that the activities chosen do not take any more than one day to complete, differences occurring as a result of changes over time (such as unexpected weather conditions) are negated.

Having considered these points, and the activities available within the FNQ region, whitewater rafting, sailing and bungy jumping are chosen to be used in this study.

Commercial whitewater rafting is done in a number of locations within the FNQ region. The major rivers that are rafted on a commercial basis are the Barron, Herbert and Tully rivers. The Tully river is generally accepted as being the river that hosts the most commercial clients in a given season, and was chosen for this reason. Of the two whitewater rafting companies that operate tours on the Tully river (Foaming Fury and

Raging Thunder), Raging Thunder was approached and asked if they would allow this research to be conducted on their clients on a voluntary basis, and they agreed. Participants of this experience are charged $AUD145 for the day which includes transfers, lunch, afternoon tea and rafting.

Sailing out of Cairns is a popular adventure activity. One of the many sailing products offered to tourists is a one day trip from Cairns Harbour to Green Island on the yacht named "Ocean Free". The charge for this day tour is $AUD89 for adults and $AUD60 for children and includes, morning tea, lunch, afternoon tea, and snorkelling equipment. The owners of this vessel agreed to allow the author of this thesis on board for as many days as it was necessary to collect sufficient data.

There is only one bungy jumping operation within Cairns. The name of this operation is AJ Hackett Bungy. This is the third activity chosen for this field study and once again, permission was granted by the management of this facility for this research to be conducted. The cost to do one bungy jump at this site is $AUD125.

4.4 Sample Recruitment

The conceptual framework described in Figure 3.1 begins with the adventure tourism participant having made the decision to participate in an adventure tourism activity. To ensure that respondents have in fact made this decision, implementation of the questionnaire must start with adventure tourists who have paid for and are about to engage in a specific adventure activity. Due to the potential cost of data collection, one site has been sought that contains a sufficient number of adventure tourism activities, each representing varying degrees of risk, to allow enough relevant data to be collected in a timely and efficient manner. The site must also have a sufficient number of both domestic and English speaking inbound tourists to allow the third specific aim of this study (to develop specific marketing strategies for Australian domestic adventure tourists and inbound tourists who have English as a first language) to be addressed. As shown in the literature review, Cairns, situated in Far North Queensland, Australia, is a suitable destination to be used for the purposes of this study.

4.5 Sampling

The total population of this study are adventure tourists in Far North Queensland experiencing either whitewater rafting, sailing or bungy jumping. In order to gather information from a representation of the total population, a cross-sectional analysis is used where a number of participants are surveyed at one point in time, in this case the months of December 1999 and January, 2000.

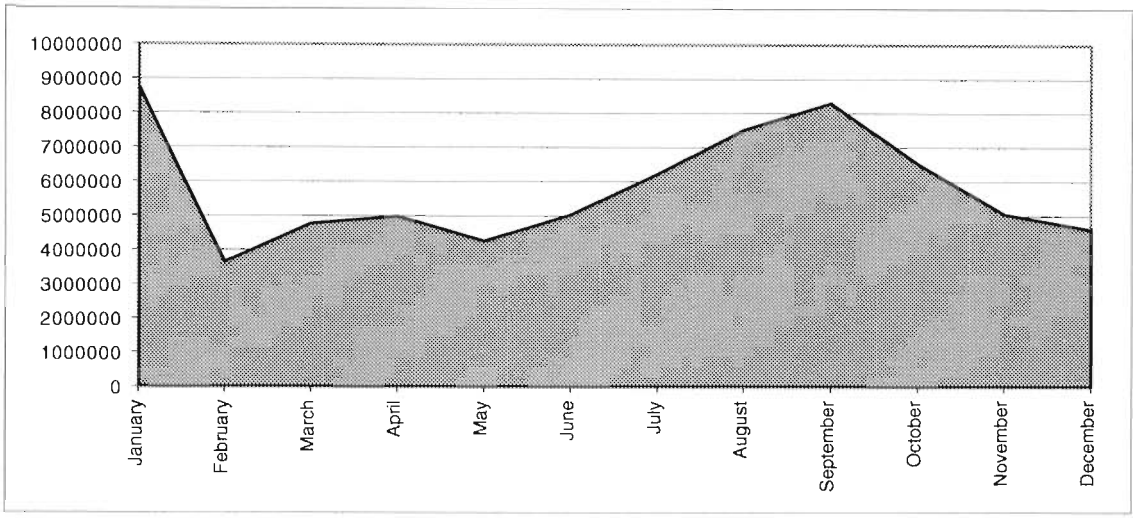
As a first step in sampling, a decision is made concerning domestic and international tourists. The conceptual framework (Chapter 3) and aims (Chapter 1) for this research have focused solely upon Australian domestic adventure tourists and inbound tourists who have English as a first language. This has alleviated the potential errors occurring as a result of respondents mis-interpreting the survey instrument and removed questions related to major cultural variations beyond nationality. Consequently, only those participants who have English as a first language spoken at home are included in the sampling frame.

To summarise, the sample for this field study are to be adventure tourists who have English as their first language, are partaking in either a whitewater rafting trip with Raging Thunder on the Tully River, a one day sailing trip aboard the Ocean Spirit from Cairns to Green Island or a bungy jump at the Cairns AJ Hackett bungy site within a consecutive 20 day period (less if the required sample size for that individual activity is reached before the 20 days have expired), during the months of December 1999 and January 2000.

4.6 Time Frame

Figure 4.1 shows that Queensland receives the largest number of visitor nights during the month of January. It was for this reason that the months of December 1999 and January 2000 were chosen to conduct the field work for this study. This time frame allowed 62 days, or roughly 20 days per activity for data to be collected.

Figure 4.1 Visitor Nights Spent in Queensland by Domestic Tourists in 1998. Source: Barry et al. 1999.



4.7 Questionnaire Design

Sekaran (1992, pg. 202) suggest that in designing a good questionnaire, attention should be given to the wording of the questions, categorisation, scaling and coding of the questions, and the general appearance of the questionnaire.

In following the conceptual framework as described in Figure 3.1, it can be seen that data needs to be collected both before (pre) and after (post) the participants experience the particular adventure tourism activity. As a result, a two-part survey instrument is required. In this study, the first part of the questionnaire will be referred to as "Part 1" and the second part as "Part 2".

The following sections of this chapter will describe how the questionnaire was developed, how it was pilot tested on two separate groups of people and then implemented in the field. The final version of the questionnaire can be seen in Appendices 13, 14 and 15. The reader may refer to this Appendix so that they can clearly follow the thirteen separate sections that make up Part 1 of the questionnaire and the two

sections in Part 2. Each of these individual sections refer to a category of data being collected.

4.7.1 Name or Indicator

As the respondents complete Part 1 of the survey prior to taking part in the adventure activity, and Part 2 after they have completed the adventure activity, a method of matching the two separate questionnaires needs to be devised. The following statement, which is written at the top of Part 1, explains to the respondent how this is to be done: "This is part one of a two part questionnaire. In order to match both parts together at the end of the day, please provide a fictional nick name or some other form of identification".

In the field, this method proved to be very effective. Importantly, less than 5% of the surveys collected were unusable due to the subject not remembering to write the same "nick name or some other form of identification" on Part 2 of the survey instrument.

4.7.2 Identification of Activity

A selection of six different adventure tourism activities are provided in Section 2. Respondents are asked to identify which activity they are about to engage in, by placing a tick in the box.

The main purpose of this section was to ease the subject into the task of filling out the questionnaire. Additionally, this ensures that completed questionnaires from one activity would not get mixed up with completed questionnaires from another activity. Additionally, each survey used colour coded paper.

4.7.3 Motivational Variables

Because motivational questions are tapping into the detailed and varied feelings that the respondent has of the experience, it was decided to carefully consider previous literature in selecting the variables to be used (refer to the literature review). The Blamey and Hatch (1998) study identified 13 variables used to describe separate motivations for

nature-based tours. These same 13 variables are used in this study having the advantage that comparisons may be made between the two studies.

Additionally, the questions "The reason I chose to do this activity was to experience risk" and "The reason I chose to do this activity was to do something adventurous" are included in order to identify those motivations unique to adventure tourism and enable comparison between risk and non-risk motivations. So as not to draw an unreasonable amount of attention to these two motivational variables, they have been placed 8th and 15th in the list of motivational variables. It was felt that if these two variables were placed in a more prominent position (for example, 1s^{t} and 2nd), and if more "risk" and "adventure" specific variables were used, that the subject would suspect the focus of the study and be tempted to offer a biased response. Given the younger nature of many participants it was considered possible that tourists about to embark on a public display of risk taking could be biased in regard to answering this question if the question was at all prominent. The 15 motivational variables chosen for this study can be seen in Table 4.1. The numbers associated with these variables (1, 2, 3 etc.) are the same numbers used to identify these variables in Chapters 6 and 7.

Table 4.1 Motivational Variables Used in the Study.	
Variable Number	Description
1	To see the natural beauty of the site I will be visiting*
2	To have an opportunity to be with friends and family*
3	To have a chance of seeing or experiencing something new*
4	To be close to nature*
5	To have exciting experiences*
6	To escape towns and cities*
7	To have an opportunity to rest and relax*
8	To experience risk
9	To see wildlife in detail*
10	To have an educational or learning experience*
11	To escape tourism masses and crowds*
12	To be physically active*
13	To do something that I can tell my friends about
14	To experience nature in a unique or different way
15	To do something adventurous
* *denotes variables used in the Blamey and Hatch (1998) study*	

To find out how participants feel about these motivations, a method of attitude measurement is required. As each research project may present unique research characteristics, Zikmund (1994) suggests seven questions that a researcher should answer in order to select an appropriate measurement scale. The first question is "is a ranking, sorting, rating, or choice technique best?" (Zikmund, 1994, p.314). As the hypotheses require information on the magnitude of a concept, for example, how dominant is the motivation "to experience risk", a rating measurement is required.

The second question to be asked in selecting a measurement scale, according to Zikmund, is "Should a monadic or comparative scale be used?" (Zikmund, 1994, p.314). As the hypotheses are considering the respondents attitude in relation to one single concept at a time, such as "motivation", a monadic scale is required.

"What type of category labels, if any, should be used?" (Zikmund, 1994, p.314), is the third question. In order to assume interval-scale data, a numerical scale, with uniform numbers to indicate metric scale positions, is required.

The fourth question on Zikmund's check list is "How many scale positions are needed?" (Zikmund, 1994, p.314). To allow a high level of sensitivity, seven scale positions have been chosen.

The next question is, should a balanced or unbalanced scale be chosen? This question refers to how the fixed alternatives to answering a question are selected and also relates to the previous question. Should a neutral or indifferent point be situated in the centre of the scale, or should the scale be balanced? Zikmund suggests that when responses are expected to be distributed at one end of the scale, for example, when it is expected that participants will be motivated to be physically active, an unbalanced scale may eliminate "end piling" (Zikmund, 1994, p. 315). Therefore, an unbalanced method is used where on a seven point scale, the fourth choice is "Agree", rather than "Undecided".

"Should respondents be given a forced-choice or a nonforced-choice scale?" (Zikmund, 1994, p.314). As participants have already made the decision to participate in the particular adventure activity, and therefore will have an attitude towards the concepts being measured, a forced-choice scale is recommended.

Lastly, Zikmund (1994) asks should a single measurement or an index measure be used. As the conceptual framework has identified individual attributes to be measured in order to address the research problem, a single measure will be used.

4.7.4 Expectation Variables

The next category of variables to be covered in the questionnaire design, relates to the expectations participants may have of the adventure experience they are about to take part in. The reason for measuring these expectations is so they can be compared to their post-event perceptions and from this, a level of satisfaction inferred.

In order to develop a survey instrument that can accurately measure adventure tourists expectations, a study has been made of the relevant questions used by other authors in

measuring the expectations that customers have of a service encounter. These can be seen in Appendices 2 through 8.

Five previous studies have the expectation variables grouped into distinct groups. Table 4.2 identifies the categories that are common to each of these studies. It can be seen that in the 5 studies shown, expectations participants have of the environment has been measured three times. This is especially relevant in that the studies which have used this category have all been associated with outdoor activities. Safety, economic, adventure and relaxation categories have all received two mentions in these studies, and so therefore need consideration in this particular study.

In light of the definition that adventure tourism contains inherent risk and the primary research aim is to determine the role of perceived risk in adventure tourism, the category of "safety" is considered to be a significant expectation. Client expectations of the equipment being in good order, of the staff being competent and of the staff recognising the individual client's level of competence, are examples of safety issues that can be measured. Accordingly, seven "safety" variables have been selected, based on previous studies (these are listed in Table 4.3).

As the clients' expectations of the amount of adventure involved in the experience are relevant to this study, five adventure variables have been selected. Additionally, four environmental, three relaxation and one economic variable have been included.

Table 4.3 describes the final 21 variables selected for this study to be used to measure pre-event expectations and for comparison with post-event perceptions. Once again, the numbers for each variable shown in Table 4.3 are used in Chapters 6 and 7.

Table 4.2 Factor Categories Used to Measure Expectations/Satisfaction of a Service Encounter.

Author/s	Factor Categories					
Hall, C.M., and McArthur, S.	Safety	Environment	Economic	Adventure		
Lousnbury, J.W., and Hoopes, P.	Relaxation and Leisure	Environment	Escape	Marriage and Family	Food and Lodging	
Morgan, D.	Safety	Environment	Economic	Adventure	Expectations	
Price, L., Arnould, E.J., and Tierney, P.	Provider Performance	Authentic Understanding	Provision of Extras	Pleasure	Negative	Satisfaction
Beard, J., Ragheb, M.G.	Psychological	Educational	Social	Relaxation	Physiological	Aesthetic

Table 4.3 Items used to Measure the Expectation Variable of an Adventure Tourism Experience.

Item Number	Item Description	Category
16	The staff will be friendly	Relaxation
17	The equipment will be in good order	Safety
18	The staff will be competent	Safety
19	The environment will be in a natural state	Environment
20	I will be capable of performing the tasks asked of me	Safety
21	I will get scared	Adventure
22	I will enjoy myself	Adventure
23	I will be physically challenged	Relaxation
24	The weather conditions will allow me to enjoy this activity	Environment
25	Other people in the group will not stop me from enjoying this activity	Environment
26	I will not require any additional insurance than I currently have	Safety
27	I will get value for money	Economic
28	I will be unfamiliar with the equipment being used	Safety
29	I will get injured	Safety
30	The staff will understand my level of competence in this particular activity	Safety
31	The place I visit today will not be too crowded	Environment
32	The risks associated with this activity will be unpredictable	Adventure
33	I will learn new skills	Adventure
34	I will have fun	Relaxation
35	A lot of unexpected things will happen to me today	Adventure
36	Wildlife will be visible	Environment

4.7.5 Information Sources

So that meaningful marketing initiatives may be developed, this section of the questionnaire asks respondents to identify which information source they used and how influential in their decision to participate in the adventure activity was that particular source. For example, knowing how particular groups of participants found out about a particular tour, and how influential that source was in choosing to do the activity, would suggest which methods of advertising are worthwhile for operators to invest in.

Once again, a seven point Likert scale was used, for the respondent to identify how they felt in relation to the information source used. In this case, box 1 was labelled "Not influential, box 4 "Influential", and box seven "Extremely influential".

4.7.6 Part 1 of the Questionnaire, Section1.6 – Prior Participation

It is critical to the conceptual framework to identify which participants have prior experience in each activity. This section asks the respondent to tick a "no" or "yes" box when asked "Have you done this particular activity before?". If the respondent ticks the "yes" box, they are then asked to write a number showing how many times they have done the activity previously.

4.7.7 History of Adventure Participation

To give further depth to the level of experience the participant has of not just their particular activity, but also other adventure tourism activities, twelve adventure activities that are able to be experienced within the Cairns region were selected from Table 1.1. The survey instrument asks participants to indicate which of these activities they have done before, as well as how many times they have done it. Additionally, three blank boxes are included to cover other possible activities.

4.7.8 Demographic Variables

In order to make distinctions within particular groups, participants need to be defined demographically. The demographic variables are given in the conceptual framework, as gender, age group, occupation, country of residence and income. These demographic measures are considered to be the most important in the existing literature.

4.7.8.1 Gender

Section 8 asks the respondent to indicate their gender by placing a tick in either the female or male box.

4.7.8.2 Age

Section 9 requires the respondent to indicate their age. In measuring the respondents age, it was decided that a ten year interval would be broad enough to allow reluctant respondents to answer honestly, while still providing enough relevant information. The categories selected to be used in this study are under 11, 11-20, 21-30, 31-40, 41-50, 51-60, and over 60.

4.7.8.3 Occupation

The categories used in Section 10 of the questionnaire to identify the occupation of the respondent are once again based on the Blamey and Hatch (1998) study. The 14 categories offered for the respondent provides a sufficiently wide range of occupations for the respondent to choose, and are comparable against Australian Census categories for comparison against the total population. These can be seen in Table 4.4.

Table 4.4 Items in Section 1.10 of the Questionnaire Used to Measure Occupation.
Item Description
Executive/manager
Farmer/grazier
Teacher/lecturer
Other professional
Technical
Skilled tradesperson
Clerical
Sales/personal service
Clerical
Sales/personal service
Driver/plant/machinery operator
Labourer
Student
Home duties
Independent means/retired
Unemployed

4.7.8.4 Country of Residence

Section 11 provides 11 boxes, each representing a different country (Australia, USA, Canada, UK and Ireland, Germany, Scandinavia, Switzerland, Other Europe, Japan, Other Asia, New Zealand and "Other") for the respondent to tick. These categories have once again been based on the Blamey and Hatch (1998) study. As mentioned earlier, only those participants who are either Australian citizens, or are international tourists with English as a first language, will be used in this study.

4.7.8.4.1 Australian Post-Codes

If the respondent is Australian, it would be helpful to know whereabouts in Australia they come from, as different marketing strategies may be need to be employed according to whether the participants are interstate or intrastate.

4.7.9 Insurance Cover

It would be helpful to know what type of (if any) insurance cover adventure tourism participants have, as this could be an indication of how risk averse they are. Section 13 of the questionnaire asks the respondent to identify their insurance cover by asking the question "what kind of insurance cover/s do you have?". The box then allows the respondent to write an open-ended response.

4.7.10 Name or Indicator

In order for Parts 1 and 2 of the questionnaire to be accurately matched at the end of the activity, respondents are requested to write the same name or indicator they used on Part 1.

4.7.11 Post-Event Variables

In the following sections of the second part of the survey instrument, a number of variable categories are developed. The first is designed to measure the emotional state the respondent is experiencing, the second is the category of post-event perception variable, used to compare with the pre-event expectation variables, in order to estimate inferred satisfaction. The final category in this part of the questionnaire is designed to collect information on the post-event intentions, including what type of adventure activity the respondent is likely to choose in the future, and if they would recommend the tour they have just done to anyone else.

4.7.11.1 Post-Event Emotions

In order to provide some useful insights as to the emotions that participants may report after the adventure tourism experience, the following eight emotions are suggested. It should be noted that these items are not included in the following analysis, but have been included as a possible link to further studies.

Table 4.5 Items in Section 2.1 of the Questionnaire Used to Measure Post-Event Perceptions of an Adventure Tourism Experience.

Item Number	Item Description
29	I was excited when doing this activity
30	I was interested when doing this activity
31	I felt alert when doing this activity
32	I was scared when doing this activity
33	I was distressed when doing this activity
34	I had to concentrate when doing this activity
35	I felt anxious when doing this activity
36	I was bored when doing this activity

4.7.11.2 Post-Event Perceptions

In the post-event phase of the data collection, the expectation variables measured in the pre-event phase must be compared against the respondents post-event perception. For example, the respondent is asked to indicate on the seven point Likert scale how they feel about the following statement, "Today, I expect that I will get scared". In the post-event phase, the same respondent is asked to indicate on the same scale, how they feel about the following statement, "I got scared". By comparing these two measurements from the Likert scale, it may be determined if the respondents expectations have been met, not met, or surpassed. The re-worded, pre-event expectation variables (into post-event perception variables) are shown in Table 4.6. A level of satisfaction may then be inferred, as identified in the conceptual framework. Accordingly, the 21 pre-event expectation variables were re-worded to be included in the post-event (Part 2) questionnaire. These can be seen in Table 4.6.

Table 4.6 Items in Section 2.2 of the Questionnaire Used to Measure Post-Event Perceptions of an Adventure Tourism Experience.

Item Number	Item Description	Category
37	The staff were friendly	Relaxation
38	The equipment was in good order	Safety
39	The staff were competent	Safety
40	The environment was in a natural state	Environment
41	I was capable of performing the tasks asked of me	Safety
42	I got scared	Adventure
43	I enjoyed myself	Adventure
44	I was physically challenged	Relaxation
45	The weather conditions did not stop me from enjoying this activity	Environment
46	Other people in the group did not stop me from enjoying this activity	Environment
57	Wildlife was visible	Environment
48	I got value for money	Economic
49	I was unfamiliar with the equipment being used	Safety
50	I got injured	Safety
51	The staff understand my level of competence in this particular activity	Safety
52	The place I visited today was not too crowded	Environment
53	The risks associated with this activity were unpredictable	Adventure
56	A lot of unexpected things happened to me today	Adventure
55	I had fun	Relaxation
54	I learnt new skills	Adventure
47	I don't require any additional insurance than I currently have	Safety

4.7.11.3 Post-Event Intentions Regarding Future Adventure Activities

In regard to the respondents post-event intentions, it is helpful to know if the respondent is going to seek a less risky or more risky adventure activity to do in the future, having just completed the activity of either whitewater rafting, sailing or bungy jumping. Similarly, it would be helpful to know if the respondent will not do the particular activity again, or if they do, whether they would do it without a commercial guide (on a recreational basis). Answers to these questions are gained in section 2.3 and can be seen below in Table 4.7.

Table 4.7 Items in Section 2.3 of the Questionnaire used to Measure Post-event Intentions – Future Adventure Activities.	
Item Number	Item Description
55	In the future I will seek a less risky adventure activity
56	In the future I will not do this activity again
57	In the future I will seek a more risky adventure activity
58	In the future I will do this activity by myself (no guide)

4.7.11.4 Post-Event Intentions Regarding Injury Insurance

Section 1.13 asks the respondent what kind of insurance cover/s they have. Having done the adventure activity, it would be useful to know if the respondent would prefer to pay for injury insurance before doing the activity again. This variable can be seen in Table 4.8.

Table 4.8 Items in Section 2.4 of the Questionnaire used to Measure Post-event Intentions – Injury Insurance.	
Item Number	Item Description
59	I would prefer to pay for injury insurance before doing this again

4.7.11.5 Post-Event Intentions Regarding Recommendations

The other "intentional" information that would be helpful in determining marketing strategies, would be knowledge about who the respondent would recommend the adventure tour to in the future. To collect information in this regard, respondents are asked to indicate how they feel about recommending the tour to people who are either fit enough, courageous enough, adventurous enough, not too old, or who can afford it. They are also asked to indicate if they would recommend the tour "to anybody". The variables used to gather this information can be seen in Table 4.9.

Table 4.9 Items in Section 2.5 of the Questionnaire used to Measure Post-event Intentions – Recommendations.	
Item Number	Item Description
60	I would only recommend this tour to people who are fit enough
61	I would only recommend this tour to people who are courageous enough
62	I would only recommend this tour to people who are adventurous enough
63	I would only recommend this tour to people who are not too old
64	I would only recommend this tour to people who can afford it
65	I would recommend this tour to anybody

4.8 Pilot Testing

So that any ambiguities or other problems within the questionnaire design may be identified prior to the field work being undertaken, a pilot test on a preliminary version of the questionnaire was conducted.

Zikmund (1994, p. 216) suggests that one way of conducting a pre-test of a survey instrument involves "screening the questionnaire with other research professionals". This was done with six research active academics from Victoria University, Australia.

One specific area that these colleagues were asked to consider when screening the survey instrument was criteria validity – does the "scale logically appear to be accurately reflecting what was intended to be measured" (Zikmund, 1994, p.290). The six colleagues agreed that each section of the survey instrument met Zikmund's statement above.

It was suggested that a higher completion rate would be attained by placing the demographic questions at the end of the survey and that shading be included on every second line in the survey instrument so that the Likert scale boxes could be easily related to the relevant question. These changes were made.

It was also suggested that a scripted speech be used to introduce the respondents to the task being asked of them. In this way the respondents from each of the three activities would receive exactly the same introduction, and minimise the chance of respondent error. This scripted speech is given in Appendix 12. In addition to the speech, a covering letter was requested by the Victoria University Ethics committee. This letter can be seen in Appendix 11, and further ensured that the respondent was fully aware of the purpose of the study.

After receiving feedback from the six academics of the survey design and subsequent changes made, the survey instrument was implemented within a simulated adventure tourism setting, to a group of 32 third year tourism students at Victoria University, Melbourne, Australia. It was explained to these students that the purpose of the exercise was to seek feedback on how the design of the instrument could be improved, if any errors could be detected as well as for completeness of the questions.

Ten of the students were asked to imagine they were on a bus travelling to a river where they would be whitewater rafting. Another 10 students were asked to imagine that they were sitting on yacht about to take them on a one day sailing trip and the final 12 students were asked to imagine that they were in the reception area of a bungy jump site about to have a bungy jump. The prepared script was read out to the group before they received the first part of the questionnaire. It took approximately 9 minutes for the students to fill out this part. The students were then given part two of the questionnaire, which took approximately 4 minutes to complete.

From this exercise, it was decided that in order for completed surveys not to get mixed up once in the field, different coloured paper should be used for each activity. Consequently, green was used for whitewater rafting, blue for sailing and yellow for bungy jumping.

4.9 Questionnaire Administration

This following section discusses how the questionnaire was administered to respondents in a voluntary way that assured them of their confidentiality, in the field during the months of December 1999 and January 2000. Some of the initial findings such as completion rates are discussed. The candidate personally administered the questionnaires for each of the three activities, thereby reducing the chance of internal error.

4.9.1 Questionnaire Administration – Whitewater rafting

The vast majority of passengers for the Tully River Raging Thunder whitewater rafting trip were collected by bus from various points within Cairns. These points included either the Raging Thunder office or the hotel or backpacker accommodation where the clients stayed. During the ensuing two hour bus trip to the river, the guides introduce themselves to the clients, have them fill in an indemnity form and familiarise them on how the day is to be run by showing them a 15 minute video on river safety. It was decided that the candidate be introduced with the guides as "Martin from Victoria University". The candidate wore a Victoria University name badge, tee shirt and cap so that he may be easily identified by the participants. The candidate was allowed to use the microphone on the bus to deliver the rehearsed script as described in Appendix 22, and then hand out Part 1 of the survey instrument. This was done prior to the company's indemnity form being administered and the participants seeing the safety video.

Part 2 of the survey was administered at the start of the return bus journey to Cairns. Once these were completed, the author was able to match parts 1 and 2 by identifying the fictional nick names or other forms of identification.

Very few respondents declined to fill out the questionnaire. No more than 10 people, or less than 5% of those approached, did not attempt to fill out the questionnaire. Table 4.10 shows the nine days in which data was collected and that a final number of 242 completed questionnaires were collected. An additional 12 questionnaires had been

collected but were considered unusable because the respondent did not use the same name on parts 1 and 2, or did not complete one of the parts.

Table 4.10 Days Questionnaires were Implemented for Whitewater Rafting.

Date	Number of Respondents	Cumulative Percentage
10.01.00	27	11.2
08.12.99	24	21.1
09.01.99	17	28.1
11.12.99	52	49.6
14.12.99	27	60.7
15.12.99	26	71.5
16.12.99	17	78.5
17.12.99	30	90.9
18.12.99	22	100.0
Total	242	

4.9.2 Questionnaire Administration - Sailing

The yacht being used in this study, Ocean Spirit, departed from Cairns at 8:00 am. The clients were asked to take a seat in the rear section of the yacht so that they could all be spoken to as a group. The participants were introduced to the crew on board the yacht (usually by the skipper), and it was decided that the candidate of this study be introduced at the same time. During the time in which the crew are busy throwing lines and generally preparing the vessel for sailing, Part 1 of the survey was implemented in the same manner as was done for the whitewater rafting. At the end of the day, as the yacht passed the first channel markers (approximately 20 minutes from docking), Part 2 of the survey was implemented.

Matching of parts A and B was done at the end of each day in case the same nick name was used by different respondents on different days. Table 4.11 shows that over a period of thirteen days, a total of 181 usable questionnaires were collected. As with the whitewater rafting, very few respondents, no more than 10, declined to take part in the study.

Table 4.11 Days Questionnaires were Implemented for Sailing.

Date	Number of Respondents	Cumulative Percentage
02.01.00	11	6.1
03.01.00	20	17.1
04.01.00	8	21.5
06.01.00	20	32.6
07.01.00	20	43.6
08.01.00	23	56.4
09.01.00	17	65.7
10.01.00	20	76.8
11.01.00	7	80.7
22.12.99	7	84.5
23.12.99	5	87.3
26.12.99	5	90.1
30.12.99	18	100.0
Total	181	

4.9.3 Questionnaire Administration – Bungy Jumping

Participants of the bungy jumping arrive at the jump site by one of two means. The first is by the AJ Hackett Bungy Bus, the second is by private vehicle. Once they arrive at the site, participants must make their way up to the reception desk where they can pay money for a jump, sign the necessary paper work and get weighed. Once this was done, the staff member at the reception desk would direct the participant to the author of this study who had a desk set up in the reception area. This "directing of participants " to the author was sometimes done on a single participant basis, or in small groups (no more than six persons at a time). The bungy participants were given the same rehearsed script explaining the study before being given Part 1 of the questionnaire.

Once the participant completed their jump, they were directed by the raft guide (this is the guide who collects the dangling participant, post jump, and unties the bungy cord from their ankles) to the candidate for completion of Part 2. In this manner, 189 successfully completed questionnaires were collected over a period of ten days (refer to Table 4.12). As with the previous two activities, very few (less than ten) people advised the candidate that they did not wish to complete the questionnaire.

Table 4.12 Days Questionnaires were Implemented for Bungy Jumping.

Date	Number of Respondents	Cumulative Percentage
13.01.00	18	9.5
15.01.00	17	18.5
16.01.00	25	31.7
18.01.00	16	40.2
19.01.00	24	52.9
20.01.00	18	62.4
21.01.00	22	74.1
25.01.00	11	79.9
26.01.00	20	90.5
27.01.00	18	100.0
Total	189	

5 Chapter 5: Preliminary Analysis

Chapter 4 shows that a total of 612 usable questionnaires were collected during the months of December 1999 and January 2000. The data from these questionnaires were entered by the candidate using Microsoft Excel software. Once the data had been fully entered, it was copied to the statistical software package named SPSS V10.0 for further analysis. This current chapter firstly conducts tests on the data for errors and reliability before conducting a descriptive analysis of the entire sample (n = 612). From this, Hypothesis 1 will be tested to determine if the degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on the adventure tourism activity selected. It is critical to test this hypothesis in this preliminary analysis chapter, as it will determine wether the sample is significantly different and can be tested as different groups of adventure tourists, or alternatively, be regarded as one homogenous group. This same logic is followed when Hypothesis 2 (the degree to which adventure tourists want to undertake a perceived degree of risk, will vary depending on the level of prior experience in the adventure tourism activity selected) and Hypothesis 3 (the degree to which adventure tourists want to undertake a perceived degree of risk, will vary depending on their country of origin) are tested within this chapter.

5.1 Error Checking

Of the 612 usable questionnaires, it can be seen in Table 4.11 that 429 of the respondents had answered every question asked of them. However, it can be seen in Table 5.1 that a number of respondents did not answer all the questions relating to their motivations, pre-event expectations and post-event perceptions, leaving blank responses. 127 respondents did this on only one occasion and only two did this on a maximum of seven occasions.

Table 5.1 Number of Times a Respondent Did Not Answer Questions.

Number of times a Respondent did not answer questions	Number of respondents in each category	Percentage of respondents in each category
0 (none)	429	70.1%
1 (Once)	127	20.8%
2 (Twice)	37	6.0%
3 (Three times)	8	1.3%
4 (Four times)	5	.8%
5 (Five times)	3	.5%
6 (Six times)	1	.2%
7 (Seven times)	2	.3%
Total	612	100%

Blank responses were encountered on 190 of the 34,884 (57 variables x 612 respondents) responses, or for 0.5446 percent, of the 57 variables measuring the motivations, pre-event expectations and post-event perceptions. As no variable had more than eight blank responses, or 1.3072% of the total responses for that variable, all variables were considered worthy of inclusion in the study. This can be seen in Tables 5.2, 5.3 and 5.4. According to Sekaran (1992), one way to handle blank responses is to assign the mean value of the responses for all those who have responded to that particular item. This was done for the 190 blank responses because of their small number and small influence on the overall measures. It can be noted that these variables have been allocated numbers. This has been done so that the variable number may be referred to in tables or discussion, when appropriate, instead of a full variable description.

Table 5.2 The Number of Blank Responses for Each Motivational, Pre-Event Expectation and Post-Event Perception.

Item	Number of Blank Responses	Percentage of Blank Responses for the Variable
1. to see the natural beauty of the site I will be visiting	2	0.3268%
2. to have an opportunity to be with friends and family	8	1.3072%
3. to have a chance of seeing or experiencing something new	2	0.3268%
4. to be close to nature	2	0.3268%
5. to have exciting experiences	7	1.1438%
6. to escape towns and cities	2	0.3268%
7. to have an opportunity to rest and relax	6	0.9804%
8. to experience risk	3	0.4902%
9. to see wildlife in detail	2	0.3268%
10. to have an educational or learning experience	5	0.8170%
11. to escape tourism masses and crowds	5	0.8170%
12. to be physically active	1	0.1634%
13. to do something I can tell my friends about	3	0.4902%
14. to experience nature in a unique or different way	2	0.3268%
15. to do something adventurous	3	0.4902%

Table 5.3 The Number of Blank Responses for Each Pre-Event Expectation.

Item	Number of Blank Responses for the Variable	Percentage of Blank Responses for the Variable
16. the staff will be friendly	3	0.4902%
17. the equipment will be in good order	0	0.0000%
18. Staff will be competent	0	0.0000%
19. the environment will be in a natural state	1	0.1634%
20. I will be capable of performing tasks asked of me	7	1.1438%
21. I will get scared	4	0.6536%
22. I will enjoy myself	5	0.8170%
23. I will be physically challenged	3	0.4902%
24. The weather conditions will allow me to enjoy this activity	1	0.1634%
25. other people in the group will not stop me from enjoying this activity	0	0.0000%
26. I will not require any additional insurance than I currently have	5	0.8170%
27. I will get value for money	4	0.6536%
28. I will be unfamiliar with equipment being used	7	1.1438%
29. I will get injured	1	0.1634%
30. The staff will understand my level of competence in this particular activity	5	0.8170%
31. The place I visit today will not be too crowded	3	0.4902%
32. The risks associated with this activity will be unpredictable	1	0.1634%
33. I will learn new skills	1	0.1634%
34. I will have fun	0	0.0000%
35. A lot of unexpected things will happen	0	0.0000%
36. Wildlife will be visible	6	0.9804%

Table 5.4 The Number of Blank Responses for Each Post-Event Perception.

Item	Number of Blank Responses for the Variable	Percentage of Blank Responses for the Variable
37. The staff were friendly	1	0.1634%
38. The equipment was in good order	4	0.0000%
39. The staff were competent	3	0.0000%
40. The environment was in a natural state	0	0.0000%
41. I was capable of performing tasks asked of me	4	0.0000%
42. I got scared	3	0.0000%
43. I enjoyed myself	6	0.0000%
44. I was physically challenged	5	0.0000%
45. The weather conditions allowed me to enjoy this activity	6	0.0000%
46. The other people in the group did not stop me from enjoying this activity	4	0.0000%
47. I don't require any additional insurance than I currently have	5	0.0000%
48. I got value for money	4	0.0000%
49. I was unfamiliar with the equipment being used	3	0.4902%
50. I got injured	3	0.4902%
51. The staff understood my level of competence in this particular activity	5	0.8170%
52. The place I visited today was not too crowded	3	0.4902%
53. The risks associated with this activity were unpredictable	7	1.1438%
54. I learnt new skills	4	0.6536%
55. I had fun	3	0.4902%
56. A lot of unexpected things happened	2	0.3268%
57. Wildlife was visible	5	0.8170%

5.2 Reliability

One method for checking the consistency of respondents' responses to all items in a survey is Cronbach's coefficient alpha (Sekaran, 1992, p. 174). An alternative method for testing whether measures are free from error, is the split-half technique (Zikmund, 1994, p.288). The Cronbach alpha analysis was done using SPSS for Windows, V10.0.5.

As the instrument used in this study is focused on four variable sets, (motivations, expectations, post-event perceptions and post-event intentions), four separate Cronbach alphas were computed. Computation of the total instrument reliability should not be performed in such a case as it is not possible to infer the causal-effect of the first dimension on the other three, although there might be correlation between all of these dimensions.

Table 5.5 displays the outcome of this analysis. The Cronbach coefficient alpha reading for the 15 motivational items was .74. This suggests that the instrument measured the overall true scores for the respondents motivations with 74% accuracy and 26% of random error. For exploratory research, it is suggested that an acceptable level of reliability is between 50% and 60%. Therefore, the reading of 74% is acceptable.

The 21 expectation variables recorded the highest Cronbach coefficient alpha (79%), the 21 post-event intention variables the second highest (76%) and the 11 post-event intention variables the lowest at 59%. These are all acceptable levels of reliability.

The spit-half reliability results show slightly lower readings when one half of the dimension is compared against the other half. Motivations and post-event intentions are the lowest in this reliability test. Expectations and post-event perceptions recorded the highest. Overall, it can be said that the survey instrument used in this study to measure four different dimensions is of an acceptable level of reliability.

Table 5.5 Reliability Analysis of the Survey Instument.

Variable	Number of Cases	Number of Items	Coefficient Alpha	Split-half Reliability	
				Part 1	Part 2
Motivations	612	15	.7400	.5071	.6225
Expectations	612	21	.7926	.7771	.6081
Post-Event Perceptions	612	21	.7626	.6391	.6296
Post-Event Intentions	612	11	.5944	.3215	.5727

5.3 Descriptive Analysis

Initially, the total group of 612 respondents will be described as one group. This will be presented in the order of the various sections as they appear in parts 1 and 2 of the questionnaire. The various sections, as well as the number of items in each section of the pre-event and post-event questionnaire, are described below in Table 5.6.

Table 5.6 List of Variable Categories to be Described in Chapter 5.			
	Section	Category	Number of items
Part 1 "pre-event"	5.4.1	Identification of activity	3
	5.4.2	Motivational variables	15
	5.4.3	Expectation variables	21
	5.4.4	Information sources	14
	5.4.5	Prior participation in the adventure activity being undertaken	1
	5.4.6	History of participation in other adventure activities	15
	5.4.7.1	Demographic descriptor: GENDER	1
	5.4.7.2	Demographic descriptor: AGE	1
	5.4.7.3	Demographic descriptor: OCCUPATION	1
	5.4.7.4	Demographic descriptor: COUNTRY OF RESIDENCE	1
	5.4.7.4.1	Post-code of Australian residents	1
	5.4.7.5	Demographic descriptor: INCOME	1
	5.4.8	Insurance cover held by participant	1
Part 2 "post-event"	5.4.9	Post-event emotions	8
	5.4.10	Post-event perceptions	21
	5.4.11	Post-event intentions regarding the respondent undertaking other adventure activities in the future	4
	5.4.12	Post-event intentions regarding injury insurance	1
	5.4.13	Post-event intentions regarding recommendations	6

5.4 Descriptive Analysis of the Whole Group

As discussed above, the first part of this chapter examines the entire sample of 612 adventure tourism respondents as one group. By doing this, a general understanding of the whole group may be gained.

5.4.1 Whole Group by Activity

Table 5.7 shows that most of the respondents (242) were taking part in whitewater rafting. The table also shows that this represents 39.5% of the total sample. Bungy jumping respondents numbered 189 (30.9% of the total sample) and sailing participants 181 or 29.6% of the total sample. This represents a fairly even spread of respondents across each of the three activities.

Table 5.7 Frequency Table by Activity.

	Frequency	Percent	Valid Percent	Cumulative Percent
Rafting	242	39.5	39.5	39.5
Bungy	189	30.9	30.9	69.1
Sailing	181	29.6	29.6	100.0
Total	612	100.0	100.0	

5.4.2 Whole Group by Motivations

Table 5.8 shows the measures of central tendency and dispersion for the motivation variables in the questionnaire. It can be seen that the table lists the variable number (the variable descriptions can be seen in Table 4.1) and the total number of respondents (612). The range refers to "the distance between the smallest and the largest values of a frequency distribution" (Zikmund, 1994, p.391). As a 1-7 Likert style scale was used for each of the variables, the range is 6 and the minimum and maximum scores are 1 and 7 respectively.

The mean, as a measure of central tendency, is shown as are the standard deviations and variances. As all of the standard deviations are within one standard deviation of the mean, it can be said that the data for each of the variables is normally distributed.

It can be seen in Table 5.8 and Figure 5.1 that variable number 5 (to have exciting experiences) is the motivation that has the highest mean score (6.10). The next three motivational variables that the respondents agreed with as reflecting their reason for choosing the activity were: "to do something adventurous", "to have a chance of seeing or experiencing something new" and "to do something that I can tell my friends about". The other four motivational variables the respondents agreed with to some extent on were: "to be physically active", "to experience risk", "to see the natural beauty of the place I will be visiting" and "to experience nature in a unique or different way".

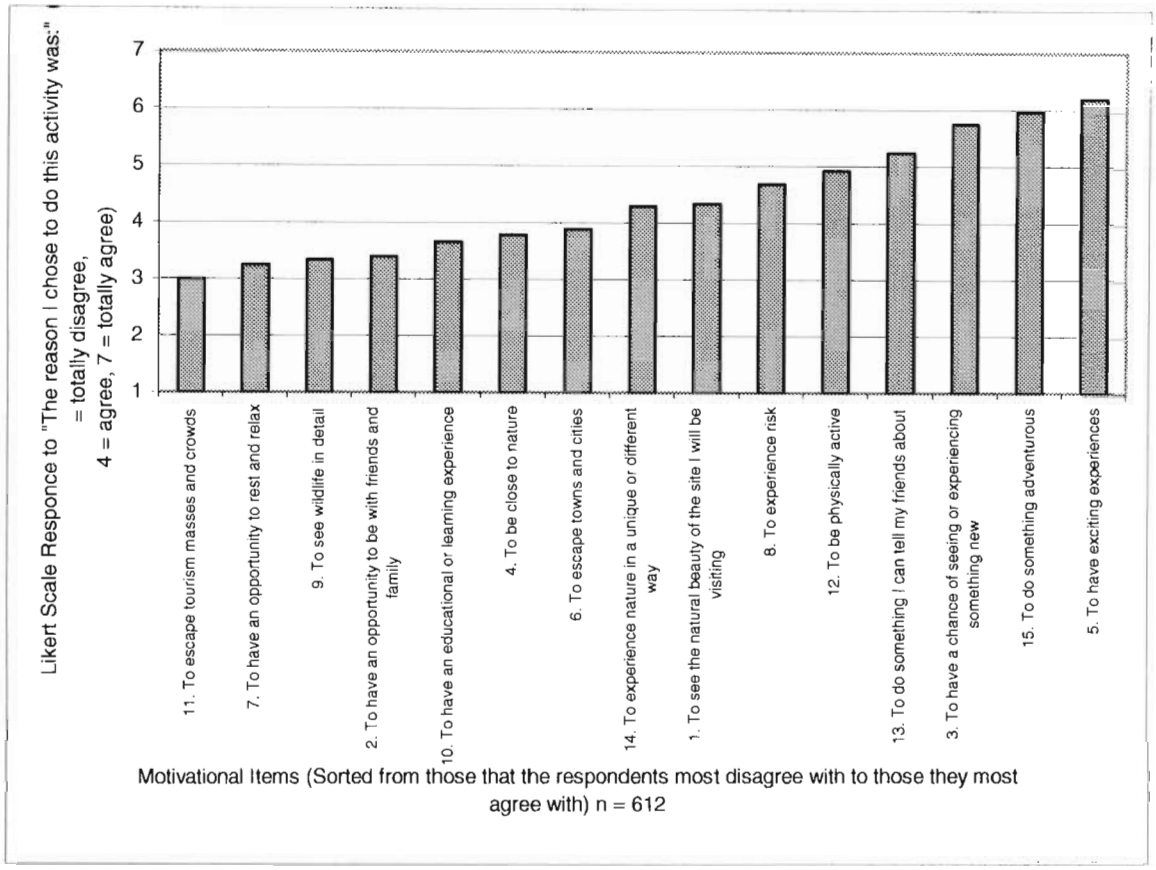
It can also be seen in Figure 5.1 that on average, the respondents did not "totally disagree" with any of the motivational variables. However, a mean score of below four

on the Likert scale, indicates that the respondents disagree that the motivational variable identified the reason for them choosing to participate in the adventure activity. Generally speaking, the variables listed below 4 on the Likert scale are social and escape variables. The variables the adventure tourists agreed with involve adventure and risk, while in the middle is an environmental interest that is agreed with or close to being agreed with. These findings are interesting for marketing purposes in that it is valuable to know that the pursuit of risk and its associated elements can rate highly as motivations, including across a range of tourist activities.

Table 5.8 Descriptive Analysis of Motivational Items.

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
1	612	6	1	7	4.33	2.04	4.149	-.091	.099	-1.147	.197
2	612	6	1	7	3.39	2.03	4.140	.388	.099	-.991	.197
3	612	6	1	7	5.75	1.74	3.040	-1.275	.099	.591	.197
4	612	6	1	7	3.78	1.95	3.807	.170	.099	-1.007	.197
5	612	6	1	7	6.10	1.32	1.747	-1.710	.099	2.467	.197
6	612	6	1	7	3.88	2.08	4.310	.162	.099	-1.182	.197
7	612	6	1	7	3.24	2.26	5.098	.537	.099	-1.182	.197
8	612	6	1	7	4.69	2.22	4.910	-.448	.099	-1.227	.197
9	612	6	1	7	3.33	2.06	4.299	.467	.099	-1.020	.197
10	612	6	1	7	3.66	1.95	3.794	.254	.099	-.973	.197
11	612	6	1	7	3.00	1.87	3.481	.747	.099	-.377	.197
12	612	6	1	7	4.93	1.78	3.162	-.484	.099	-.627	.197
13	612	6	1	7	5.24	1.85	3.411	-.735	.099	-.506	.197
14	612	6	1	7	4.28	2.00	4.020	-.149	.099	-1.095	.197
15	612	6	1	7	5.97	1.52	2.307	-1.471	.099	1.365	.197

Figure 5.1 Ranked Motivational Items for the Whole Group (n = 612)



5.4.3 Whole Group by Pre-Event Expectations

The primary reason for measuring the respondent's pre-event expectations is so that they can be compared with the respondent's post-event perceptions. From this, it can be determined if their expectations have been met, not met, or surpassed. As a result of this information, the researcher may infer a level of satisfaction or dissatisfaction. This satisfaction analysis is to be conducted in chapter 6 as part of the hypotheses testing. The purpose of this part of the analysis is to initially gain a general understanding of these preliminary results, including the expectations that participants have of an adventure tourism experience.

Table 5.9 shows the measures of central tendency for the 21 pre-event expectation items. Figure 5.2 shows these pre-event expectations in ranked order (from those that the respondent most agrees with, to those that they least agree with). This figure shows that

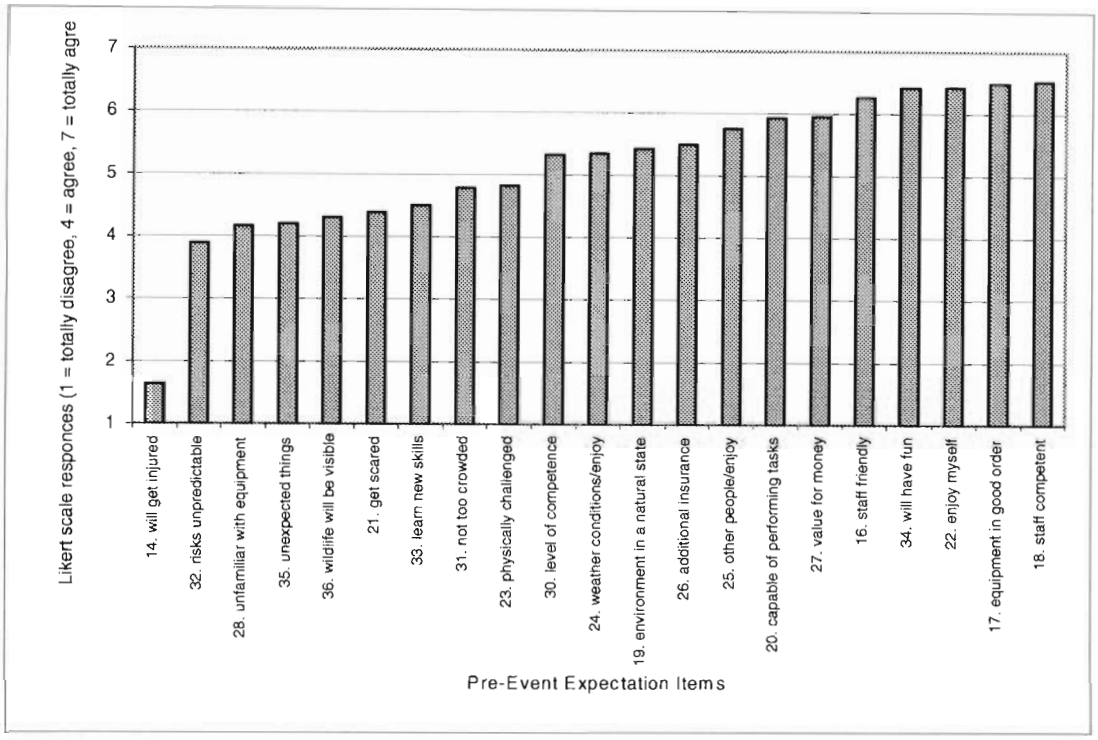
respondents failed to agree with only two of the 21 items. These include the expectation that the respondent will get injured, and that the risks associated with the activity will be unpredictable. Consequently, at the same time as seeking risk, the respondents also do not see anything happening to them. This is consistent with the literature review.

The items that, on average, the 612 respondents agree with the most, are that the staff will be competent and the equipment will be in good order. Although the respondents accept that they may "get scared" (mean equal to 4.39), they expect a safe and an enjoyable time.

Table 5.9 Descriptive Analysis of Pre-Event Expectation Items.

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
16	612	6	1	7	6.26	1.17	1.379	-1.648	.099	2.281	.197
17	612	6	1	7	6.50	1.08	1.164	-2.563	.099	6.966	.197
18	612	6	1	7	6.53	1.06	1.120	-2.771	.099	8.391	.197
19	612	6	1	7	5.43	1.59	2.514	-.712	.099	-.288	.197
20	612	6	1	7	5.93	1.36	1.845	-1.094	.099	.397	.197
21	612	6	1	7	4.39	2.23	4.978	-.190	.099	-1.377	.197
22	612	6	1	7	6.43	1.11	1.238	-2.367	.099	5.885	.197
23	612	6	1	7	4.82	1.95	3.812	-.416	.099	-.980	.197
24	612	6	1	7	5.35	1.58	2.497	-.561	.099	-.555	.197
25	612	6	1	7	5.75	1.54	2.382	-1.115	.099	.501	.197
26	612	6	1	7	5.49	1.82	3.324	-.965	.099	-.073	.197
27	612	6	1	7	5.96	1.33	1.768	-1.071	.099	.286	.197
28	612	6	1	7	4.17	2.23	4.961	-.023	.099	-1.433	.197
29	612	6	1	7	1.65	1.18	1.391	2.610	.099	7.732	.197
30	612	6	1	7	5.32	1.60	2.549	-.564	.099	-.496	.197
31	612	6	1	7	4.78	1.69	2.860	-.182	.099	-.790	.197
32	612	6	1	7	3.89	2.03	4.128	.149	.099	-1.146	.197
33	612	6	1	7	4.51	1.87	3.501	-.202	.099	-.897	.197
34	612	6	1	7	6.43	1.07	1.139	-2.296	.099	5.769	.197
35	612	6	1	7	4.20	1.92	3.699	.001	.099	-1.072	.197
36	612	6	1	7	4.30	1.94	3.766	.000	.099	-1.076	.197

Figure 5.2 Ranked Pre-Event Expectations for the Whole Group (n = 612)



5.4.4 Whole Group by Information Sources

Section five of the survey instrument asks the respondent to firstly identify which of the 14 information sources listed they actually used in finding out about their tour. Secondly, the respondent is asked to show how influential that source was in them making their decision to participate. The largest number of respondents (196) used "from a brochure at a hotel/motel or backpacker accommodation" as a source of information, followed by word of mouth from a friend. This can be seen in Figure 5.3. It is interesting to see that in Figure 5.4 that word of mouth from a friend or family member is most influential. The two information sources that are not influential are from radio or TV seen in Cairns and newspaper or magazine stories read in Cairns. This information is extremely valuable in determining the method of distributing marketing messages from the adventure tour operators to the client.

Brochures well located for tourist access are highly significant as are satisfied customers who are most likely to recommend to other potential customers. Indeed, discount

vouchers to be given to friends may be effective, especially where there is competition between providers of similar experiences.

Figure 5.3 Number of Respondents who Identified Information Sources Used.

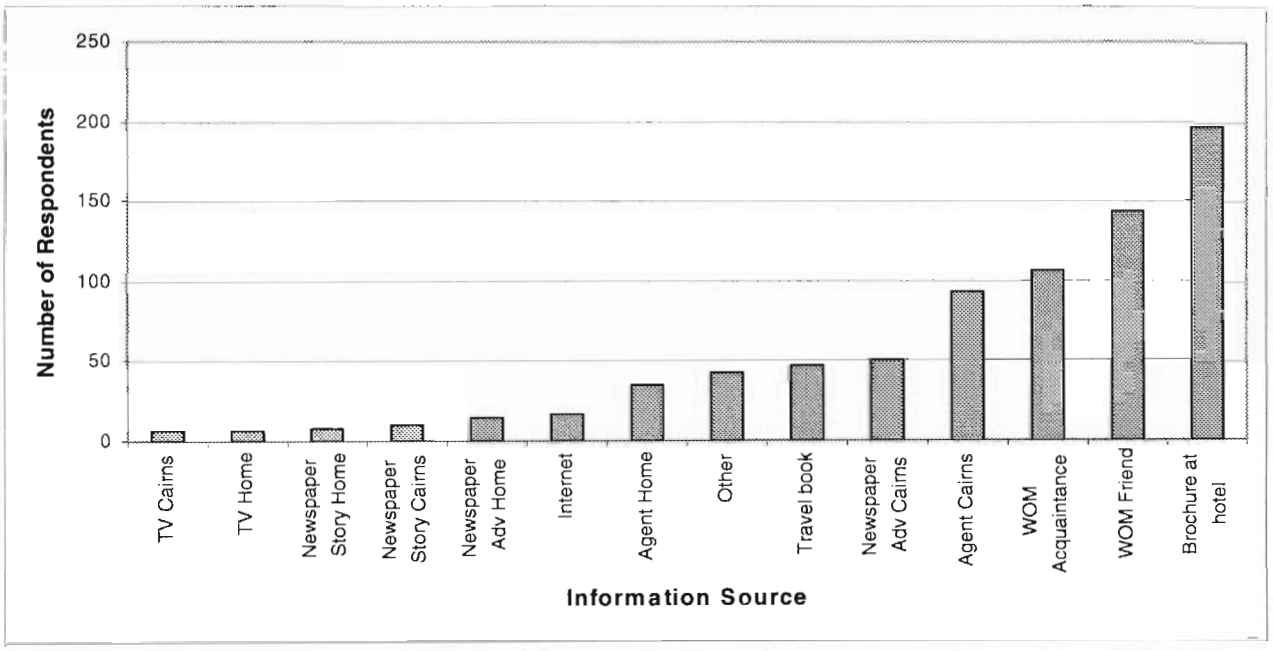
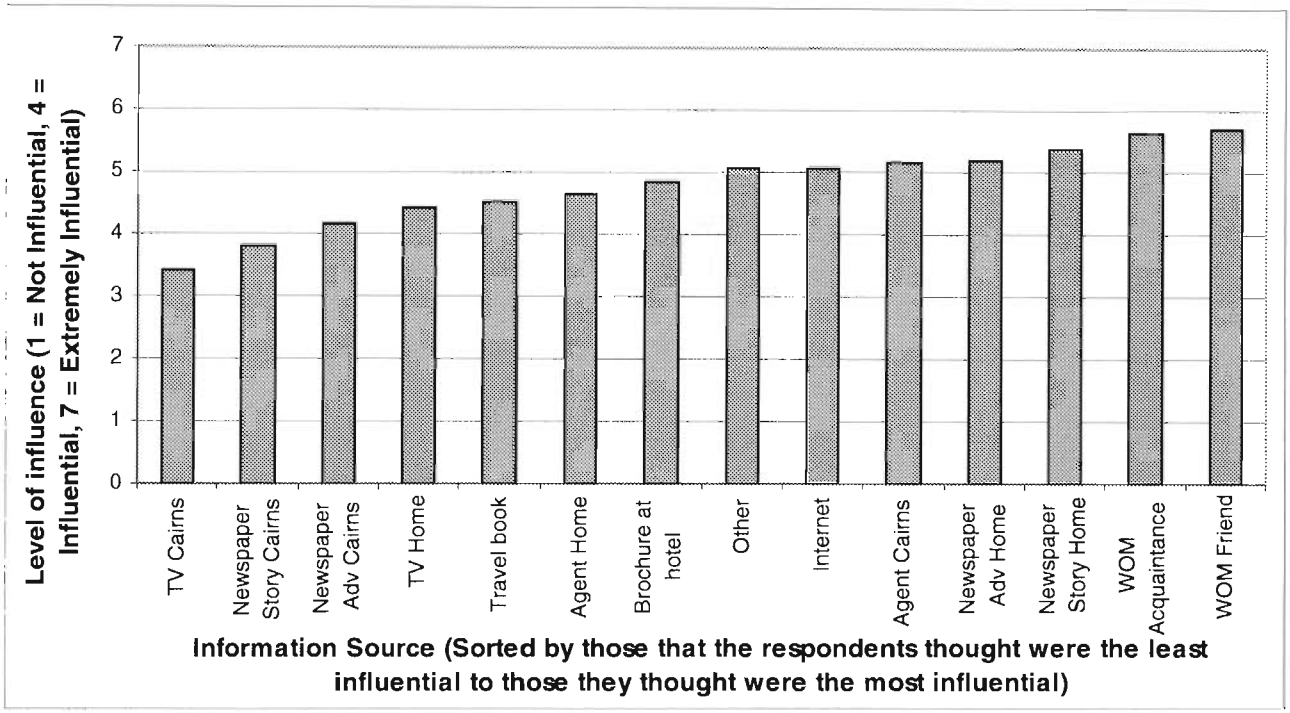


Figure 5.4 How Influential Each Information Source Was for the Whole Group (n = 612)



5.4.5 Whole Group by Prior Experience

The conceptual framework in Figure 3.2 shows that the respondents may be divided into two distinct groups depending on whether they have had any prior experience in the activity. Table 5.10 shows the size of these two groups. It can be seen that 40.4% of the total group (247 respondents) have previously participated in their relevant activity. It can be seen in Table 5.11 that the mean number of times that the respondents have done the activity before is 3.34 times. Table 5.12 shows that 91.2% of the respondents had done the activity 5 times or less. Figure 5.5 shows the graphical representation of these findings.

Table 5.10 Previous experience in the activity for the whole group (n = 612).

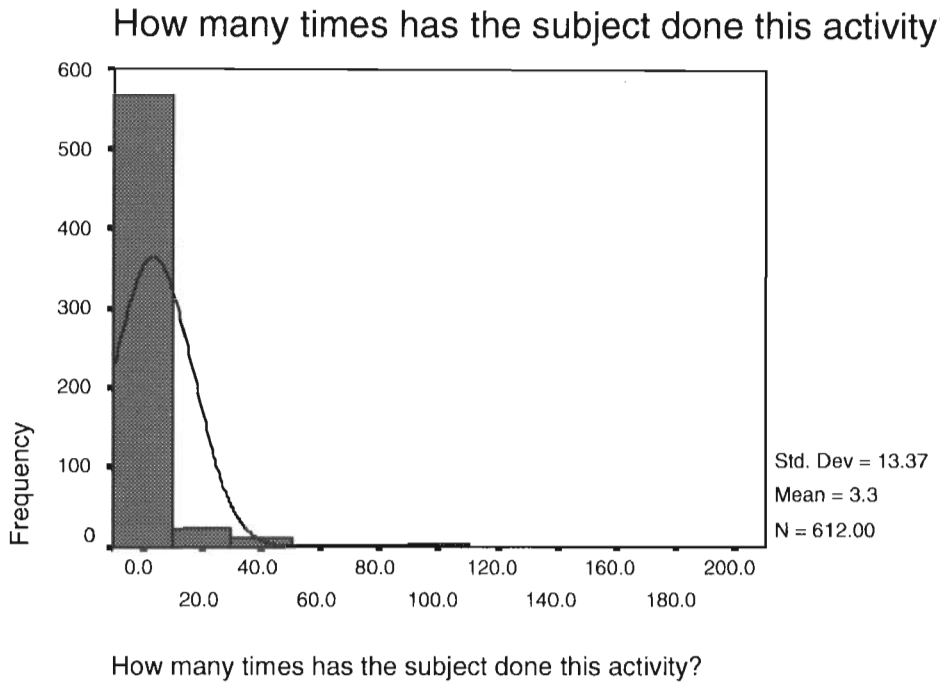
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No, the subject has never done this activity before	365	59.6	59.6	59.6
	Yes, the subject has done this activity before	247	40.4	40.4	100.0
	Total	612	100.0	100.0	

Table 5.11 How many times has the subject done the activity before?

N	Valid	612
	Missing	0
Mean		3.34
St. Deviation		13.37
Variance		178.63
Range		200
Minimum		0
Maximum		200

Table 5.12 How many times has the subject done the activity before? (n = 612)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No amount of times entered	363	59.3	59.3	59.3
	1	93	15.2	15.2	74.5
	2	42	6.9	6.9	81.4
	3	27	4.4	4.4	85.8
	4	17	2.8	2.8	88.6
	5	16	2.6	2.6	91.2
	6	6	1.0	1.0	92.2
	7	1	.2	.2	92.3
	8	1	.2	.2	92.5
	9	2	.3	.3	92.8
	10	9	1.5	1.5	94.3
	12	2	.3	.3	94.6
	15	5	.8	.8	95.4
	20	7	1.1	1.1	96.6
	25	1	.2	.2	96.7
	30	8	1.3	1.3	98.0
	40	2	.3	.3	98.4
	43	1	.2	.2	98.5
	50	2	.3	.3	98.9
	70	1	.2	.2	99.0
	80	1	.2	.2	99.2
	100	4	.7	.7	99.8
	200	1	.2	.2	100.0
	Total	612	100.0	100.0	

Figure 5.5 How many times has the subject done the activity before? (n = 612)



5.4.6 Whole Group by Past Experience in Adventure Activities

Section 7 of the questionnaire is designed to collect information on the types of adventure activities the respondents have done in the past, as well as the number of times they have done the activities. The adventure activity that most respondents (485) recorded as having done before was snorkelling (refer to Figure 5.6). Of the listed adventure activities, ballooning had the least amount of prior participation, with only 67 respondents.

The "other" category has been included to allow respondents to describe an adventure activity they have done before, but was not on the list of adventure activities to choose from. Appendix 17 shows that these "other" adventure activities range from four-wheel driving to white-water canoeing. It is interesting that the 13 adventure activities identified by the respondents in the third "other" category (boogie boarding, bush scrambling, cycling, motor biking, motorcycling, mountain biking, off roading, parasailing, rally driving, snow boarding, snow shoeing, water skiing and whitewater

canoeing) are also the activities that rank as the highest in regard to the number of times they have been done in the past. This can be seen in Figure 5.7.

Figure 5.6 Adventure Activities Done by the Respondents in the Past (n = 612).

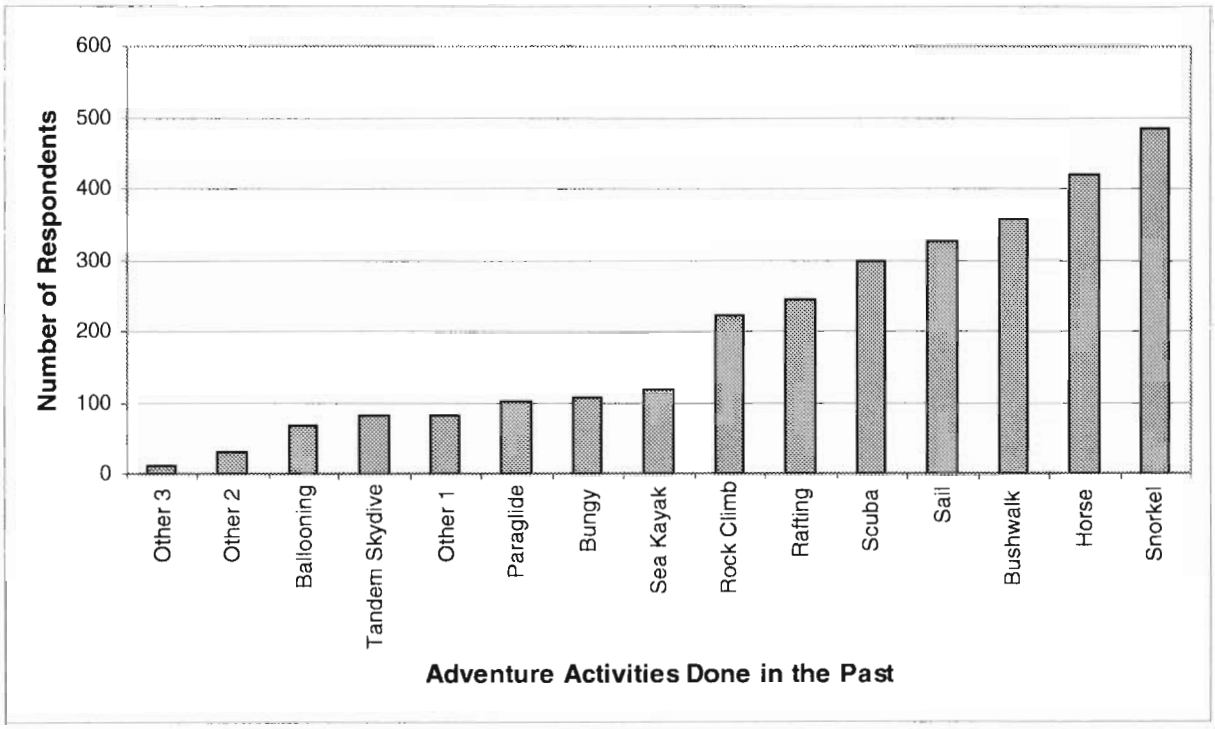
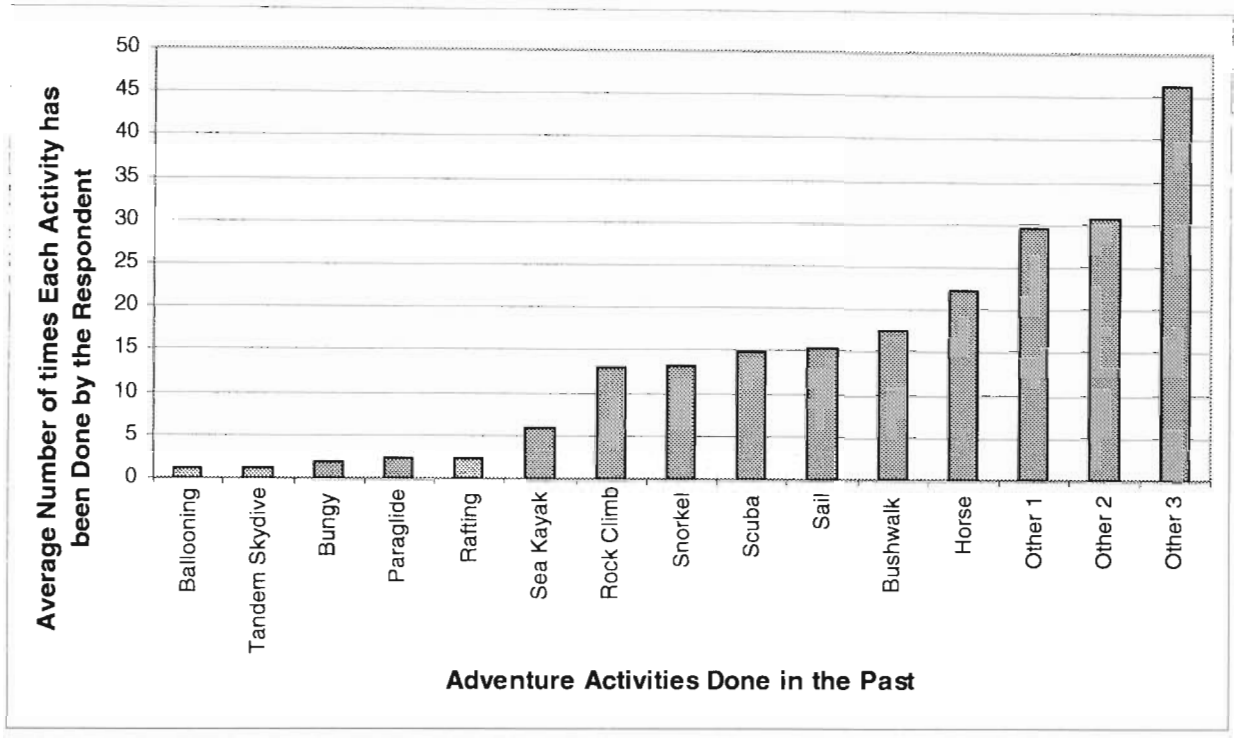


Figure 5.7 Number of Times Each Adventure Activity has been Done by the Respondent in the Past (n = 612).



5.4.7 Whole Group by Demographic Variables

The following five sections of this study show the gender, age, occupation, country of residence, post code (if they are Australian residents) and income for all 612 participants.

5.4.7.1 Whole Group by Gender

Table 5.13 and Figure 5.8 show a slight bias towards males being involved in the three adventure tourism activities included in this study. A total of 348 males, making up 56.9% of the total group are represented in this category. When compared to the 1996 Queensland census data (Australian Bureau of Statistics) shown in Table 5.14, it can be seen that the sample group are slightly more male dominated.

Table 5.13 Gender of whole group – Frequencies (n = 612).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	264	43.1	43.1	43.1
	Male	348	56.9	56.9	100.0
	Total	612	100.0	100.0	

Figure 5.8 Gender of the whole group (n = 612)

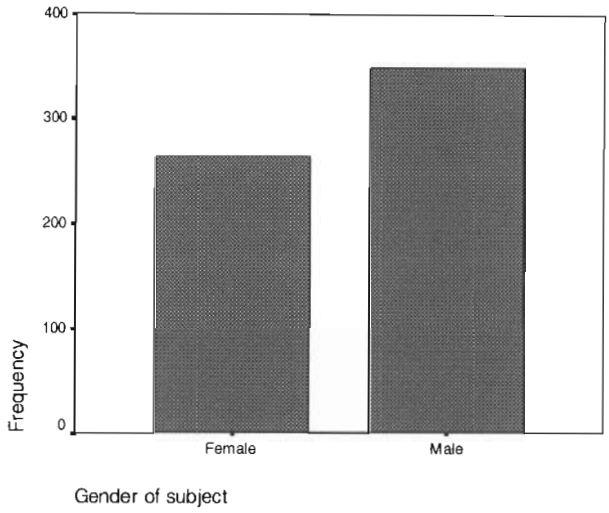


Table 5.14 Gender of Sample Compared to 1996 Queensland Census Data.

		Adventure Tourism Sample		1996 Queensland Census Data	
		Frequency	Percent	Frequency	Percent
Valid	Female	264	43.1	1,695,630	50.3
	Male	348	56.9	1,673,220	49.7
	Total	612	100.0	3,368,850	100.0

5.4.7.2 Whole Group by Age

It can be seen from Table 5.15 that by far the largest age group is the 21–30 year olds, representing 358 respondents, or 58.5% of the total group. This group is significantly larger than the next two largest groups, the 31-40 and 11-20 year olds, representing 15.7% and 15.5% of the total group respectively. The two smallest groups are the under

11's and the over 60's as only 2 respondents are in this first group and 1 in the second. The distribution can be seen graphically in Figure 5.9.

Table 5.15 Age of subjects for the whole group (n = 612).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 11	2	.3	.3	.3
	11 – 20	95	15.5	15.5	15.8
	21 – 30	358	58.5	58.5	74.3
	31 – 40	96	15.7	15.7	90.0
	41 – 50	42	6.9	6.9	96.9
	51 – 60	18	2.9	2.9	99.8
	Over 60	1	.2	.2	100.0
	Total	612	100.0	100.0	

Figure 5.9 Age distribution of subjects (n = 612).

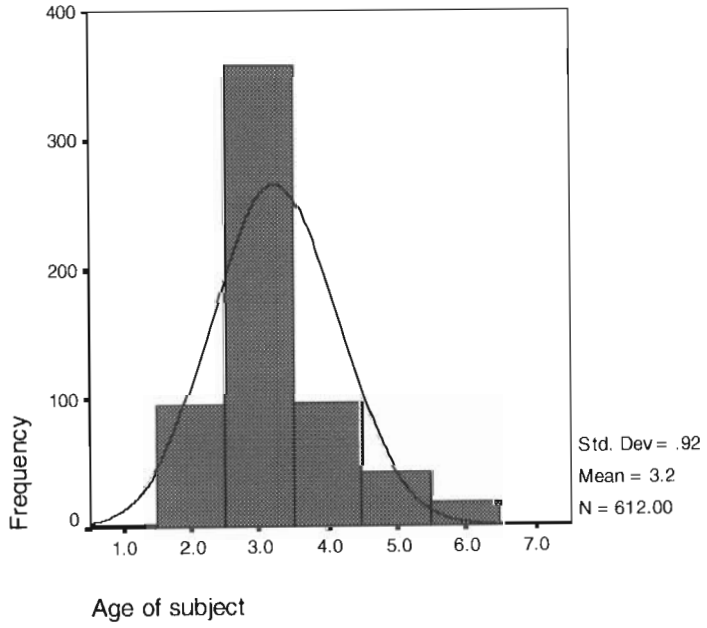


Table 5.16 Age of Sample Compared to 1996 Queensland Census Data.

		Adventure Tourism Sample		1996 Queensland Census Data	
		Frequency	Percent	Frequency	Percent
Valid	Under 11	2	.3	528,377	15.7
	11 – 20	95	15.5	484,050	14.4
	21 – 30	358	58.5	505,809	15.0
	31 – 40	96	15.7	511,957	15.2
	41 – 50	42	6.9	467,063	13.9
	51 – 60	18	2.9	322,834	9.6
	Over 60	1	.2	499,096	14.8
	Total	612	100.0	3,319,186	98.5*

* Note that the total for the Queensland census data does not equal 100% as the 49,664 persons on overseas visas were not included in the calculations

It can be seen in Table 5.16 that adventure tourists tend to be young, with 58.5 percent of them being in the 21-30 year age category.

5.4.7.3 Whole Group by Occupation

The single largest number of people in any one occupation are those who identified themselves as being in the "technical" category. This can be seen in Table 5.17. Appendix 27 shows that 66.9% of the respondents in this category are in the 21-30 year old age category. The 11-20 year olds are strongly represented in the "home duties" category with 61.1% of respondents being identified. Only 2 respondents, or 2.1% of the 11-20 year olds identified themselves as being students.

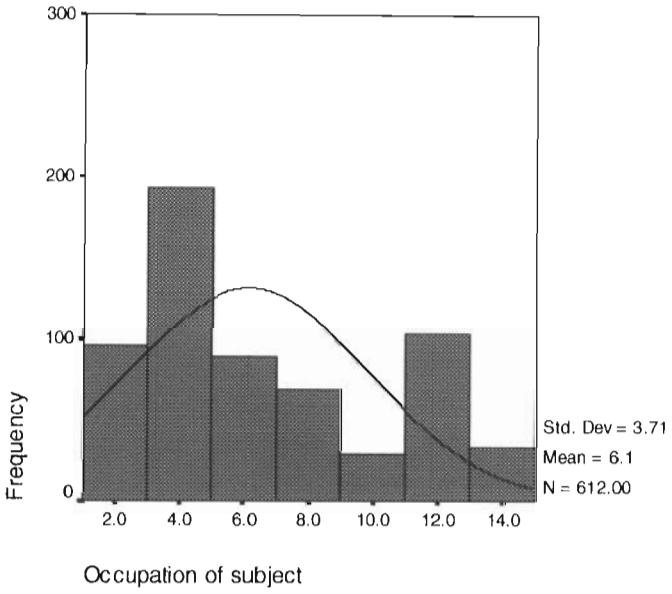
Table 5.17 Occupation of subject for the whole group – statistics (n = 612).

N	Valid	612
	Missing	0
Mean		6.11
Median		5.00
Mode		4
St. Deviation		3.71
Variance		13.80
Range		13
Minimum		1
Maximum		14
Percentiles	25	4.00
	50	5.00
	75	9.00

Table 5.18 Occupation of subjects for the whole group (n = 612).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive/manager	83	13.6	13.6	13.6
	Teacher/lecturer	13	2.1	2.1	15.7
	Other Professional	30	4.9	4.9	20.6
	Technical	163	26.6	26.6	47.2
	Skilled tradesperson	41	6.7	6.7	53.9
	Clerical	48	7.8	7.8	61.8
	Sales/personal service	26	4.2	4.2	66.0
	Driver/plant/machinery operator	43	7.0	7.0	73.0
	Labourer	13	2.1	2.1	75.2
	Student	16	2.6	2.6	77.8
	Home duties	101	16.5	16.5	94.3
	Independent means/retired	2	.3	.3	94.6
	Unemployed	6	1.0	1.0	95.6
	No occupation indicated	27	4.4	4.4	100.0
	Total	612	100.0	100.0	

Figure 5.10 Occupation of the whole group (n = 612)

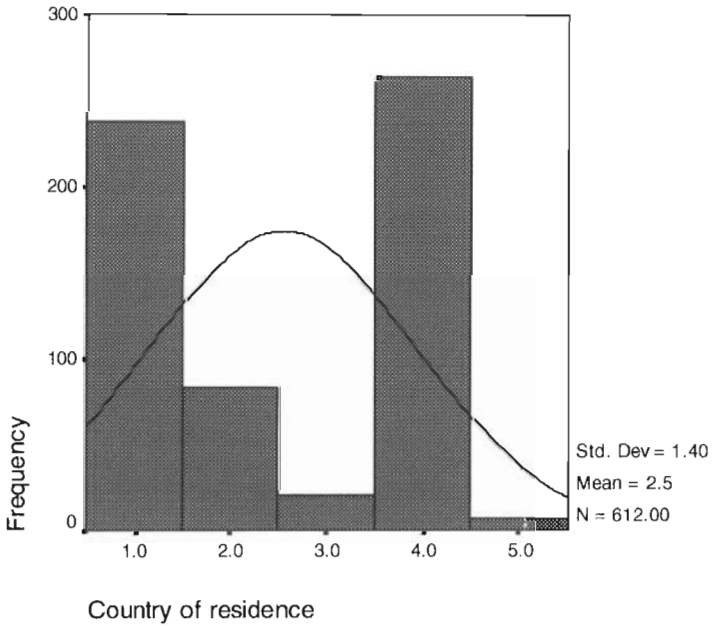


5.4.7.4 Whole Group by Country of Residence

Table 5.14 shows that 264 respondents, or 43.1% of the total group, identified the UK and Ireland as their country of residence. This is closely followed by Australia as a country of residence with 238 respondents, or 38.9%, of the total group. USA as a country of residence accounts for 13.6% of respondents, Canada 3.3% and New Zealand 1.1% of the total group. Appendix 26 shows that for the 21-30 year olds (representing 55.7% of the total group), 52.5% of them came from the UK and Ireland and 31.1% from Australia. This pattern of the UK and Ireland as the largest group is reversed for the 11-20 year olds (27.4% UK and Ireland, 58.9% Australia) and the 31-40 year olds (35.4% UK and Ireland, 40.6% Australian) with most respondents being Australian. Many Australians in the 31-40 year old category are travelling with their children.

Table 5.19 Country of residence of subjects for the whole group (n = 612)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Australia	238	38.9	38.9	38.9
	USA	83	13.6	13.6	52.5
	Canada	20	3.3	3.3	55.7
	UK & Ireland	264	43.1	43.1	98.9
	New Zealand	7	1.1	1.1	100.0
	Total	612	100.0	100.0	

Figure 5.11 Country of Residence of the whole group (n = 612)



5.4.7.4.1 Whole Group by Australian Post-Code

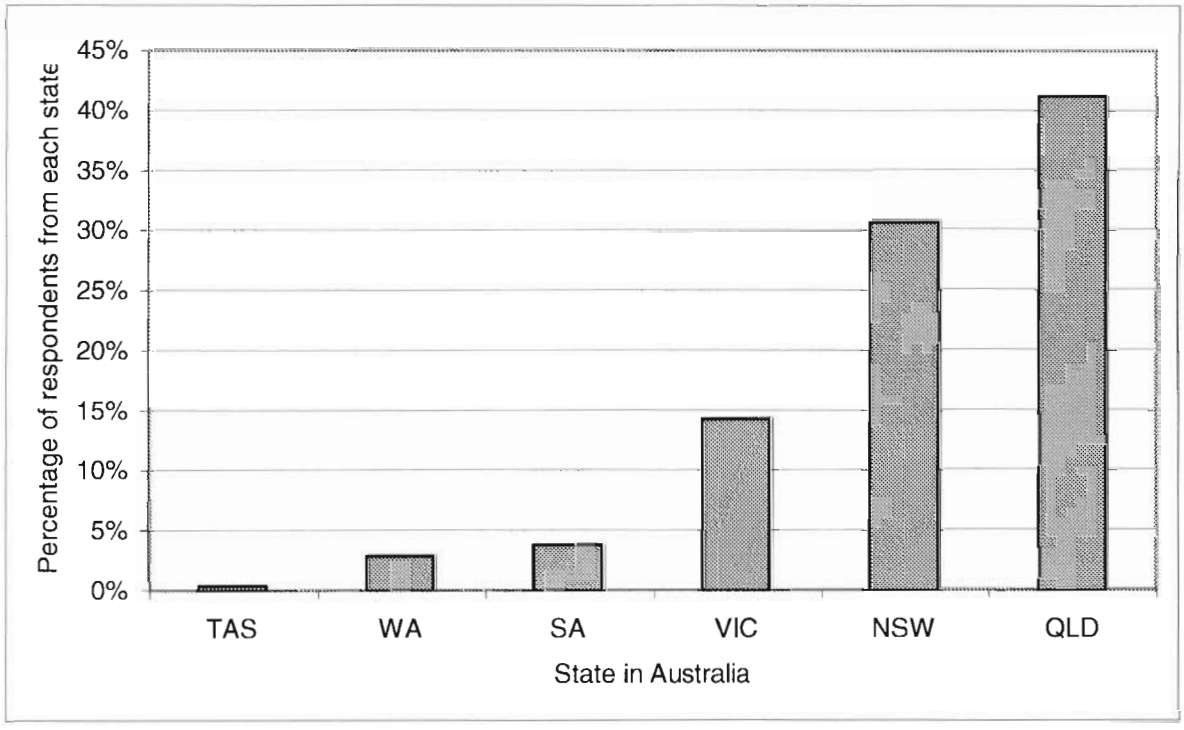
A total of 238 post codes were entered by Australian residents. To make the data more understandable, the post codes have been categorized according to the different states in Australia. It can be seen in Table 5.20 that the majority of Australian respondents (41.2%), came from Queensland with the smallest number from Tasmania. This can also be seen in Figure 5.12. Of the respondents who identified Queensalnd as their place of residence, it can be seen that many come from Cairns, Holloways Beach and Clifton

Beach. These are all closely located to the area in which the three adventure activities take place, suggesting a substantial local market.

Table 5.20 Australian State from which Australian Residents Come From (n = 238).

State	Frequency	Percent	Valid Percent	Cumulative Percent
New South Wales	73	30.7	32.9	32.9
Victoria	34	14.3	15.3	48.2
Queensland	98	41.2	44.1	92.3
South Australia	9	3.8	4.1	96.4
West Australia	7	2.9	3.2	98.5
Tasmania	1	.4	.5	100.0
Sub-Total	222	93.3	100.0	
Missing	16	6.7		
Total	238	100.0		

Figure 5.12 Percentage of Australian Respondents from their Home State (n = 238).



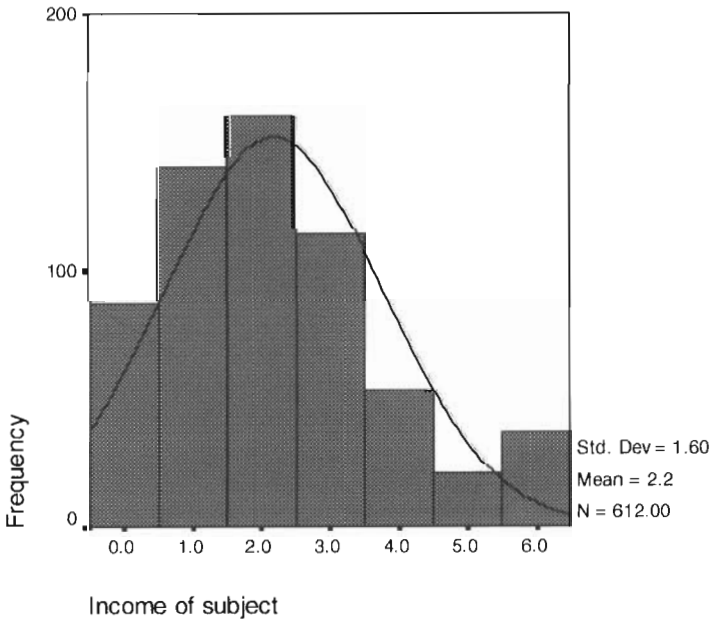
5.4.7.5 Whole Group by Income

The income of the whole group appears to be clustered around the "under $20,000 per annum" and "between $20,000 and $40,000 per annum" categories. This is reflective of the fact that 74.3% of the group are 30 years old or younger, and have not yet developed their careers.

Table 5.21 Income of subjects for the whole group (n = 612).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No income indicated	87	14.2	14.2	14.2
	Under $20,000	140	22.9	22.9	37.1
	$20,000 - $40,000	160	26.1	26.1	63.2
	$40,001 - $60,000	114	18.6	18.6	81.9
	$60,001 - $80,000	53	8.7	8.7	90.5
	$80,001 - $100,000	21	3.4	3.4	94.0
	Over $100,001	37	6.0	6.0	100.0
	Total	612	100.0	100.0	

Figure 5.13 Income of the whole group (n = 612).



5.4.8 Whole group by Insurance Cover

It can be seen in Appendix 16 that of the 612 people surveyed, 400 were able to identify a type of insurance cover. While some people were able to identify these as being "travel insurance", "full holiday insurance," or "annual and high risk," others named insurance such as "life," "car insurance," and "don't know – MBF I think".

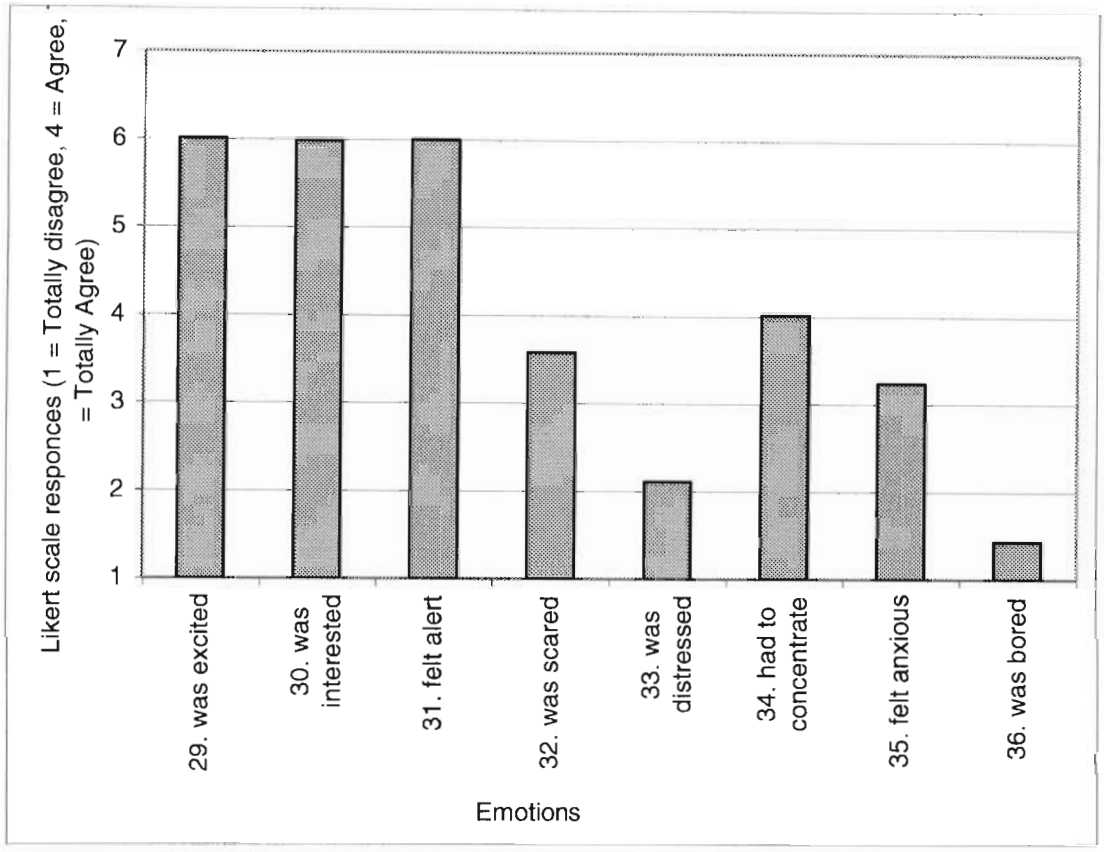
5.4.9 Whole Group by Post-Event Emotions

It can be seen in Table 5.22 and Figure 5.14 that respondents agreed (a rating of 6 on the 1-7 Likert scale) with the statements that they were excited, interested and felt alert while participating in the three adventure tourism activities being undertaken. The respondents only agree (a rating of 4 on the 1-7 Likert scale) with having to concentrate, but did not agree that statements describing feeling scared, distressed, anxious or bored reflected the way they felt.

Table 5.22 Descriptive Analysis of Post-Event Emotions for the Whole Group (n = 612).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
29	612	6	1	7	6.01	1.37	1.89	-1.273	.099	.888	.197
30	612	6	1	7	5.99	1.30	1.69	-1.199	.099	.878	.197
31	612	6	1	7	6.01	1.32	1.75	-1.267	.099	1.072	.197
32	612	6	1	7	3.59	22.33	5.44	.365	.099	-1.411	.197
33	612	6	1	7	2.12	1.84	3.37	1.715	.099	1.735	.197
34	612	6	1	7	4.02	1.77	3.13	.047	.099	-.587	.197
35	612	6	1	7	3.24	2.17	4.71	.571	.099	-1.055	.197
36	612	6	1	7	1.43	1.20	1.43	3.351	.099	10.995	.197

Figure 5.14 Post-Event Emotions for the Whole Group (n = 612).



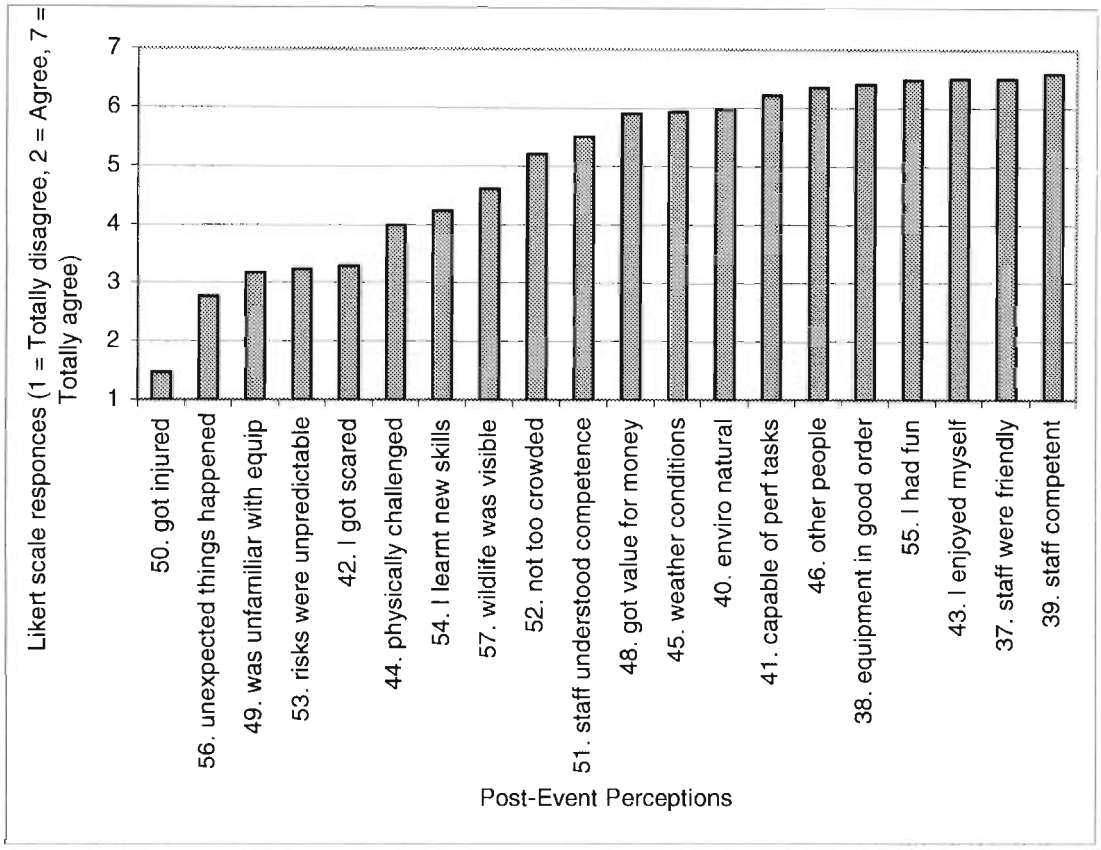
5.4.10 Whole Group by Post-Event Perceptions

Table 5.23 and Figure 5.15 show the post-event perceptions for the 612 respondents. It is apparent that they did not perceive themselves to have been injured, have unexpected things happen, to being unfamiliar with the equipment, to having unpredictable risks or getting scared. On average, these respondents also felt that the staff were competent (6.60 on the Likert scale), and friendly (6.5 on the Likert scale).

Table 5.23 Descriptive Analysis of Post-Event Perception Variables.

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
37	612	6	1	7	6.50	1.00	1.003	-2.538	.099	7.443	.197
38	612	6	1	7	6.40	1.07	1.144	-1.973	.099	3.693	.197
39	612	6	1	7	6.60	0.91	.834	-2.740	.099	8.319	.197
40	612	6	1	7	5.97	1.41	1.999	-1.250	.099	.690	.197
41	612	6	1	7	6.21	1.28	1.635	-1.815	.099	3.132	.197
42	612	6	1	7	3.28	2.35	5.513	.552	.099	-1.266	.197
43	612	6	1	7	6.50	1.06	1.118	-2.613	.099	7.454	.197
44	612	6	1	7	3.99	2.04	4.144	.094	.099	-1.170	.197
45	612	6	1	7	5.93	1.52	2.313	-1.306	.099	.803	.197
46	612	6	1	7	6.35	1.32	1.734	-2.340	.099	5.212	.197
47	612	6	1	7	5.50	1.87	3.511	-.980	.099	-.111	.197
48	612	6	1	7	5.90	1.44	2.074	-1.189	.099	.639	.197
49	612	6	1	7	3.18	2.23	4.970	.649	.099	-1.040	.197
50	612	6	1	7	1.47	1.38	1.903	3.149	.099	8.971	.197
51	612	6	1	7	5.50	1.56	2.434	-.672	.099	-.377	.197
52	612	6	1	7	5.20	1.79	3.217	-.556	.099	-.839	.197
53	612	6	1	7	3.23	1.95	3.799	.623	.099	-.682	.197
54	612	6	1	7	4.24	2.15	4.4607	-.089	.099	-1.292	.197
55	612	6	1	7	6.48	1.07	1.143	-2.365	.099	5.819	.197
56	612	6	1	7	2.78	1.93	3.738	.922	.099	-.282	.197
57	612	6	1	7	4.61	2.11	4.470	-.358	.099	-1.148	.197

Figure 5.15 Post-Event Perceptions for the Whole Group 9 (n = 612).



5.4.11 Whole Group by Post-Event Intentions Regarding Future Adventure Activities

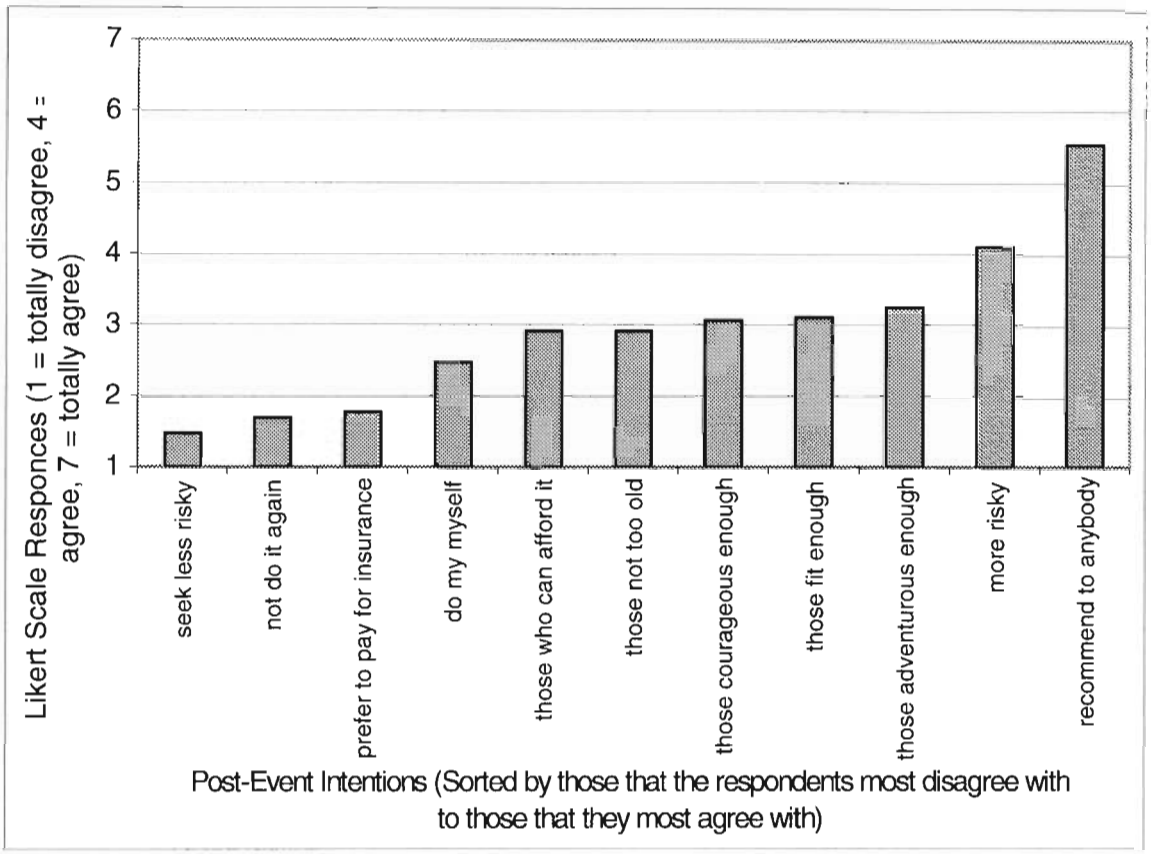
The average post-event intentions identified from this preliminary analysis of the 612 respondents, as shown in Table 5.24 and Figure 5.16, show that respondents disagreed with all the suggested intentions except for two. The two they agreed with reflected their post-event intentions, that in the future, they would seek a more risky adventure activity, and that they would recommend the tour to anybody. Seeking a more risky adventure tourism experience than the one they just undertook makes sense, when one considers the six motivations that respondents agreed with ("to experience risk", "to be physically active", "to do something that I can tell my friends about", to have a chance of seeing or experiencing something new", "to do something adventurous" and "to have exciting experiences"), and the fact that they expected to get scared, but did not expect unexpected

things to happen, and expected themselves to be unfamiliar with the equipment used, but were not. However, given that 12 of the 21 pairs of expectation/post-event perceptions indicate that the respondents were satisfied with particular aspects of the experience, this overall sense of satisfaction is reflected in the respondents indicating that they would "recommend the tour to anybody".

Table 5.24 Descriptive Analysis of Post-Event Intention Variables for the Whole Group (n = 612).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
55	612	6	1	7	1.47	1.29	1.654	3.334	.099	10.701	.197
56	612	6	1	7	1.69	1.63	2.672	2.523	.099	5.131	.197
57	612	6	1	7	4.10	2.08	4.338	.005	.099	-1.213	.197
58	612	6	1	7	2.46	1.87	3.493	1.180	.099	.297	.197
59	612	6	1	7	1.78	1.41	1.991	2.264	.099	4.939	.197
60	612	6	1	7	3.11	1.95	3.790	.607	.099	-.651	.197
61	612	6	1	7	3.06	1.94	3.756	.694	.099	-.566	.197
62	612	6	1	7	3.25	1.96	3.849	.520	.099	-.787	.197
63	612	6	1	7	2.91	1.88	3.539	.694	.099	-.555	.197
64	612	6	1	7	2.91	1.88	3.552	.715	.099	-.460	.197
65	612	6	1	7	5.55	1.87	3.499	-.960	.099	-.349	.197

Figure 5.16 Post-Event Intentions for the Whole Group (n = 612).



5.4.12 Whole Group by Post-Event Intentions Regarding Injury Insurance

Respondents were asked to indicate, by ticking the appropriate Likert scale box (totally disagree to totally agree), how they felt about certain statements. When they were asked how they felt about the statement "I would prefer to pay for injury insurance before doing this again", 64.7% of respondents totally disagreed. These 369 respondents indicated this by ticking the number 1 box on the Likert scale as can be seen in Table 5.25, where 49 respondents, or 8% of the total group, agreed with the statement, and 22 respondents (3.6% of the total group) totally agreed that they would prefer to pay for injury insurance, before participating in the same adventure tourism activity again.

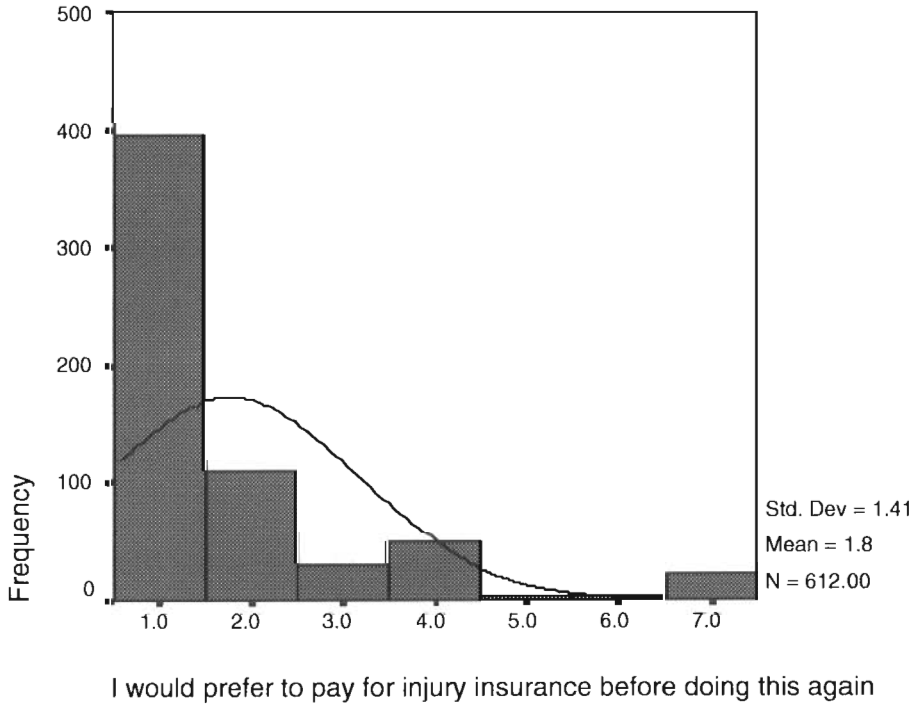
There is some evidence that insurance cover supplied by the tour operator, in extreme circumstances of injury, may increase participation. However, this may simply be a

common sense reaction by the minority, and does not indicate a strong need to advertise such insurance.

Table 5.25 Group Response to the Variable "I would prefer to pay for injury insurance before doing this activity again" (n = 612).

Likert Response	Frequency	Percent	Valid Percent	Cumulative Percent
1 = Totally disagree	369	64.7	64.7	64.7
2	109	17.8	18.8	82.5
3	30	4.9	4.9	87.4
4 = Agree	49	8.0	8.0	95.4
5	3	.5	.5	95.6
6	3	.5	.5	96.4
7 = Totally agree	22	3.6	3.6	100.0
Total	612	100.0	100.0	

Figure 5.17 Group Response to the Variable "I would prefer to pay for injury insurance before doing this activity again" (n = 612).



5.4.13 Whole Group by Post-Event Intentions Regarding Recommendations

Table 5.26 shows the six variables used to measure the respondents post-event intention to recommend the tour to others (section 2.5 of the questionnaire). Table 5.27 and Figure 5.18 show that the only statement that respondents agree with (a score of 5.55 on the 7 point Likert scale) is that "I would recommend this tour to anybody". It appears that this recommendation is not dependant on the person receiving the advice being fit enough, courageous enough, adventurous enough, too old or able to afford it.

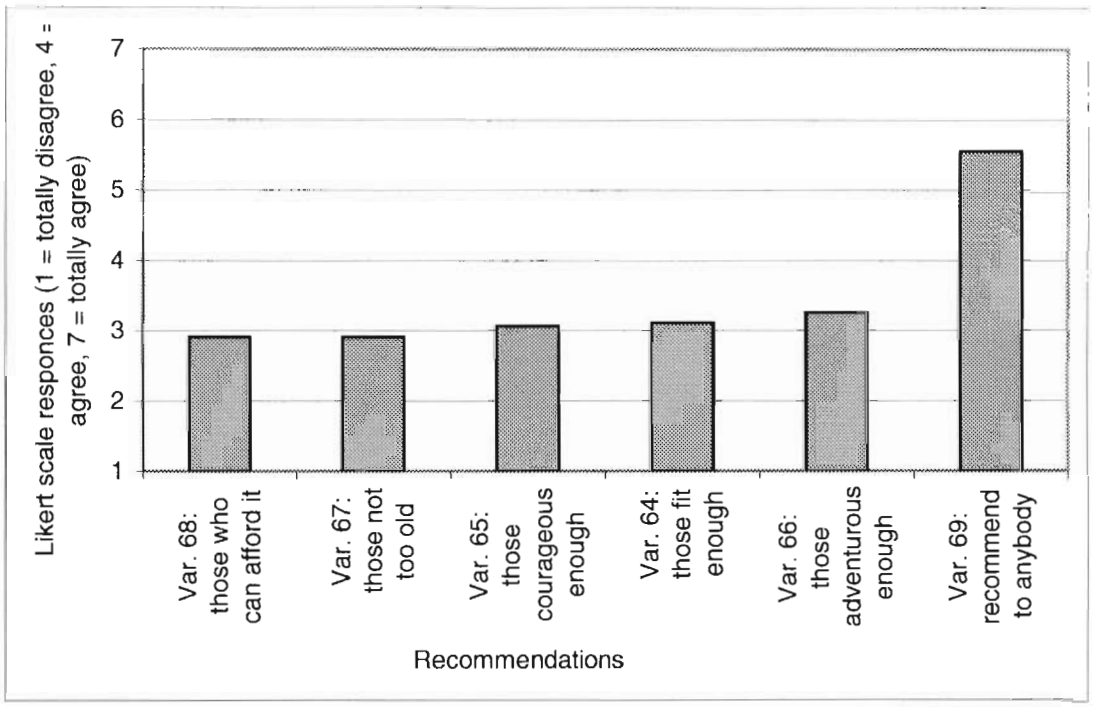
Table 5.26 Variables in Section 2.5 of the Questionnaire used to Measure Post-event Intentions – Recommendations.

Variable Number	Variable Description
60	I would only recommend this tour to people who are fit enough
61	I would only recommend this tour to people who are courageous enough
62	I would only recommend this tour to people who are adventurous enough
63	I would only recommend this tour to people who are not too old
64	I would only recommend this tour to people who can afford it
65	I would recommend this tour to anybody

Table 5.27 Descriptive Analysis of Post-Event Recommendations – Whole Group (n = 612).

Variable Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
64	612	6	1	7	3.11	1.95	3.79	.607	.099	-.651	.197
65	612	6	1	7	3.06	1.94	3.76	.694	.099	-.566	.197
66	612	6	1	7	3.25	1.96	3.85	.520	.099	-.787	.197
67	612	6	1	7	2.91	1.88	3.54	.694	.099	-.555	.197
68	612	6	1	7	2.91	1.88	3.55	.715	.099	-.460	.197
69	612	6	1	7	5.55	1.87	3.50	-.960	.099	-.349	.197

Figure 5.18 Section 2.5 of the Questionnaire: Post-Event Intentions Regarding Recommendations (n = 612).



5.5 Testing Hypothesis 1: Perceived Risk and Activity

A critical section of the preliminary analysis is to determine if the respondents from the three different adventure activities need to be analysed separately, or if they should be treated as one homogenous group. As one of the main aims of this study is to determine the significance that a participant places on experiencing risk as a motivation in an adventure tourism experience, variable number 8 "The reason I chose to do this activity was to experience risk" will be used to discriminate between the three groups. Therefore, it is necessary at this stage of the preliminary analysis to test the general hypothesis number one:

> H1: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on the adventure tourism activity selected.

Table 5.28 shows the group statistics for participants of the three different activities. It can be seen that the mean scores appear to be quite different, with the sailing participants

not agreeing with the statement, the bungy jumpers very much agreeing with the statement and the rafting somewhat agreeing with it. The differences between these mean scores are confirmed in Tables 5.29 and 5.30 which show the 2-tailed significance levels are significant at 99.9%. Therefore a separate analysis of each group is justified, and the sample can be segmented on the basis of the degree of perceived risk.

Table 5.28 Group Statistics for the Three Activities and Responses to the Statement: "The reason I chose to do this activity was to experience risk" (n = 612).

Activity	N	Mean	Std. Deviation	Std. Error mean
Rafting	242	5.14	1.77	.11
Sailing	181	2.52	1.75	.13
Bungy	189	6.18	1.13	.10
Note: 1 = totally agree, 4 = agree, 7 = totally disagree				

Table 5.29 Testing for Differences in the Mean Score for Item 8 "to experience risk" between Rafting (n = 242) and Sailing (n = 181) Participants.

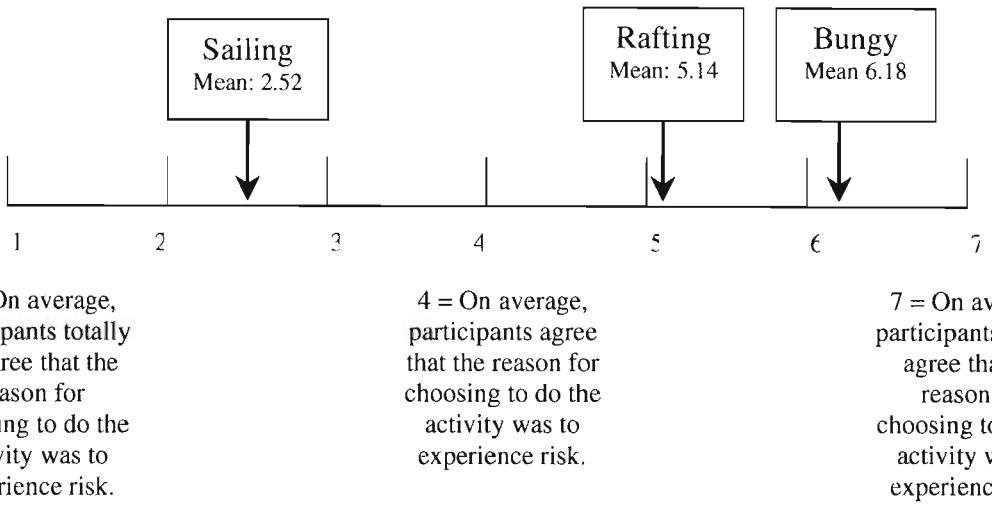
	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	17.8	.000	-22.096	368	.000	-3.66	.17	-3.98	-3.33
Equal variance not assumed	75		-22.000	347.472	.000	-3.66	.17	-3.98	-3.33

Table 5.30 Testing for Differences in the Mean Score for Item 8 "to experience risk" between Sailing (n = 181) and Bungy Jumping (n = 189) Participants.

	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	.015	.902	15.113	421	.000	2.61	.17	2.27	2.95
Equal variance not assumed			15.139	390	.000	2.61	.17	2.27	2.95

Figure 5.20 shows a graphical representation of where the participants of the three activities are on the 1 – 7 totally agree/totally disagree Likert scale. Sailing is seen to be quite low on the scale of seeking risk and bungy jumping is seen as quite high. Whitewater rafting is in the middle, but closer to the higher end toward bungy jumping.

Figure 5.19 "Notional" Representation (data is not interval) of Risk as a Motivation for Sailing, Rafting and Bungy Jumping Participants (n = 612).



5.6 Testing Hypothesis 2: Perceived Risk by Prior Experience

Does prior experience in a particular adventure tourism activity affect the desire of those participants to experience risk? In the same way that is was important to test for segmentation by risk, it is also necessary as part of the preliminary analysis to test for segmentation on the basis of prior experience. Consequently, it is necessary to test hypothesis two:

> H2: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their level of prior experience in the adventure tourism activity selected.

Tables 5.31, 5.32 and 5.33 show that there is no significant difference between adventure tourists who have, and do not have, prior experience. This evidence suggests that prior experience in each of these adventure tourism activities does not make any difference when participants are asked to respond to the question "the reason I chose to do this activity was to experience risk". This finding is contrary to previous literature studies that suggest the attitude toward risk seeking behaviour is different between those people with and without prior experience (Bettman, 1973, Cheron and Ritchie, 1982, Priest, 1992, 1993, Robinson, 1992, McIntyre, 1992, Kuentzel and McDonald, 1992, Zuckerman, 1990). This may be the case in situations other than adventure tourism. However, there is no reason from the data collected in this survey to divide the sample on the basis of previous experience. Consequently, the analysis in Chapter six will not follow the conceptual model shown in Figure 3.1 by dividing on the basis of experience.

Table 5.31 Testing for Differences in the Mean Score for Variable 8 "to experience risk" between Rafting Participants With and Without Prior Experience in the Activity (n = 242).

	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	.736	.392	.099	239	.921	2.41	.24	-.45	.50
Equal variance not assumed			.103	174.36	.918	2.41	.23	-.44	.49

Table 5.32 Testing for Differences in the Mean Score for Variable 8 "to experience risk" between Sailing Participants With and Without Prior Experience in the Activity (n = 181).

	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	.711	.400	.342	178	.733	.10	.29	-.48	.68
Equal variance not assumed			.334	84.54	.740	.10	.29	-.50	.70

Table 5.33 Testing for Differences in the Mean Score for Variable 8 "to experience risk" between Bungy Participants With and Without Prior Experience in the Activity (n = 189).

	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	.345	.558	.277	.184	.782	7.31	.26	-.45	.59
Equal variance not assumed			.265	52.47	.792	7.31	.26	-.45	.63

5.7 Testing Hypothesis 3: Perceived Risk by Country of Origin

Again it is necessary to test hypothesis three in the preliminary analysis to determine whether national culture causes significant differences in regard to perceived risk. Hypothesis three questions the need to be aware of national cultural variations in the attitude towards risk:

> H3: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their country of origin.

Tables 5.34 and 5.35 show that there are significant differences between Australian and non-Australian residents, at a confidence level of 95%. However, this relates to the different age structure between Australians and non-Australians. Table 5.36 shows that the Australian adventure tourists represent 23.5% of the 11-20 year olds, whereas the non-Australians account for only 10.4%. This may be attributed to the fact that domestic travellers are more likely to travel with their children as opposed to international travellers. It can also be seen that the non-Australian sample is more highly represented in the 21-30 year old age group (62.8%) compared to the Australian sample (44.5%). The other categories (under 11, 31-40, 41-50, and 51-60) are very similar in size.

Consequently, it has been decided that the apparent national differences relate more to demographic differences than cultural variation, and future analysis does not need to segment by nationality.

Table 5.34 Testing for Differences in the Mean Score for Variable 8 "to experience risk" between Australian Participants (n = 238) and English Speaking International Participants (n = 374).

Country of Residence	N	Mean	Std. Deviation	Std. Error mean
Australian	238	4.31	2.32	.15
Non-Australian	374	4.93	2.11	.11
Note: 1 = totally agree, 4 = agree, 7 = totally disagree				

Table 5.35 Testing for Differences in the Mean Score for Item 8 "to experience risk" between Australian Participants (n = 238) and English Speaking International Participants (n = 374).

	Levenes test for equality of variances		t-test for equality of means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
								Lower	Upper
Equal variance assumed	6.88	.009	-3.371	610	.001	-.61	.18	-.97	-.26
Equal variance not assumed			-3.300	469	.001	-.61	.19	-.98	-.25

Table 5.36 Comparing Ages between Australian Participants (n = 238) and English Speaking International Participants (n = 374).

	Frequency		Percent		Cumulative Percent	
	Australian	Non-Australian	Australian	Non-Australian	Australian	Non-Australian
Under 11	2	6	.8	1.6	5.5	1.6
11 – 20	56	39	23.5	10.4	29.0	12.0
21 – 30	106	235	44.5	62.8	73.5	74.9
31 – 40	39	57	16.4	15.2	89.9	90.1
41 – 50	16	26	6.7	7.0	96.6	97.1
51 – 60	7	11	2.9	2.9	99.6	100.0
Over 60	1	0	.4		100.0	
Total	238	374	100.0	100.0		

5.8 Revising the Conceptual Model

As a result of testing hypotheses one, two and three, it is evident that the original conceptual framework (conceived from the literature review and shown in Figure 3.1) is overly complex and contains some unnecessary components. The change specifically relates to the removal of a division of the samples by prior experience. Figure 5.20 now illustrates this revision by taking into account the three levels of perceived risk in relation to the activity being undertaken (sailing, whitewater rafting and bungy jumping).

Figure 5.20 Revised Conceptual Model of Perceived Risk in Adventure Tourism.

5.9 Preliminary Analysis by Activity

Now that the focus of the revised conceptual framework (Figure 5.20) has been changed to consider the level of risk by different activity, a preliminary analysis on this basis is conducted below. This preliminary analysis will be descriptive in nature so that the three groups of adventure tourists may be understood at a general level, prior to the more in depth analysis carried out in Chapter 6, which considers differences in motivations and satisfaction levels between the three groups.

Table 5.37 shows that most of the respondents (242) were taking part in whitewater rafting. The table also shows that this represents 39.5% of the total sample. Respondents bungy jumping numbered 189 (30.9% of the total sample) and sailing participants 181 or 29.6% of the total sample. This represents a fairly even number of respondents to be analysed from each activity.

Table 5.37 Frequency Table by Activity. (n = 612).

	Frequency	Percent	Valid Percent	Cumulative Percent
Rafting	242	39.5	39.5	39.5
Bungy	189	30.9	30.9	69.1
Sailing	181	29.6	29.6	100.0
Total	612	100.0	100.0	

5.9.1 Activity by Motivations

Figure 5.21 shows the various degrees in which participants from each of the three activities agree or disagree with the 15 motivational items suggested. It has already been shown when Hypothesis 1 was tested, that significant differences do occur when item 8 ("to experience risk") is considered. Tables 5.38, 5.39 and 5.40 also show that there appear to be differences in motivations such as item number 4 (to be close to nature), 9 (to see wildlife in detail) and 14 (to experience nature in a unique or different way). An in depth analysis of this difference is conducted in Chapter 6.

Figure 5.21 Motivations by Activity (n = 612).

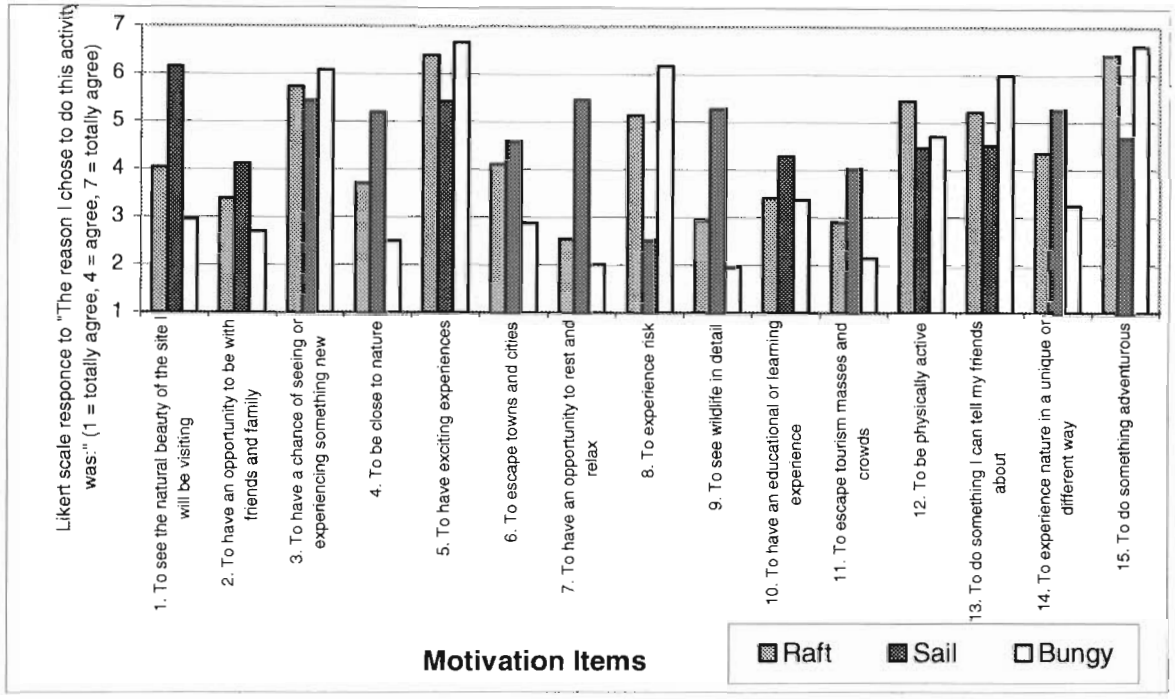


Table 5.38 Descriptive Analysis of Motivation Items – Rafting (n = 242).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
1	242	6	1	7	4.05	1.61	2.58	.192	.156	-.433	.312
2	242	6	1	7	3.39	2.01	4.03	.343	.156	-1.045	.312
3	242	6	1	7	5.73	1.76	3.10	-1.207	.156	.340	.312
4	242	6	1	7	3.71	1.57	2.48	.211	.156	-.313	.312
5	242	6	1	7	6.39	1.12	1.24	-2.271	.156	5.973	.312
6	242	6	1	7	4.13	1.84	3.39	.083	.156	-.886	.312
7	242	6	1	7	2.55	1.82	3.30	1.110	.156	.283	.312
8	242	6	1	7	5.14	1.77	3.12	-.650	.156	-.461	.312
9	242	6	1	7	2.95	1.63	2.65	.685	.156	-.121	.312
10	242	6	1	7	3.41	1.70	2.90	.409	.156	-.439	.312
11	242	6	1	7	2.90	1.60	2.58	.806	.156	.234	.312
12	242	6	1	7	5.45	1.49	2.21	-.737	.156	.100	.312
13	242	6	1	7	5.21	1.81	3.27	-.798	.156	-.312	.312
14	242	6	1	7	4.35	1.81	3.27	-.101	.156	-.865	.312
15	242	6	1	7	6.43	1.02	1.03	-2.292	.156	6.508	.312

Table 5.39 Descriptive Analysis of Motivation Items – Sailing (n = 181).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
1	181	6	1	7	6.15	1.36	1.84	-1.464	.181	1.405	.359
2	181	6	1	7	4.12	2.06	4.26	.008	.181	-1.130	.359
3	181	6	1	7	5.45	1.75	3.07	-.889	.181	-.177	.359
4	181	6	1	7	5.20	1.67	2.80	-.505	.181	-.766	.359
5	181	6	1	7	5.42	1.53	2.33	-.556	.181	-.665	.359
6	181	6	1	7	4.60	2.04	4.14	-.231	.181	-1.207	.359
7	181	6	1	7	5.47	1.64	2.69	-.662	.181	-.689	.359
8	181	6	1	7	2.52	1.75	3.05	1.002	.181	.089	.359
9	181	6	1	7	5.29	1.59	2.53	-.498	.181	-.738	.359
10	181	6	1	7	4.28	1.88	3.53	-.039	.181	-1.015	.359
11	181	6	1	7	4.03	1.98	3.93	.143	.181	-1.045	.359
12	181	6	1	7	4.46	1.72	2.96	-.114	.181	-.718	.359
13	181	6	1	7	4.51	1.89	3.58	-.240	.181	-.898	.359
14	181	6	1	7	5.28	1.57	2.46	-.555	.181	-.400	.359
15	181	6	1	7	4.69	1.76	3.11	-.231	.181	-.849	.359

Table 5.40 Descriptive Analysis of Motivation Items – Bungy (n = 189).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
1	189	6	1	7	2.95	1.79	3.22	.581	.177	-.546	.352
2	189	6	1	7	2.70	1.80	3.22	.840	.177	-.122	.352
3	189	6	1	7	6.08	1.66	2.76	-1.909	.177	2.753	.352
4	189	6	1	7	2.50	1.71	2.92	1.006	.177	.185	.352
5	189	6	1	7	6.66	1.00	1.00	-3.879	.177	16.643	.352
6	189	6	1	7	2.88	2.03	4.12	.865	.177	-.442	.352
7	189	6	1	7	2.01	1.68	2.81	1.741	.177	2.090	.352
8	189	6	1	7	6.18	1.43	2.03	-1.948	.177	3.325	.352
9	189	6	1	7	1.95	1.46	2.14	1.751	.177	2.662	.352
10	189	6	1	7	3.37	2.17	4.70	.398	.177	-1.188	.352
11	189	6	1	7	2.14	1.58	2.48	1.499	.177	1.599	.352
12	189	6	1	7	4.70	2.00	4.00	-.388	.177	-.999	.352
13	189	6	1	7	5.98	1.55	2.40	-1.332	.177	.841	.352
14	189	6	1	7	3.24	2.12	4.48	.553	.177	-.960	.352
15	189	6	1	7	6.61	.96	.93	-3.331	.177	12.959	.352

5.9.2 Activity by Pre-Event Expectations

A graphical representation of the various mean responses to the 36 expectation related items for the 242 rafting participants, 181 sailing participants and 189 bungy participants can be seen in Figure 5.22. This Figure, combined with Tables 5.41, 5.42 and 5.43 show

that while many of the average responses such as item 16 (I expect the staff to be friendly), item 17 (I expect the equipment to be in good order) and item 18 (I expect the staff to be competent) appear to be similar, item 21 (I expect to get scared) appears to be quite different. For example, the average response by the rafting participants when asked the question "today I expect that I will get scared" was 4.69 on the 1 to 7 Likert scale. This indicates that they agree with the statement. The bungy jumping participants rated 5.97 on this item, indicating that they expect to get even more scared than the rafting participants. However, the sailing participants, indicate that they do not expect to get scared, with an average of 2.33. It can also be seen that none of the three groups expect to get injured while participating in each of the three adventure tourism activities. Further, in depth analysis of these apparent differences, is conducted in Chapter 6.

Figure 5.22 Expectation Items by Activity (n = 612).

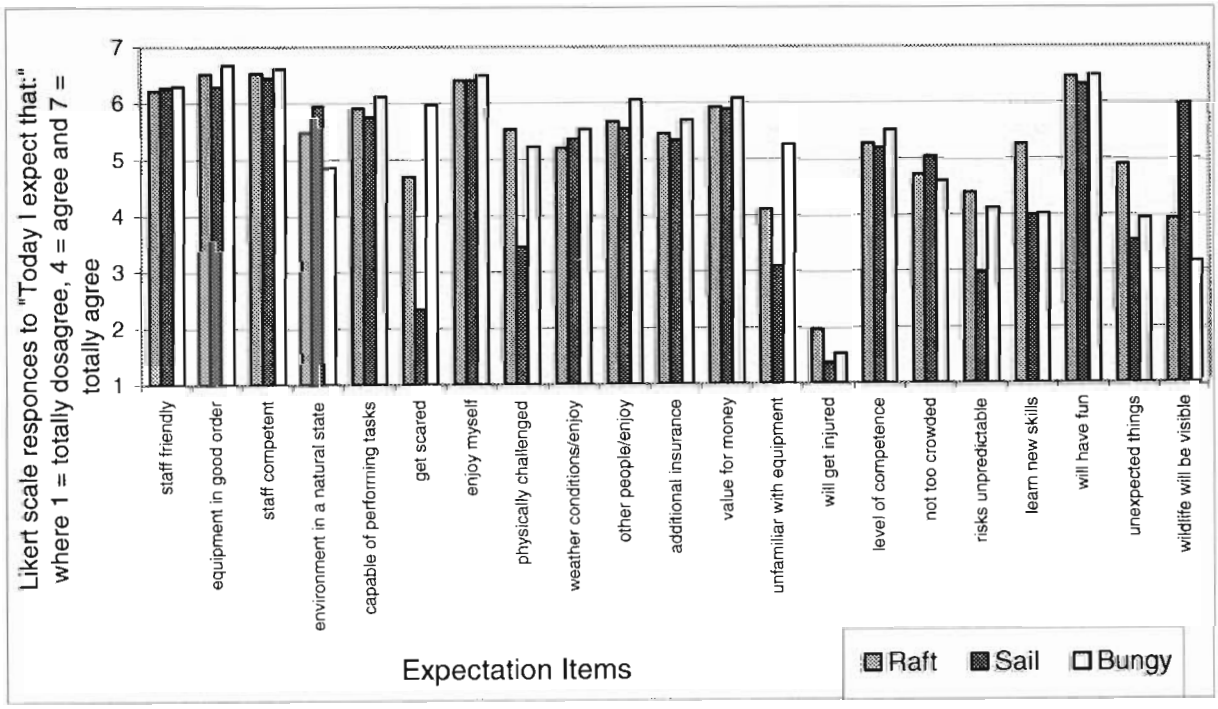


Table 5.41 Descriptive Analysis of Pre-Event Expectation Items – Rafting (n = 242).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
16	242	6	1	7	6.22	1.15	1.32	-1.490	.156	1.792	.312
17	242	6	1	7	6.52	.99	.97	-2.414	.156	6.378	.312
18	242	6	1	7	6.53	1.01	1.01	-2.503	.156	6.515	.312
19	242	6	1	7	5.49	1.38	1.89	-.504	.156	-.499	.312
20	242	6	1	7	5.92	1.27	1.62	-1.013	.156	.418	.312
21	242	6	1	7	4.69	1.85	3.42	-.249	.156	-.925	.312
22	242	6	1	7	6.41	1.12	1.25	-2.429	.156	6.679	.312
23	242	6	1	7	5.54	1.45	2.10	-.656	.156	-.286	.312
24	242	6	1	7	5.20	1.50	2.25	-.380	.156	-.689	.312
25	242	6	1	7	5.67	1.48	2.20	-.975	.156	.334	.312
26	242	6	1	7	5.45	1.84	3.37	-.938	.156	-.114	.312
27	242	6	1	7	5.93	1.29	1.67	-.907	.156	-.241	.312
28	242	6	1	7	4.12	2.09	4.38	.007	.156	-1.259	.312
29	242	6	1	7	1.95	1.28	1.64	1.81	.156	3.787	.312
30	242	6	1	7	5.27	1.53	2.35	-.474	.156	-.582	.312
31	242	6	1	7	4.72	1.66	2.76	-.188	.156	-.712	.312
32	242	6	1	7	4.40	1.84	3.38	-.105	.156	-.947	.312
33	242	6	1	7	5.26	1.54	2.36	-.549	.156	-.430	.312
34	242	6	1	7	6.46	.96	.93	-2.188	.156	5.427	.312
35	242	6	1	7	4.89	1.65	2.72	-.336	.156	-.709	.312
36	242	6	1	7	3.93	1.53	2.35	.237	.156	-.136	.312

Table 5.42 Descriptive Analysis of Pre-Event Expectation Items – Sailing (n = 181).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
16	181	6	1	7	6.27	1.20	1.44	-1.937	.181	3.937	.359
17	181	6	1	7	6.29	1.28	1.64	-2.022	.181	3.754	.359
18	181	6	1	7	6.45	1.10	1.22	-2.444	.181	6.689	.359
19	181	6	1	7	5.95	1.35	1.83	-1.139	.181	.481	.359
20	181	6	1	7	5.75	1.47	2.17	-.929	.181	-.012	.359
21	181	6	1	7	2.33	1.61	2.58	1.205	.181	.770	.359
22	181	6	1	7	6.40	1.13	1.28	-2.343	.181	5.733	.359
23	181	6	1	7	3.45	1.76	3.08	.456	.181	-.472	.359
24	181	6	1	7	5.36	1.53	2.35	-.473	.181	-.711	.359
25	181	6	1	7	5.54	1.62	2.64	-.850	.181	-.189	.359
26	181	6	1	7	5.34	1.87	3.48	-.854	.181	-.279	.359
27	181	6	1	7	5.89	1.35	1.83	-1.007	.181	.158	.359
28	181	6	1	7	3.09	2.09	4.38	.727	.181	-.796	.359
29	181	6	1	7	1.36	.98	.97	4.181	.181	19.740	.359
30	181	6	1	7	5.19	1.67	2.79	-.505	.181	-.551	.359
31	181	6	1	7	5.04	1.69	2.85	-.287	.181	-.943	.359
32	181	6	1	7	2.98	1.85	3.44	.701	.181	-.440	.359
33	181	6	1	7	3.99	1.75	3.06	.178	.181	-.585	.359
34	181	6	1	7	6.32	1.12	1.25	-2.031	.181	4.497	.359
35	181	6	1	7	3.55	1.75	3.06	.409	.181	-.551	.359
36	181	6	1	7	5.98	1.31	1.73	-.904	.181	-.721	.359

Table 5.43 Descriptive Analysis of Pre-Event Expectation Items – Bungy (n = 189).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
16	189	6	1	7	6.31	1.19	1.41	-1.583	.177	1.393	.352
17	189	6	1	7	6.68	.94	.89	-3.616	.177	14.920	.352
18	189	6	1	7	6.61	1.08	1.16	-3.445	.177	12.730	.352
19	189	6	1	7	4.85	1.84	3.39	-.342	.177	-.862	.352
20	189	6	1	7	6.12	1.33	1.78	-1.382	.177	.983	.352
21	189	6	1	7	5.97	1.62	2.62	-1.511	.177	1.412	.352
22	189	6	1	7	6.49	1.09	1.20	-2.353	.177	5.332	.352
23	189	6	1	7	5.22	2.03	4.12	-.777	.177	-.713	.352
24	189	6	1	7	5.54	1.71	2.91	-.875	.177	-.157	.352
25	189	6	1	7	6.06	1.50	2.24	-1.677	.177	2.248	.352
26	189	6	1	7	5.69	1.76	3.09	-1.137	.177	.331	.352
27	189	6	1	7	6.08	1.35	1.83	-1.359	.177	1.192	.352
28	189	6	1	7	5.26	2.00	3.98	-.768	.177	-.741	.352
29	189	6	1	7	1.52	1.13	1.28	3.193	.177	11.471	.352
30	189	6	1	7	5.51	1.59	2.54	-.746	.177	-.256	.352
31	189	6	1	7	4.61	1.71	2.93	-.090	.177	-.684	.352
32	189	6	1	7	4.12	2.15	4.62	.052	.177	-1.327	.352
33	189	6	1	7	4.03	2.05	4.20	.080	.177	-1.090	.352
34	189	6	1	7	6.49	1.14	1.29	-2.619	.177	7.135	.352
35	189	6	1	7	3.94	2.12	4.51	.185	.177	-1.270	.352
36	189	6	1	7	3.16	1.84	3.37	.709	.177	-.295	.352

5.9.3 Activity by Information Sources

It is apparent that brochures are a very popular method of gaining information about these three adventure tourism activities, as was shown for the descriptive analysis for the whole sample of 612 respondents in Figure 5.3 (number of respondents who identified information sources used). Figure 5.23 shows that this is especially so for the rafting and sailing respondents. However, slightly more of the bungy respondents were influenced by word of mouth from a friend or family member.

When asked which of the 13 information sources were influential in their decision to undertake a particular activity, the rafting participants rated "from newspaper/magazine stories/articles seen in my home town" as the most influential with an average response of 7 on the 1 to 7 Likert scale. This can be seen in Figure 5.24. This would suggest that these participants have not only been exposed to stories or articles in magazines and newspapers in their home town, but that these images have formed strong and meaningful reasons for them to choose to do a commercial whitewater rafting trip.

For rafting and sailing participants, radio and television advertising in Cairns was not very influential at all, whereas for the bungy jumping participants, this form of adverting has been influential, as can be seen in Figure 5.24. It can also be seen that the bungy participants were the only group not to mention "from travel agent/booking agency in my home town" as being either a source of information (as can be seen in Figure 5.23), or influential (as can be seen in Figure 5.24). While a small number of these participants do use booking agents in Cairns, most of the bookings come direct to the bungy operator. This may be a geographic issue in that participating in bungy jumping may not be a primary reason for tourists choosing to go to Cairns as a destination, whereas whitewater rafting and sailing may have a wider appeal over a greater geographic distance (that is to say that it has a higher market threshold) as Cairns is known to be a tropical location affording the natural features conducive to participating in these activities.

Figure 5.23 Information Source by Activity.

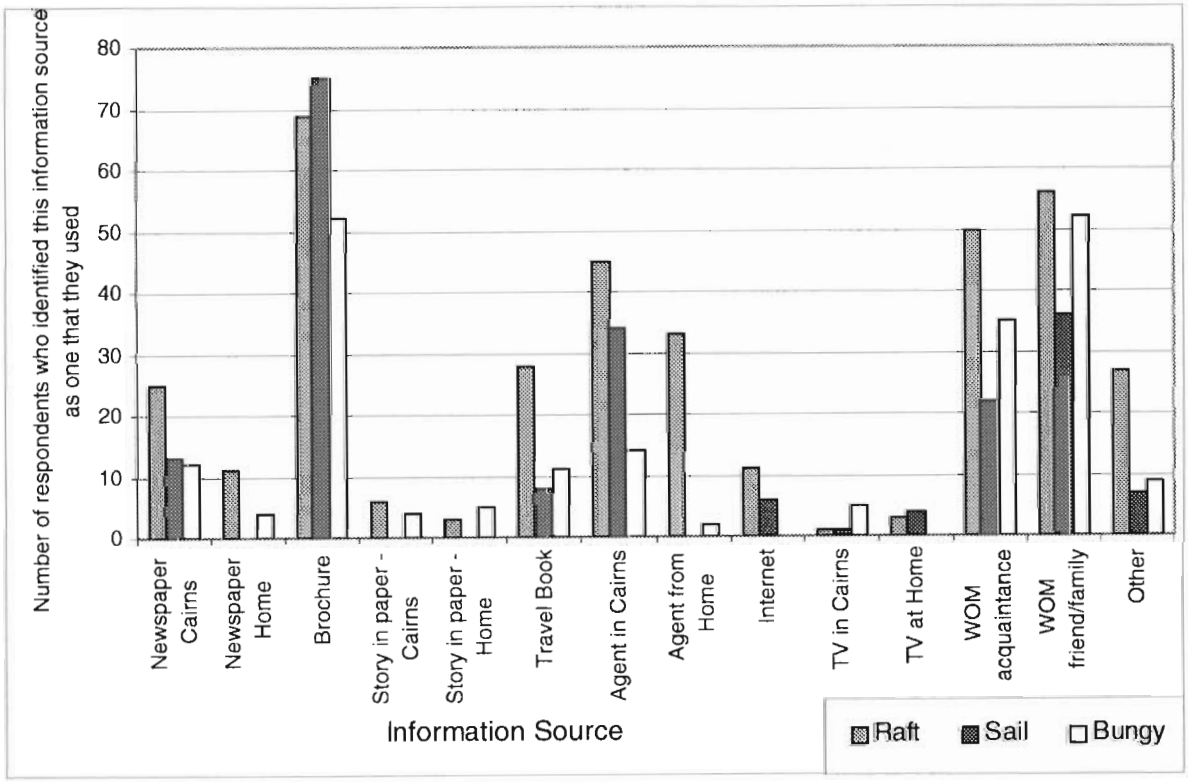
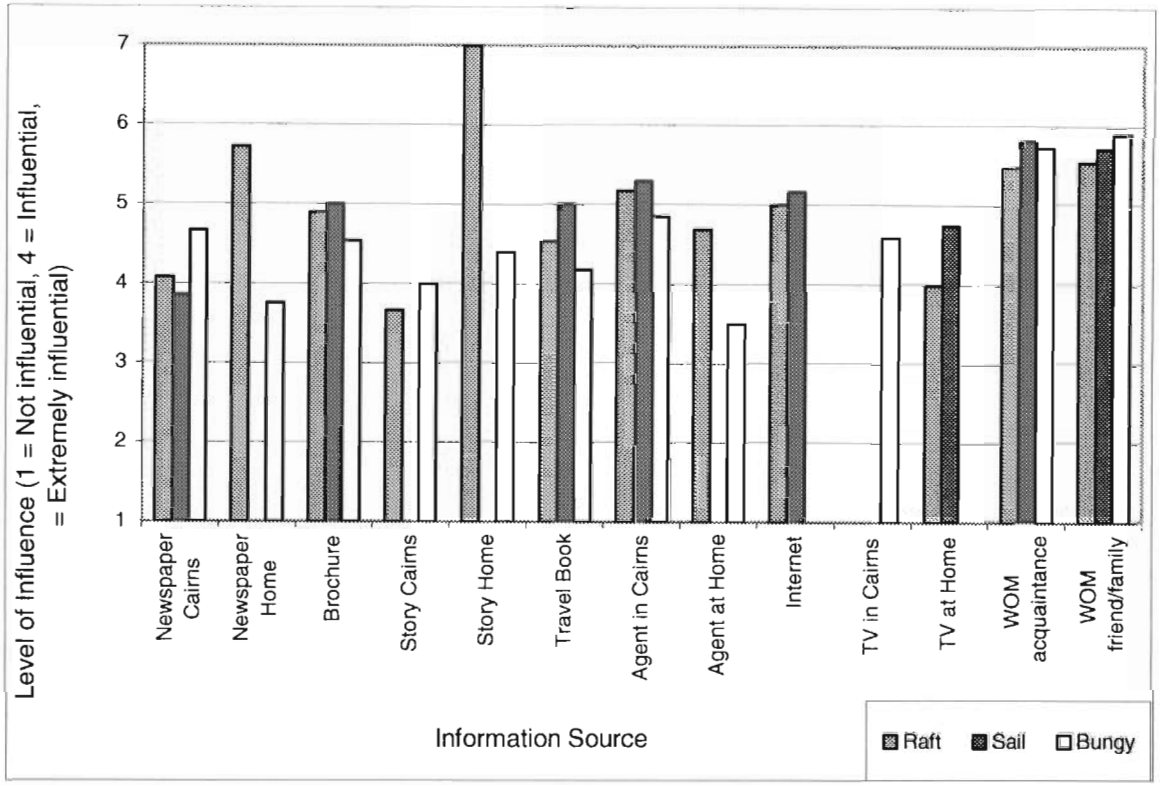


Figure 5.24 Influence of Information Source by Activity.



5.9.4 Activity by Prior Experience

Figure 5.25 displays the breakdown for each activity according to whether participants have, or have not, previously done the activity. It can be seen in Table 5.44 that sailing has the highest occurrence of participants (71.8%) who have previous experience in the activity. The other two activities (whitewater rafting and bungy jumping) show an opposite trend with only 33.1% and 19.6% of participants having done the activity previously. This trend is shown in Table 5.25.

This indicates that there is less return business for activities perceived to be more risky, and raises the question of a greater need for marketing strategies for the higher risk end of adventure tourism, designed to obtain more repeat customers.

Figure 5.25 Has the Subject Done the Activity Before (n = 612)?

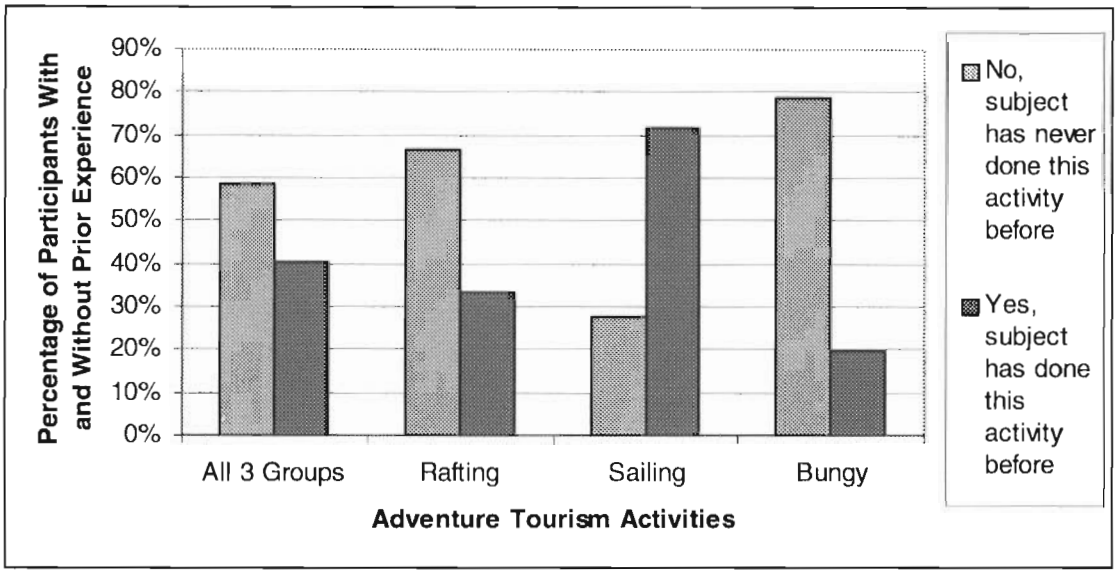


Table 5.44 Frequency table by Previous Experience.

Has the subject done the activity before?	Frequency			Percent			Valid Percent			Cumulative Percent		
	Raft N=242	Sail N=181	Bungy N=189	Raft N=242	Sail N=181	Bungy N=189	Raft N=242	Sail N=181	Bungy N=189	Raft N=242	Sail N=181	Bungy N=189
No	161	50	149	66.5	27.6	78.8	66.5	27.6	78.8	66.9	28.2	80.4
Yes	80	130	37	33.1	71.8	19.6	33.1	71.8	19.6	100.0	100.0	100.0
Total	242	181	189	100.0	100.0	100.0	100.0	100.0	100.0			

Table 5.45 How many times has the subject done this activity?			
Amount of times entered by respondent	Rafting N = 242	Sailing N = 181	Bungy N = 189
0	161	50	149
1	40	30	23
2	13	21	8
3	11	14	2
4	3	12	2
5	6	9	1
6	1	4	1
7	1		
8	1		
9		1	1
10	2	7	
12		2	
15		5	
20	1	6	
25		1	
30	2	6	
40		2	
43		1	
50		2	
70		1	
80		1	
100		4	
200		1	

5.9.5 Activity by Past Experience in Adventure Activities

Snorkelling was shown to be a very popular activity for all groups in Figure 5.6. This is still evident when the three activities are looked at individually. However, more rafting and bungy participants have done horse riding previously than sailing participants. Rafting participants are also more likely to have done other direct water based activities, such as snorkelling and scuba, but not sailing.

Figure 5.26 Past Experience by Activity.

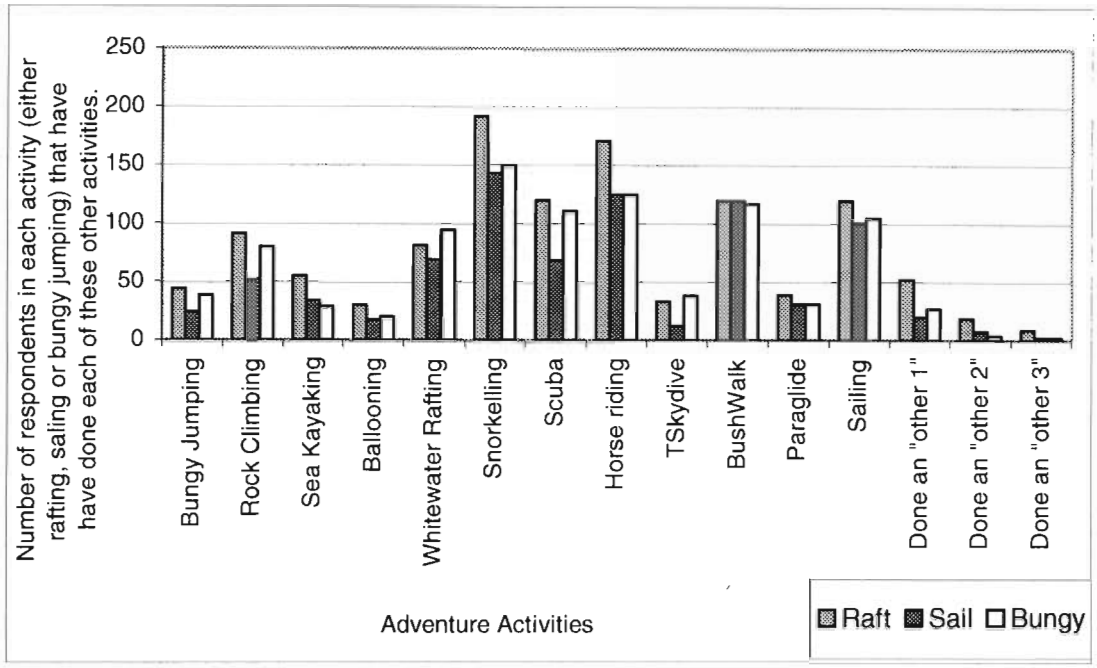
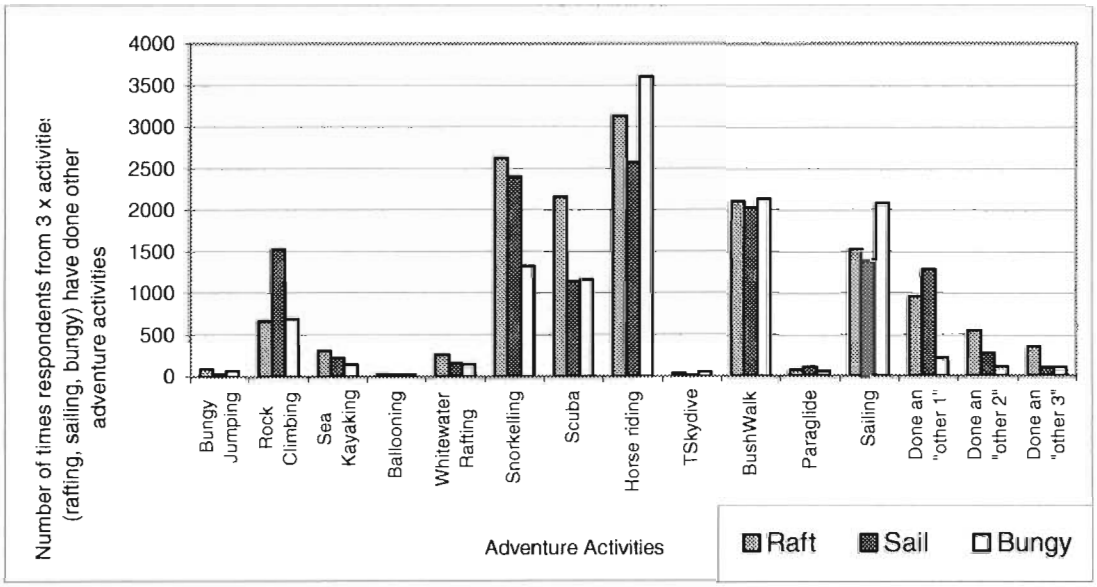


Figure 5.27 Amount of Past Experience by Activity.



5.9.6 Activity by Demographic Variables

Following from a descriptive analysis on the basis of activity, in regards to motivations, expectations, information sources and prior experience, an analysis is carried out on the demographic characteristics.

5.9.6.1 Activity by Gender

Figure 5.28 and Table 5.46 show that males dominated rafting (55.8 %), and even more so bungy jumping (66.1 %), while sailing was more evenly balanced between the sexes (males 47.5 %). Therefore, there is a tendency for males to be greater risk takers as well as being more interested in adventure tourism.

Figure 5.28 Gender Balance of Adventure Tourism Participants.

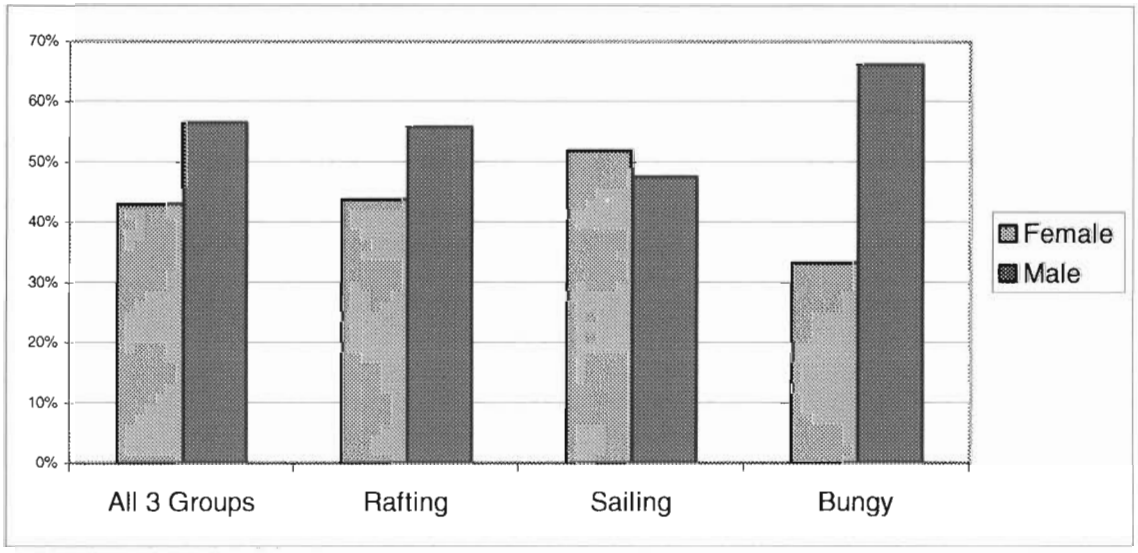


Table 5.46 Frequency Table – Activity by Gender.

	Frequency			Percent			Valid Percent			Cumulative Percent		
Gender	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy
No gender indicated	1	1	1	.4	.6	.5	.4	.6	.5	.4	.6	.5
Female	106	94	63	43.8	51.9	33.3	43.8	51.9	33.3	44.2	52.5	33.9
Male	135	86	125	55.8	47.5	66.1	55.8	47.5	66.1	100.0	100.0	100.0
Total	242	181	189	100.0	100.0	100.0	100.0	100.0	100.0			

5.9.6.2 Activity by Age

Figure 5.29 shows some differences in the age groups participating in each of the three activities. While the 21-30 year old age group is the largest group in each of the activities, there are other differences. For example, it can be seen in Figure 5.30 that sailing appears to have the broadest representation of age groups, while bungy jumping has the narrowest range. Table 5.46 shows that 74.8% of the respondents whitewater rafting, 58% of the sailing respondents and 89.4% bungy jumping respondents are under the age of 30. This suggests that while whitewater rafting and bungy jumping appeals mainly to the younger market (under 30 years of age), the activity of sailing appeals to a wider range of age groups. This is also indicative of the relationship between youth and risk, which is to say that younger adventure tourists are willing to experience more risk.

Figure 5.29 Age of Participants in Each Activity.

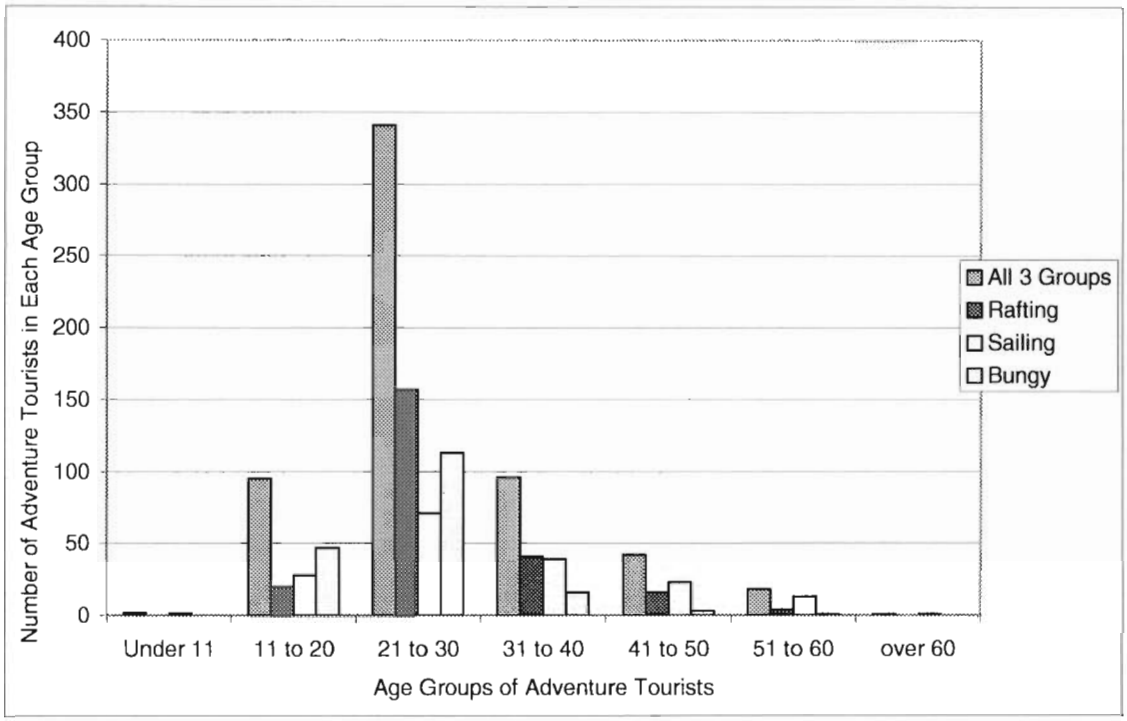


Figure 5.30 Composition of Age Groups in each Activity.

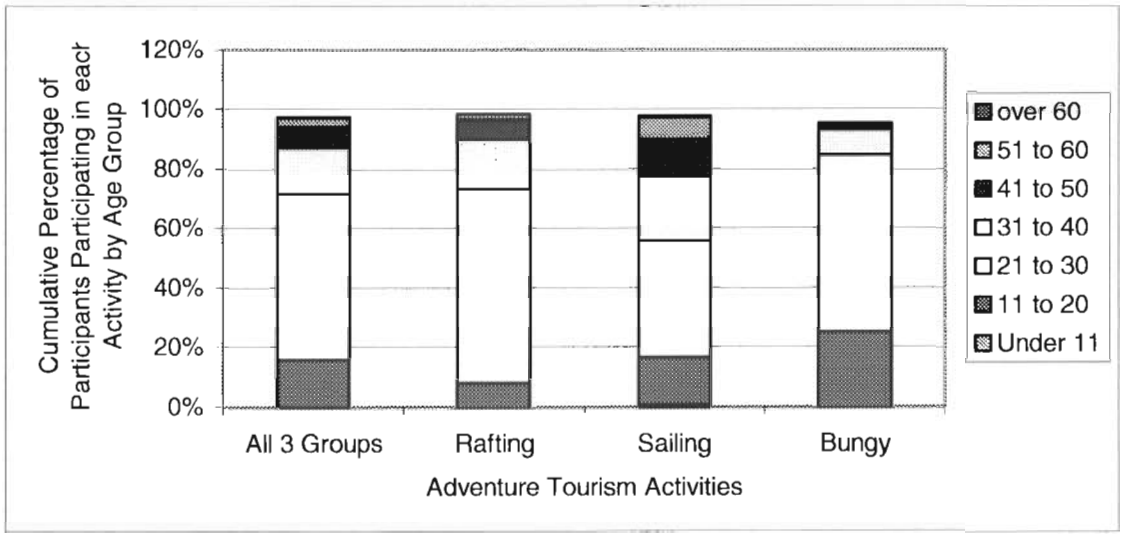


Table 5.47 Frequency Table – Activity by Age.

	Frequency			Percent			Valid Percent			Cumulative Percent		
Age	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy
No age indicated	4	4	9	1.7	2.2	4.8	1.7	2.2	4.8	1.7	2.2	4.8
Under 11	0	2	0	0	1.1		0	1.1			3.3	
11 – 20	20	28	47	8.3	15.5	24.9	8.3	15.5	24.9	9.9	18.8	29.6
21 – 30	157	71	113	64.9	39.2	59.8	64.9	39.2	59.8	74.8	58.0	89.4
31 – 40	41	39	16	16.9	21.5	8.5	16.9	21.5	8.5	91.7	79.6	97.9
41 – 50	16	23	3	6.6	12.7	1.6	6.6	12.7	1.6	98.3	92.3	99.5
51 – 60	4	13	1	1.7	7.2	.5	1.7	7.2	.5		99.4	100.0
Over 60	0	1	0	0	.6		0	.6			100.0	
Total	242	181	189	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

Figure 5.31 Age Distribution of Subjects – Rafting Participants Only (n = 242).

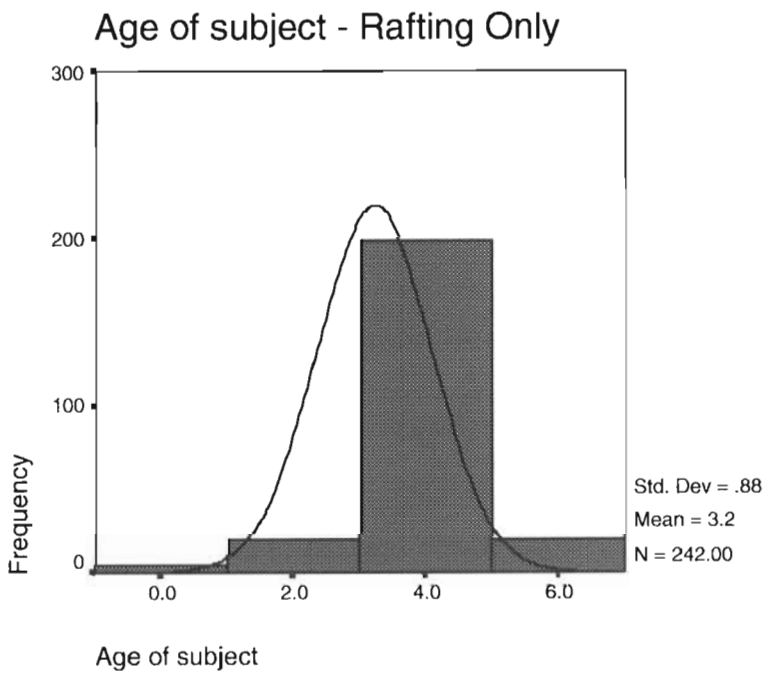


Figure 5.32 Age Distribution of Subjects – Sailing Participants Only (n = 181).

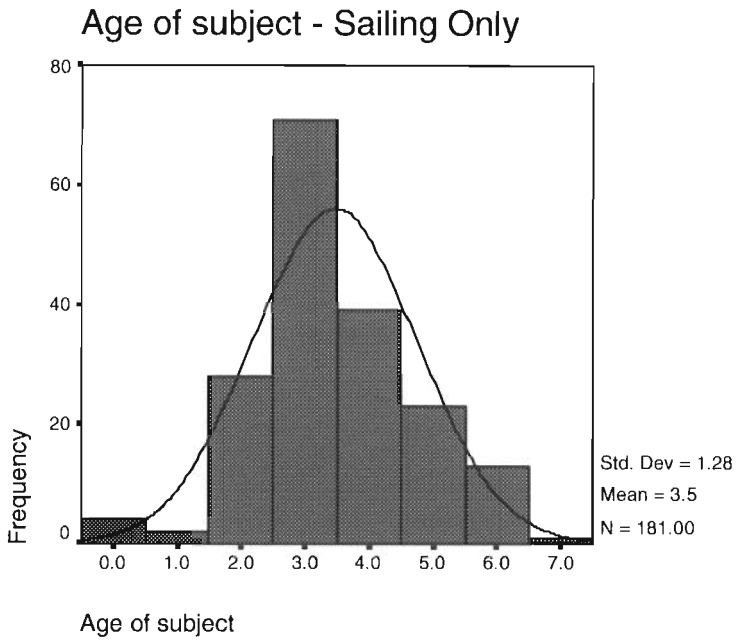
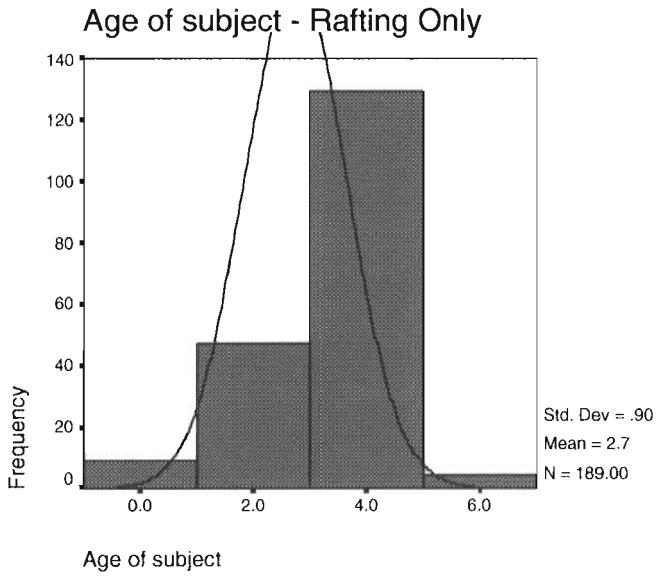


Figure 5.33 Age Distribution of Subjects – Bungy Participants Only (n = 189)



5.9.6.3 Activity by Occupation

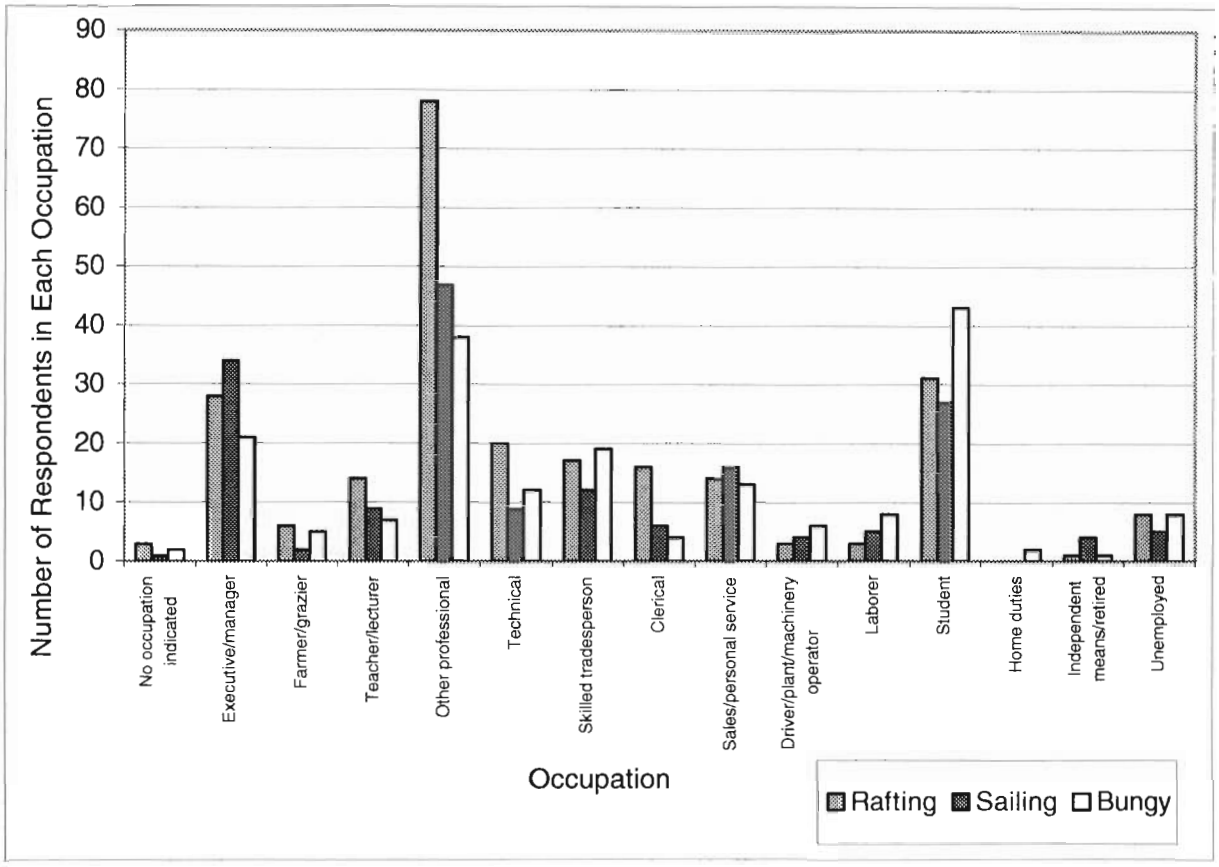
Table 5.47 shows that many respondents, list "other professional" as their occupation. In fact, 32.2%, 26% and 20.1% of respondents for rafting, sailing and bungy jumping respectively, made up this category. The frequency of this category can also be seen in

Figure 5.34, which shows that more respondents were in this category for each activity except for bungy jumping, which has "student" as the largest group (22.8%). Again this is consistent with the younger age higher risk group for bungy jumping.

Table 5.48 Frequency table – Occupation by Activity.

	Frequency			Percent			Valid Percent			Cumulative Percent		
Occupation	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy
No occupation indicated	3	1	2	1.2	.6	1.1	1.2	.6	1.1	1.2	.6	1.1
Executive/manage	28	34	21	11.6	18.8	11.1	11.6	18.8	11.1	12.8	19.3	12.2
Farmer/grazier	6	2	5	2.5	1.1	2.6	2.5	1.1	2.6	15.3	20.4	14.8
Teacher/lecturer	14	9	7	5.8	5.0	3.7	5.8	5.0	3.7	21.1	25.4	18.5
Other professional	78	47	38	32.2	26.0	20.1	32.2	26.0	20.1	53.3	51.4	38.6
Technical	20	9	12	8.3	5.0	6.3	8.3	5.0	6.3	61.6	56.4	45.0
Skilled tradesperson	17	12	19	7.0	6.6	10.1	7.0	6.6	10.1	68.6	63.0	55.0
Clerical	16	6	4	6.6	3.3	2.1	6.6	3.3	2.1	75.2	66.3	57.1
Sales/personal service	14	16	13	5.8	8.8	6.9	5.8	8.8	6.9	81.0	75.1	64.0
Driver/plant operator	3	4	6	1.2	2.2	3.2	1.2	2.2	3.2	82.2	77.3	67.2
Labourer	3	5	8	1.2	2.8	4.2	1.2	2.8	4.2	83.5	80.1	71.4
Student	31	27	43	12.8	14.9	22.8	12.8	14.9	22.8	96.3	95.0	94.2
Home duties	0	0	2	0	0	1.1	0	0	1.1	0	0	95.2
Independent means/retired	1	4	1	.4	2.2	.5	.4	2.2	.5	96.7	97.2	95.8
Unemployed	8	5	8	3.3	2.8	4.2	3.3	2.8	4.2	100.0	100.0	100.0
Total	242	181	189	100.0	100.0	100.0	100.0	100.0	100.0			

Figure 5.34 Occupation by Activity



5.9.6.4 Activity by Country of Residence

Table 5.27 shows that for rafting, most of the participants (57.4%) came from the UK and Ireland. Table 5.28 shows that for sailing, the majority of participants (54.1%) were Australians. It can also be seen that in Table 5.29, bungy jumpers are more evenly spread, with 38.1% being Australian, and 40.2% coming from UK and Ireland.

Figure 5.35 shows that for the Australians and Americans, there seems to be a reasonably even spread in the number of participants from these countries choosing to do the three activities. The participants from the UK and Ireland are less represented in the sailing, but more interested in whitewater rafting. The New Zealanders and Canadians represent the smaller sample sizes (n = 7 and n = 20 respectively), and so the findings should be treated as not being conclusive.

Table 5.49 Number of Respondents by Country of Origin – Whitewater Rafting (n = 242).

Country	Frequency	Percent	Cumulative Percent
Australia	68	28.1	28.1
USA	31	12.8	40.9
Canada	2	.8	41.7
UK and Ireland	139	57.4	99.2
New Zealand	2	.8	100.0
Total	242	100.0	

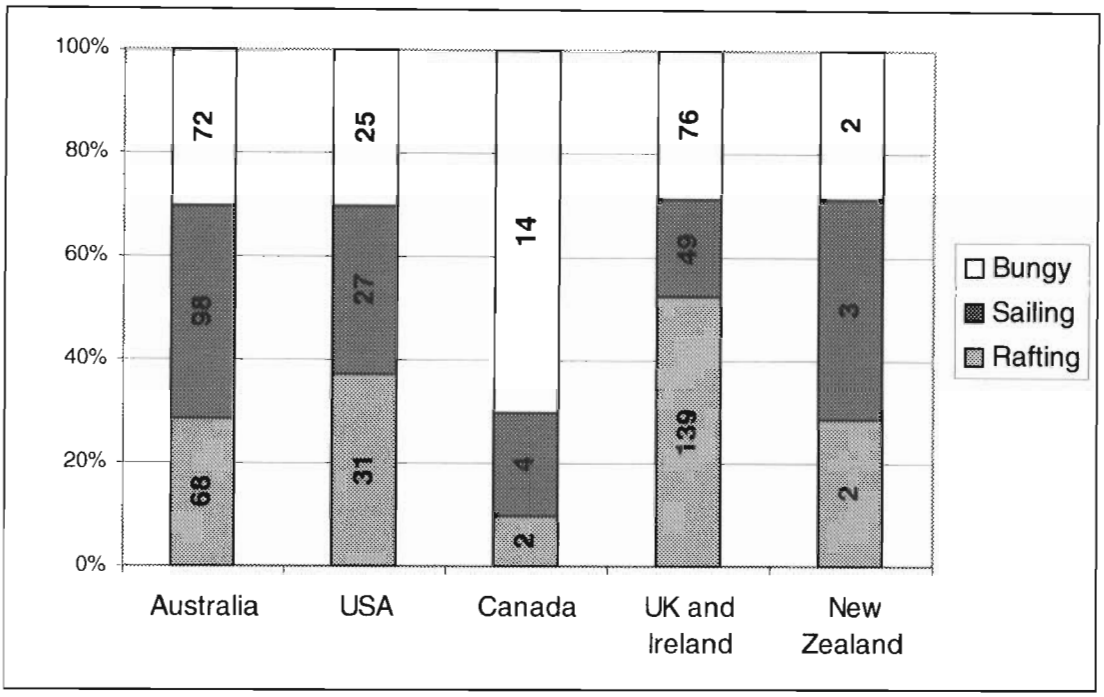
Table 5.50 Number of Respondents by Country of Origin – Sailing (n = 181).

Country	Frequency	Percent	Cumulative Percent
Australia	98	54.1	54.1
USA	27	14.9	69.1
Canada	4	2.2	71.3
UK and Ireland	49	27.1	98.3
New Zealand	3	1.7	100.0
Total	181	100.0	

Table 5.51 Number of Respondents by Country of Origin – Bungy Jumping (n = 189).

Country	Frequency	Percent	Cumulative Percent
Australia	72	38.1	38.1
USA	25	13.2	51.3
Canada	14	7.4	58.7
UK and Ireland	76	40.2	98.9
New Zealand	2	1.1	100.0
Total	189	100.0	

Figure 5.35 Number of Participants in Each Activity by Nationality



5.9.6.4.1 Activity by Australian Post-Code

For the domestic Australian participants who are resident, there is a tendency for sailing to attract a wider market area and bungy to be more localised to Queensland and nearby New South Wales, as can be seen in Table 5.52. Bungy jumping is possibly less weather dependant than sailing and rafting and more widely available at other destinations, so it maybe that this particular activity is more dependant on local advertising and market share. This is also consistent with different geographic market thresholds for each activity with sailing the largest and bungy jumping the smallest threshold.

Table 5.52 Activity by Australian State for Australian Residents.			
State	Raft	Sail	Bungy
New South Wales	27	33	15
Victoria	11	15	8
Queensland	26	36	36
South Australia	2	6	3
West Australia	0	4	1
Tasmania	0	0	1
Sub-Total	66	94	64
Non Australian	176	87	125
Total	242	181	189

5.9.6.5 Activity by Income

There appear to be no apparent major differences in the incomes of the respondents when categorised by activity. Rafting is slightly over represented in the $20,001-$40,000, $40,001-$60,000 and $60,001-$80,000 categories, but by no more than 21 respondents. This can be seen in Figure 5.21 and Table 5.26.

Figure 5.36 Income of Participants by Activity.

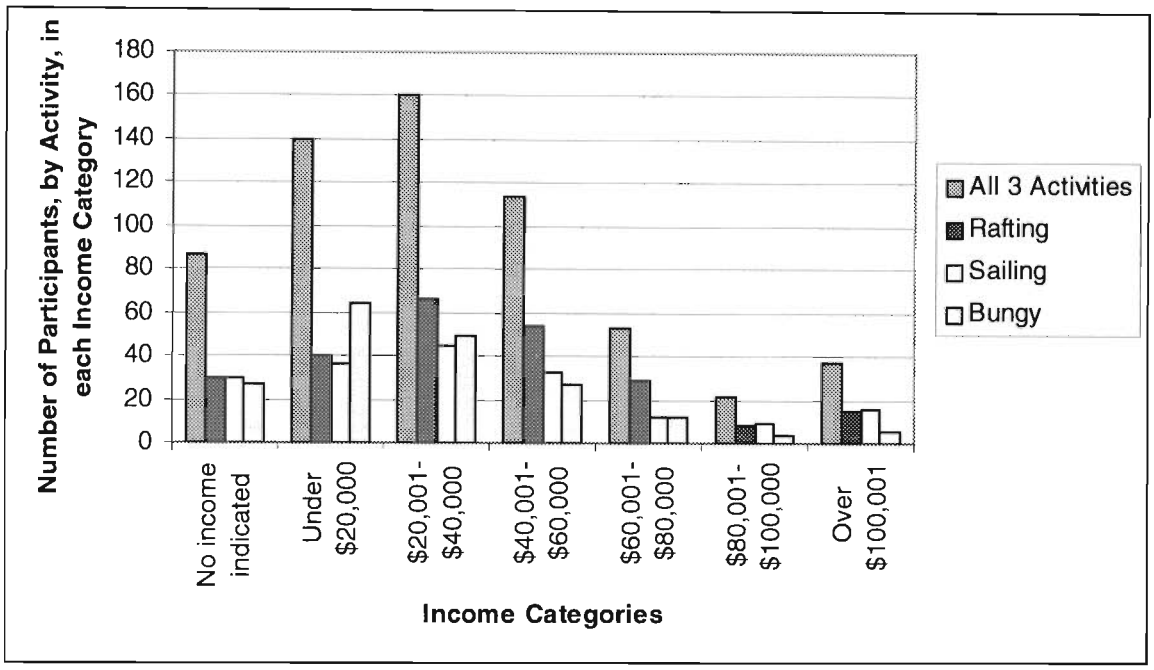


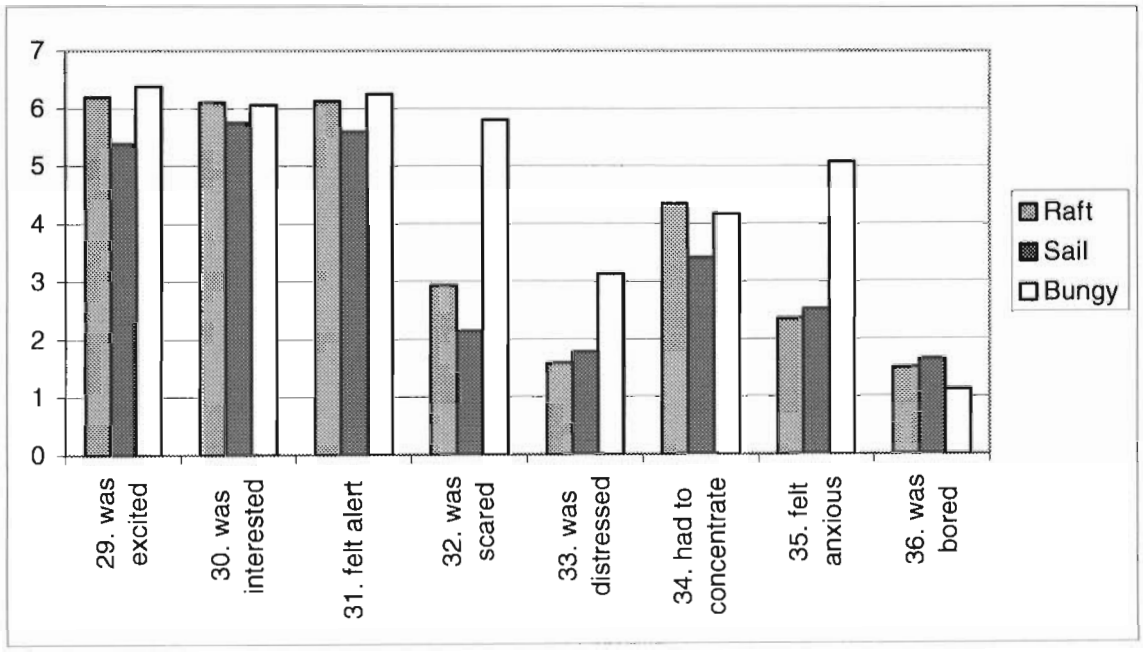
Table 5.53 Frequency table – Income by Activity.

	Frequency			Percent			Valid Percent			Cumulative Percent		
Income	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy	Raft	Sail	Bungy
No income indicated	30	30	27	12.4	16.6	14.3	12.4	16.6	14.3	12.4	16.6	14.3
Under $20,000	40	36	64	16.5	19.9	33.9	16.5	19.9	33.9	28.9	36.5	48.1
$20,001-$40,000	66	45	49	27.3	24.9	25.9	27.3	24.9	25.9	56.2	61.3	74.1
$40,001-$60,000	54	33	27	22.3	18.2	14.3	22.3	18.2	14.3	78.5	79.6	88.4
$60,001-$80,000	29	12	12	12.0	6.6	6.3	12.0	6.6	6.3	90.5	86.2	94.7
$80,001-$100,000	8	9	4	3.3	5.0	2.1	3.3	5.0	2.1	93.8	91.2	96.8
Over $100,001	15	16	6	6.2	8.8	3.2	6.2	8.8	3.2	100.0	100.0	100.0
Total	242	181	189	100.0	100.0	100.0	100.0	100.0	100.0			

5.9.6.6 Activity by Post-Event Emotions

Figure 5.37 shows the differences in the way in which the respondents from the three adventure tourism activities agreed or disagreed with the statements regarding their emotions after the activity had taken place. While all three groups agreed that they were excited, interested and alert, only the bungy jumping participants felt scared or anxious. None of the three groups appear to have felt either distressed or bored. Only the rafting and bungy participants felt that they needed to concentrate during the activity.

Figure 5.37 Activity by Post-Event Emotions.



5.9.6.7 Activity by Post-Event Perceptions

Tables 5.54, 5.55 and 5.56 show the descriptive statistics for the whitewater rafting, sailing and bungy jumping participants and the mean results in Figure 5.38. The apparent differences in the way that the participants from these three adventure tourism activites perceive the experience after the event are based on the way they have been scared (bungy jumping participants are the only ones who agree with this statement), have been

physically challenged (sailing participants have not been physically challenged) and their level of familiarity with the equipment (bungy jumping participant were the only ones who were not familiar with the equipment used).

Table 5.54 Descriptive Analysis of Post-Event Perception Items – Rafting (n = 242).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
37	242	6	1	7	6.50	.93	.87	-2.539	.156	8.064	.312
38	242	6	1	7	6.48	.95	.90	-2.282	.156	6.024	.312
39	242	6	1	7	6.70	.77	.59	-3.598	.156	16.333	.312
40	242	6	1	7	6.45	1.02	1.05	-2.332	.156	5.892	.312
41	242	6	1	7	6.41	.99	.98	-1.988	.156	1.376	.312
42	242	6	1	7	2.60	1.80	3.24	1.057	.156	.164	.312
43	242	6	1	7	6.60	.78	.61	-2.130	.156	6.907	.312
44	242	6	1	7	4.40	1.75	3.05	-.095	.156	-.822	.312
45	242	6	1	7	6.13	1.30	1.69	-1.286	.156	.450	.312
46	242	6	1	7	6.49	.99	.99	-2.183	.156	4.413	.312
57	242	6	1	7	4.55	1.78	3.15	-.196	.156	-.716	.312
48	242	6	1	7	5.73	1.37	1.87	-.797	.156	-.261	.312
49	242	6	1	7	2.57	1.88	3.52	1.232	.156	.462	.312
50	242	6	1	7	1.73	1.58	2.48	2.340	.156	4.546	.312
51	242	6	1	7	5.41	1.43	2.05	-.337	.156	-.917	.312
52	242	6	1	7	4.52	1.77	3.15	-.043	.156	-1.044	.312
53	242	6	1	7	3.60	1.79	3.22	.434	.156	-.630	.312
56	242	6	1	7	3.24	1.82	3.31	.548	.156	-.600	.312
55	242	6	1	7	6.52	.99	.99	-2.838	.156	9.581	.312
54	242	6	1	7	4.70	1.89	3.57	-.328	.156	-.950	.312
47	242	6	1	7	5.50	1.73	3.01	-.790	.156	-.408	.312

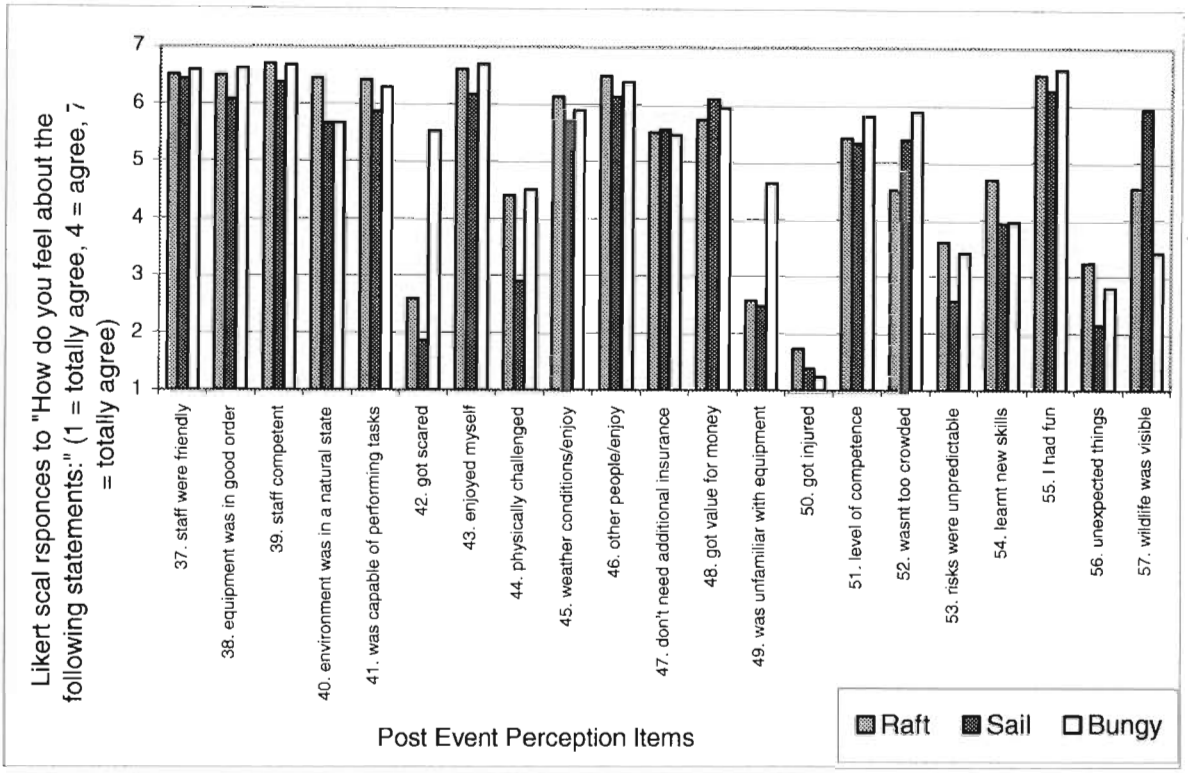
Table 5.55 Descriptive Analysis of Post-Event Perception Items – Sailing (n = 181).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
37	181	6	1	7	6.42	1.05	1.11	-2.145	.181	5.141	.359
38	181	6	1	7	6.07	1.27	1.61	-1.218	.181	.562	.359
39	181	6	1	7	6.37	1.09	1.19	-1.818	.181	2.731	.359
40	181	6	1	7	5.66	1.47	2.16	-.782	.181	-.294	.359
41	181	6	1	7	5.87	1.50	2.25	-1.270	.181	.966	.359
42	181	6	1	7	1.86	1.54	2.38	2.108	.181	3.725	.359
43	181	6	1	7	6.16	1.34	1.79	-1.760	.181	2.864	.359
44	181	6	1	7	2.90	1.74	3.03	.752	.181	-.244	.359
45	181	6	1	7	5.71	1.61	2.61	-.998	.181	-.155	.359
46	181	6	1	7	6.13	1.55	2.39	-1.854	.181	2.645	.359
57	181	6	1	7	5.94	1.50	2.26	-1.419	.181	1.315	.359
48	181	6	1	7	6.10	1.32	1.73	-1.425	.181	1.482	.359
49	181	6	1	7	2.47	2.05	4.21	1.259	.181	.216	.359
50	181	6	1	7	1.39	1.39	1.94	3.577	.181	11.244	.359
51	181	6	1	7	5.32	1.71	2.93	-.664	.181	-.396	.359
52	181	6	1	7	5.40	1.71	2.93	-.745	.181	-.478	.359
53	181	6	1	7	2.56	1.77	3.15	1.089	.181	.273	.359
56	181	6	1	7	2.14	1.68	2.81	1.693	.181	2.057	.359
55	181	6	1	7	6.25	1.15	1.31	-1.296	.181	.284	.359
54	181	6	1	7	3.93	2.21	4.88	.148	.181	-1.360	.359
47	181	6	1	7	5.55	1.81	3.27	-1.043	.181	.162	.359

Table 5.56 Descriptive Analysis of Post-Event Perception Items – Bungy (n = 189).

Item Number	N	Range	Minimum	Maximum	Mean	Standard Deviation	Variance	Skewness		Kurtosis	
								Statistic	Std. Error	Statistic	Std. Error
37	189	6	1	7	6.58	1.04	1.07	-2.973	.177	9.720	.352
38	189	6	1	7	6.62	.93	.86	-2.860	.177	9.059	.352
39	189	6	1	7	6.68	.86	.74	-3.296	.177	12.727	.352
40	189	6	1	7	5.66	1.61	2.61	-.853	.177	-.376	.352
41	189	6	1	7	6.29	1.31	1.73	-2.071	.177	4.195	.352
42	189	6	1	7	5.53	1.96	3.82	-1.044	.177	-.187	.352
43	189	6	1	7	6.69	.99	.97	-3.956	.177	16.474	.352
44	189	6	1	7	4.51	2.24	5.02	-.237	.177	-1.371	.352
45	189	6	1	7	5.89	1.66	2.75	-1.460	.177	1.308	.352
46	189	6	1	7	6.39	1.42	2.00	-2.597	.177	6.265	.352
57	189	6	1	7	3.43	2.28	5.19	.436	.177	-1.262	.352
48	189	6	1	7	5.94	1.61	2.60	-1.402	.177	.967	.352
49	189	6	1	7	4.62	2.13	4.55	-.300	.177	-1.263	.352
50	189	6	1	7	1.23	1.00	1.00	4.853	.177	23.765	.352
51	189	6	1	7	5.80	1.53	2.34	-1.036	.177	.274	.352
52	189	6	1	7	5.88	1.58	2.51	-1.277	.177	.816	.352
53	189	6	1	7	3.41	2.14	4.56	.556	.177	-1.010	.352
56	189	6	1	7	2.79	2.13	4.55	.935	.177	-.516	.352
55	189	6	1	7	6.62	1.06	1.12	-3.262	.177	11.151	.352
54	189	6	1	7	3.95	2.30	5.27	.087	.177	-1.412	.352
47	189	6	1	7	5.46	2.10	4.42	-1.051	.177	-.250	.352

Figure 5.38 Post-Event Perceptions by Activity.



As with the description of the expectations of the whole group, the expectations for respondents in each activity are displayed next to the post-event perception. In this way it can be seen if the respondents expectations have been met, surpassed, or not met. From this, inference may be made as to the level of satisfaction attained with each activity.

In section 5.1.4 of this study, the pre-event expectations and post-event perceptions for the whole group were discussed. The only two pre-event perceptions in this analysis that the 612 respondents, on average, did not agree with were: "I will get injured" and "the risks associated with this activity will be unpredictable". It is interesting to see that when the three groups are considered in isolation (Figures 5.39, 5.40 and 5.41), that these aspects change. For example, while the rafting participants also did not agree with the statement "today, I expect I will get injured", the only other pre-event statement they did not agree with was "wildlife will be visible".

Figure 5.39 Pre-Event Expectations and Post-Event Perception for Rafting Respondents (n = 242).

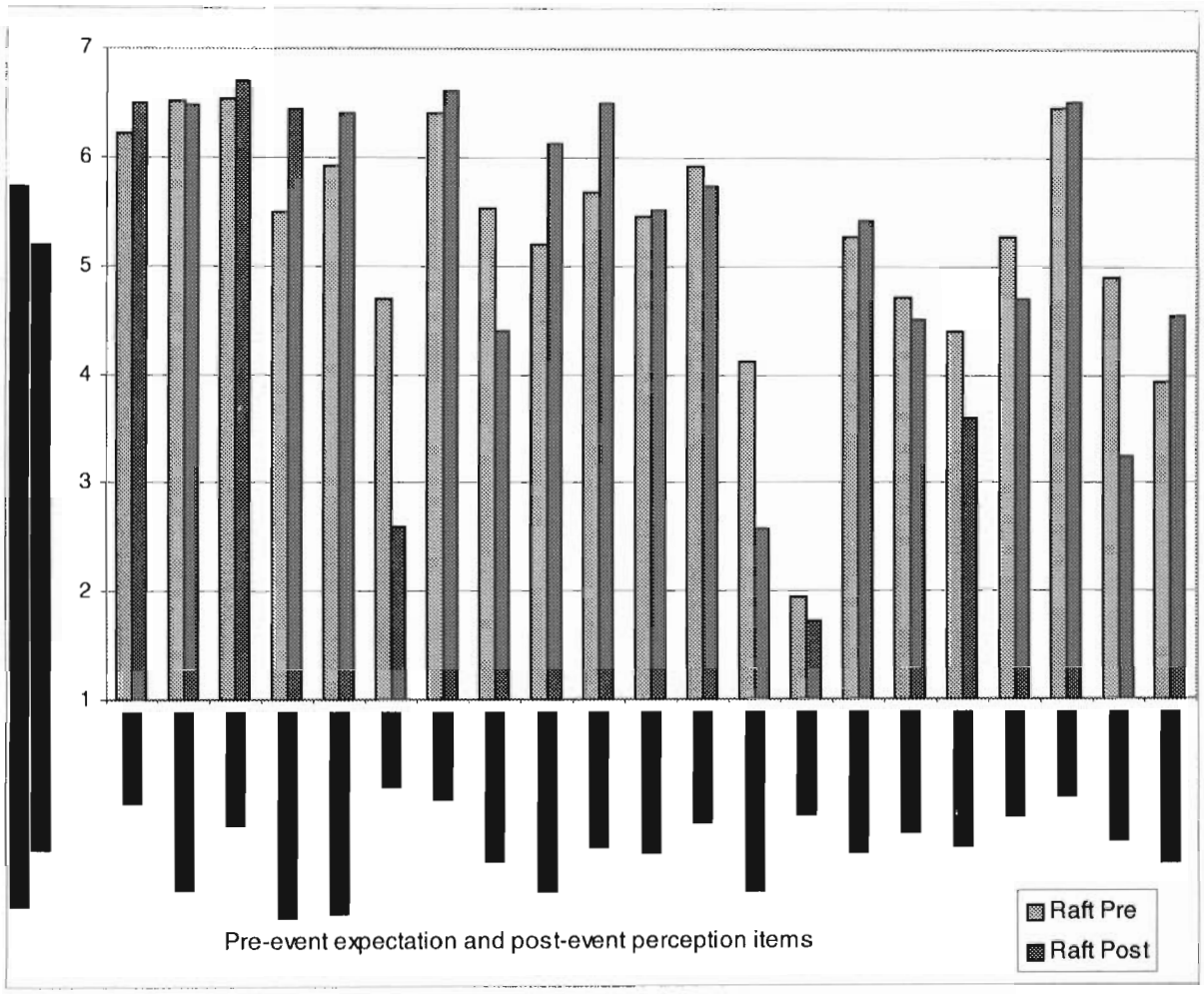


Figure 5.40 Pre-Event Expectations and Post-Event Perception for Sailing Respondents (n = 181).

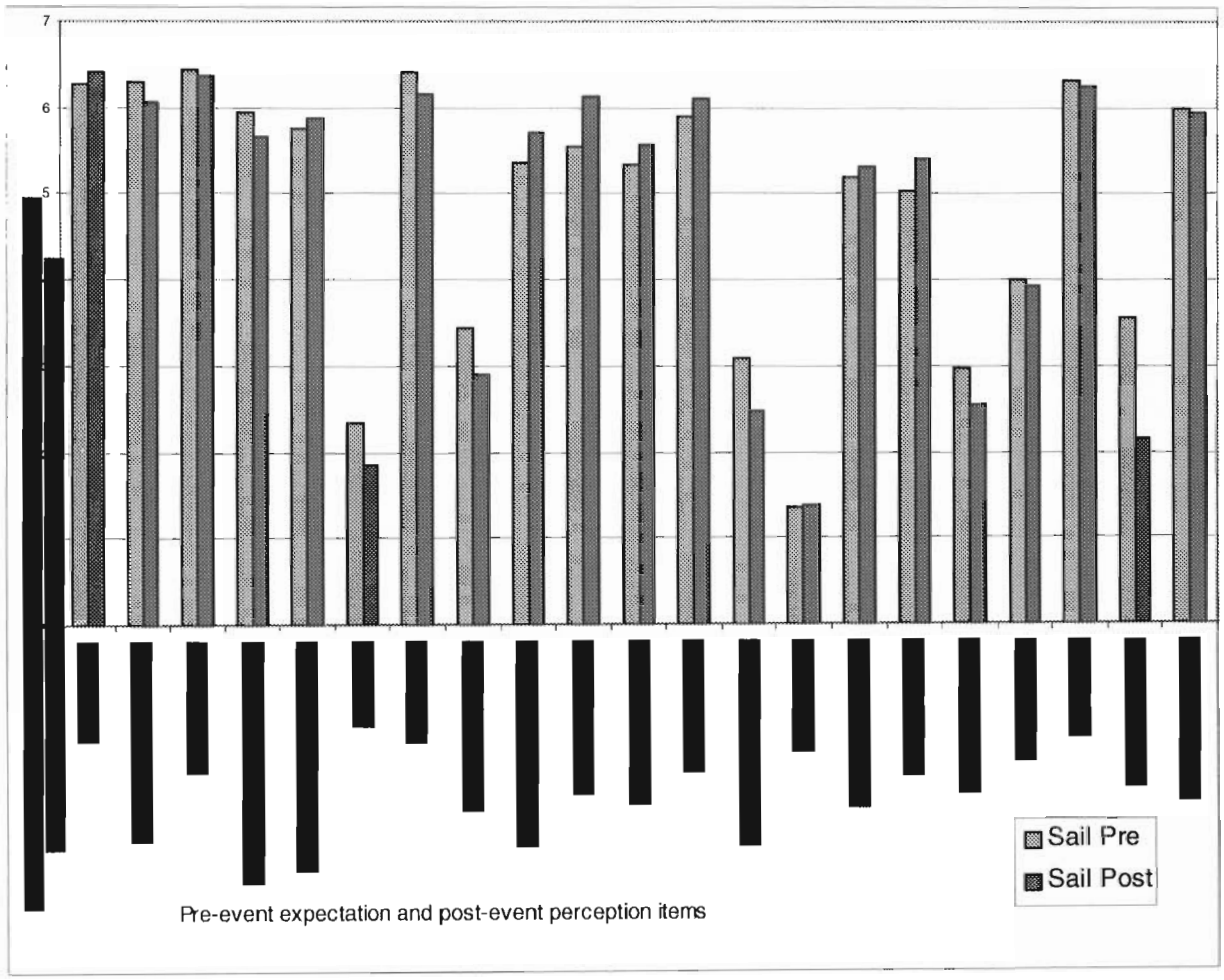


Figure 5.41 Pre-Event Expectations and Post-Event Perception for Bungy Respondents (n = 189).

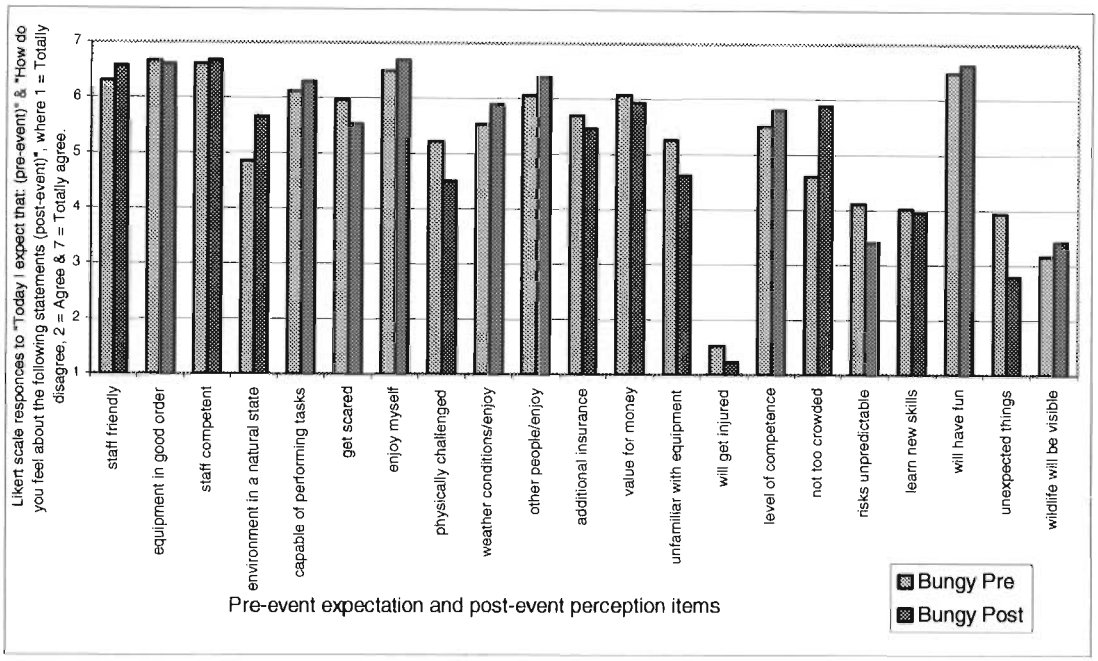
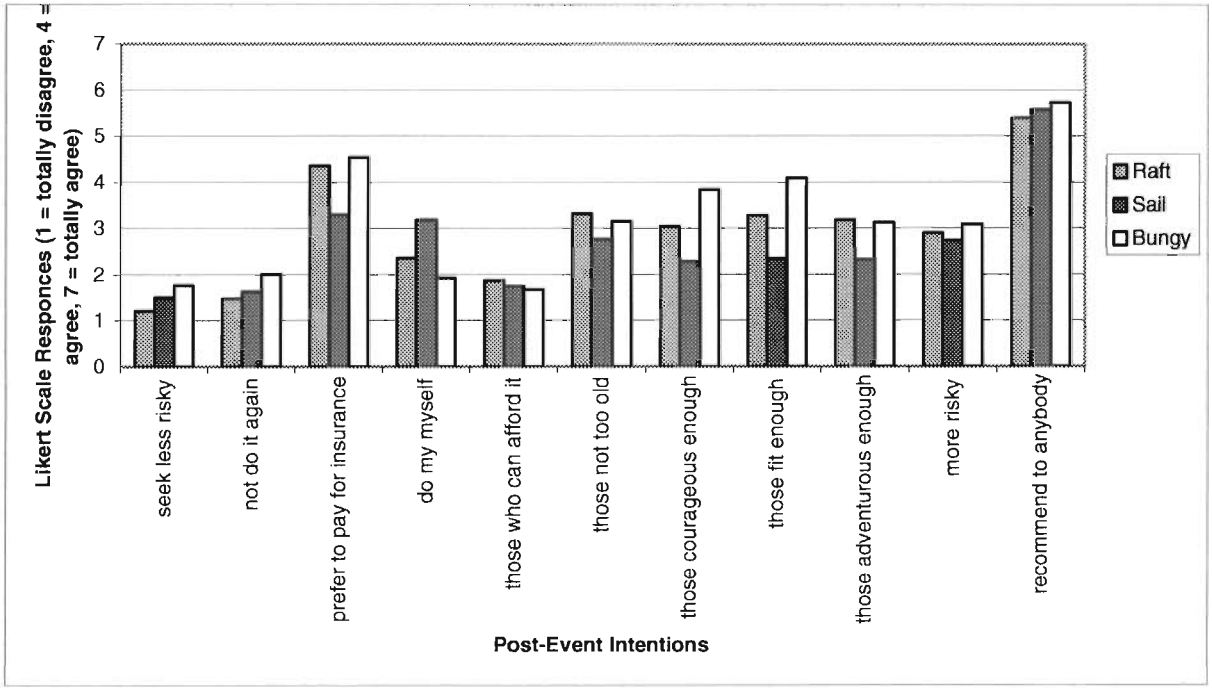


Figure 5.42 Activity by Post-Event Intentions



5.9.7 Summary of Chapter 5

In summary, Chapter 1 stated the problem and specific aims of the study, Chapter 2 reviewed the relevant literature, and a conceptual framework was developed in Chapter 3. Chapter 4 developed the survey instrument designed to collect data relevant to the hypotheses stated in Chapter 4. This current chapter (Chapter 5) has conducted the preliminary analysis of the data including testing hypothesis one (H1: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on the adventure tourism activity selected), and hypothesis two (H2: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their level of prior experience in the adventure tourism activity selected) and hypothesis three (H3: The degree to which adventure tourists want to undertake a perceived degree of risk will vary depending on their country of origin). It was found that the three groups of adventure tourists (whitewater rafting participants, sailing participants, and bungy participants) did indeed have significantly different attitudes towards experiencing risk as a motivation, and so can be considered as three distinct groups in regard to perceived risk. It was also found that there were no significant differences between the participants in regard to levels of prior experience, or their country of origin.

6 Chapter 6: Analysis of Motivation and Satisfaction

Of the five aims stated in section 1.3 of this study, the second and third seek to understand the motivations and satisfaction levels of adventure tourists engaging in various adventure tourism activities. This chapter will now address these two specific aims by testing hypotheses four and five. From this analysis, significant conclusions about understanding the way in which adventure tourism participants view perceived risk, in conjunction with other motivations, may be drawn. Additionally, the levels of satisfaction attributed to adventure tourists engaging in the three adventure tourism activities (whitewater rafting, sailing and bungy jumping) will provide a deeper understanding of how these tourists feel about the experience. The information gained from conducting the analysis in this chapter will then be used to address the fifth aim of this study which is to develop specific marketing strategies for Australian domestic adventure tourists and inbound adventure tourists who have English as a first language.

6.1 Testing Hypothesis 4: Motivation

The initial analysis in this section will be conducted by regarding the 15 motivational items as being independent.

6.1.1 Independent Motivational Items

H4: Motivations to undertake adventure tourism vary between different adventure tourism activities.

It has already been shown in the testing of hypothesis 1 that respondents from the three adventure tourism activities view the motivation of risk quite differently. Hypothesis 4 will now test to see if there are differences in the 15 motivational items. As such, each independent sample are now combined as one sample on the basis of risk, and the analysis of each sample is independent. Consequently, given the differences in the perceived risk associated with each activity a combined sample divided for analysis, on the basis of component scores, is considered less valid. It should be noted that item

number 8 (to experience risk) is to be included in this motivational analysis so that it may be compared to the 14 other motivational items. Table 6.1 shows the descriptive statistics for the three individual groups (sailing, rafting and bungy) as well as T tests for each group comparison (sail/raft, raft/bungy and sail/bungy) based on the 1-7 Likert responses to the 15 motivational items.

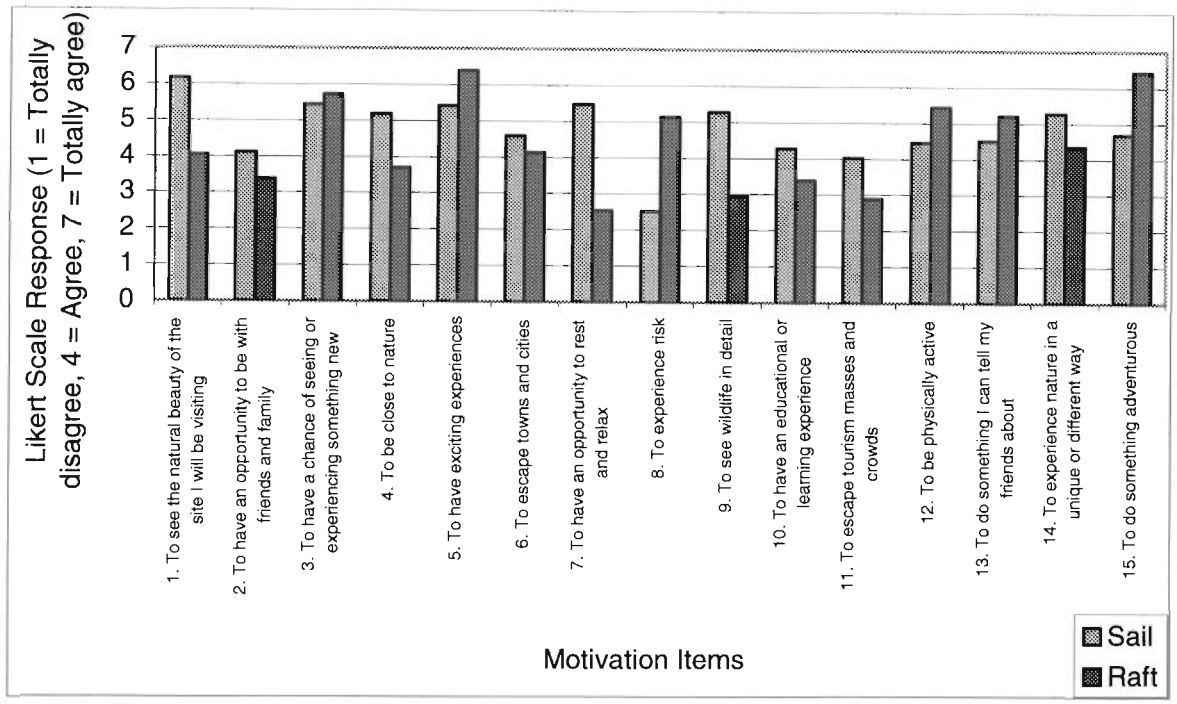
Table 6.1 Testing Differences in the 15 Motivational Items by Activity.

	Mean			Standard Deviation			Sail/Raft		Raft/Bungy		Sail/Bungy	
Motive Item	Raft	Sail	Bungy	Raft	Sail	Bungy	T Crit	Sig.	T Crit	Sig.	T Crit	Sig.
1	4.05	6.15	2.95	1.61	1.36	1.79	14.2	.000***	6.6	.000***	19.2	.000***
2	3.39	4.13	2.70	2.01	2.06	1.80	3.6	.000***	3.7	.000***	7.0	.000***
3	5.73	5.45	6.08	1.76	1.75	1.66	-1.6	.101	-2.0	.038	-3.5	.000***
4	3.71	5.20	2.50	1.57	1.67	1.71	9.3	.000***	7.6	.000***	15.3	.000***
5	6.39	5.42	6.66	1.12	1.53	1.00	-7.5	.000***	-2.5	.010*	-9.2	.000***
6	4.13	4.60	2.88	1.84	2.04	2.03	2.4	.014*	6.6	.000***	8.1	.000***
7	2.55	5.47	2.01	1.82	1.64	1.68	17.0	.000***	3.1	.002**	20.0	.000***
8	5.13	2.52	6.18	1.77	1.75	1.43	-15.1	.000***	-6.6	.000***	-22.0	.000***
9	2.95	5.29	1.95	1.63	1.59	1.46	14.7	.000***	6.5	.000***	21	.000***
10	3.41	4.28	3.36	1.70	1.88	2.17	4.9	.000***	.258	.796	4.3	.000***
11	2.90	4.03	2.14	1.60	1.98	1.58	6.4	.000***	4.9	.000***	10.1	.000***
12	5.45	4.46	4.70	1.49	1.72	2.00	-6.3	.000***	4.4	.000***	-1.2	.208
13	5.21	4.52	5.98	1.81	1.89	1.55	-3.8	.000***	-4.6	.000***	-8.1	.000***
14	4.35	5.28	3.25	1.81	1.57	2.12	5.5	.000***	5.8	.000***	10.4	.000***
15	6.43	4.69	6.61	1.02	1.76	0.96	-12.7	.000***	-1.9	.052	-13.0	.000***

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Figure 6.1 shows the graphical representation of the mean responses for the sailing and rafting participants to the 15 motivational items. In this analysis each motivational item is compared independently of all other variables. This is an important distinction because it assumes no relationship between the motivations. As a starting point for the analysis, this is a reasonable assumption. However, further analysis is also needed that can draw upon the multivariate relationships that may exist between motivations and this will be done in section 6.1.2.

Figure 6.1 Comparison of Motivations for Sailing (n = 181) and Rafting (n = 242) Participants.



Under the assumption that each motivation is defined adequately enough to exist independently, it appears that there are many differences between the motivations of each adventure tourism sample. The differences are confirmed in Table 6.1 where it can be seen that 14 of the 15 motivational variables measured are significantly (to a confidence level of 95%) different between the sailing and rafting samples.

The sailing participants are more motivated by variables 1, 2, 4, 6, 7, 9, 10, 11 and 14. This suggests that these participants are more motivated by learning about and being closer to the natural environment whilst socialising and getting away from the built environment. These same participants are less motivated by variables 5, 8, 12, 13 and 15 which place more emphasis on the adventure, risk and challenge associated with the activity.

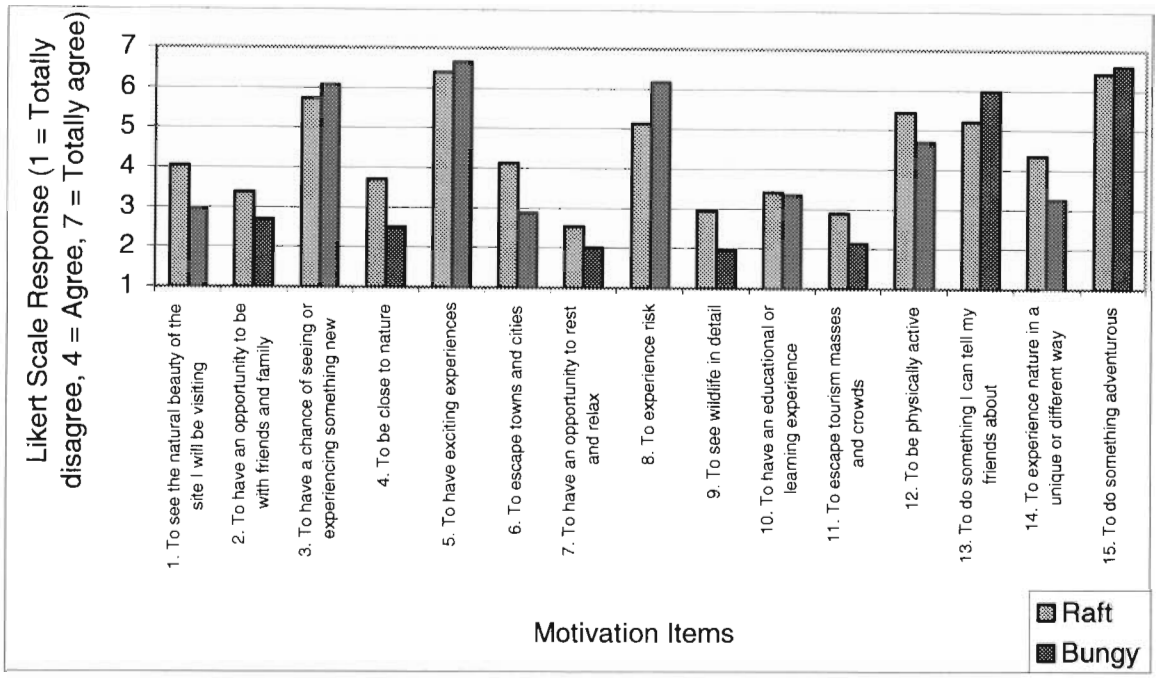
The one variable that is both significantly different, and on opposite sides of the Likert scale, in which the rafting participants agree, and the sailing participants disagree, is "The reason I chose to do this activity today was to experience risk". The whitewater rafting

participants want to experience risk, whereas the sailing participants do not. Three other motivations that are different in both these ways (significantly different and on opposite sides of the Likert scale) are "To be close to nature", "To have an opportunity to rest and relax", and "To see wildlife in detail". For these three motivations, the sailing participants agreed with the statement, while the rafting participants disagreed. This tends to suggest that rafting participants are less interested in the pleasantries of the activities, and more interested in the risk the activity offers. This is in line with Figure 5.19 which suggests that sailing participants rate fairly low on the "risk as a motivation" scale, with a mean score of 2.52 on the 1–7 Likert scale, whereas the rafting participants rated a mean score of 5.14.

As 14 out of the 15 motivational items tested are significantly different at a minimum of 95% confidence level (as can be seen in Table 6.1), it can be said that the motivations between sailing and rafting participants are significantly different.

The next two groups to be tested with Hypothesis 4 are the rafting and bungy jumping participants. Here, 12 out of the 15 motivational items are significantly different at a 95% confidence level. This can be seen in the "Raft/Bungy" column of Table 6.1, and graphically in Figure 6.2. The only three variables in which there is a agree/disagree finding were where rafting participants agreed with the statements "The reason I chose to do this activity today was to see the natural beauty of the site I will be visiting" (rafting mean score of 4.05, bungy mean score of 2.95), "The reason I chose to do this activity today was to escape towns and cities" (rafting mean score of 4.13, bungy mean score of 2.88), and lastly "The reason I chose to do this activity today was to experience nature in a unique and different way" (rafting mean score of 4.35, bungy mean score of 3.25).

Figure 6.2 Comparison of Motivations for Rafting (n = 242) and Bungy (n = 189) Participants.



Once again, it is apparent that the motivations for these two groups of adventure tourists differ not only in the way that they desire to experience risk, but also in the way that they recognize other motivations. For example, for the whitewater rafting subjects, the motivational items that best describe the reasons for their participation include motivations 1, 2, 4, 6, 7, 9, 11, 12, 14 and 15. This suggests that these participants are more inclined to seek out nature and escape the built environment in a social setting.

Lastly, Hypothesis 4 needs to be tested against the sailing and bungy jumping groups of participants. Once this analysis has been done, each of the possible iterations for the three groups will have been tested and the null hypothesis either rejected or accepted.

Table 6.1 shows that only one of the fifteen motivational items tested is not significantly different. This is item number 12 which is "to be physically active". It appears that both groups want to be physically active when participating in their respective adventure tourism activity. However, when comparing the three iterations of testing Hypothesis 4 (sailing/rafting, rafting/bungy, sailing/bungy), the sailing and bungy participants show the

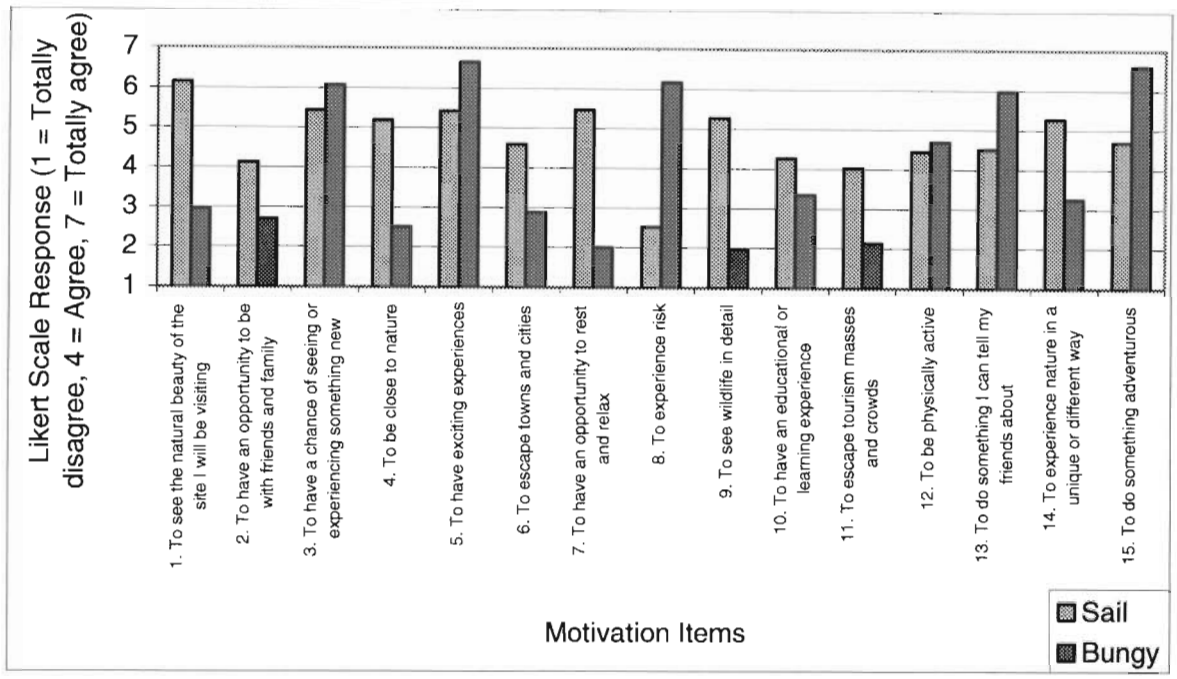
most differences in regard to their motivations, because each of the 14 significantly different variables measured are different at a 99.9% confidence level.

It can be seen in Figure 6.1 that when compared to bungy participants, those subjects going sailing report being more motivated by variables 1, 2, 4, 6, 7, 9, 10, 11 and 14. Once again this suggest a softer approach to the adventure experience (social, relaxing, escape towns and cities) whilst the bungy subjects are more inclined to report motivations relating to experiencing risk, having new and exciting experiences, and doing something adventurous.

The differences between the individual motives (rafting to bungy) are less extreme than the previous comparison (rafting to sailing) and this is as might be expected, because on the scale of risk (as shown in Figure 5.19), rafting and bungy are much closer together than rafting and sailing. Consequently, the larger differences tend not to be across the agree/disagree divide. For example, the greatest difference is "to escape towns and cities", where this is much more of a motive for rafting than bungy

Again this is consistent with the risk continuum described in Figure 5.19, where it is shown that the sailing participants view their activity as for less risky than bungy participants. That is to say, the greatest motivational separation exists between sailing and bungy participants.

Figure 6.3 Comparison of Motivations for Sailing (n = 181) and Bungy (n = 189) Participants.



In conclusion, it may be said that motivations do indeed vary between activities with different levels of perceived risk, and therefore, the null hypothesis associated with Hypothesis 4 may be rejected.

6.1.2 Interdependent Motivations

Following the analysis of motivations conducted in section 6.1.1, a question does arise as to whether the motivations of individuals are independent as discussed previously. It is not clear whether people are motivated by one single motive or groups of motives that interrelate in a potentially complex manner. Consequently, each of the motivations surveyed are possibly interrelated in some way. From the independent analysis done in section 6.1.1, there are strong indicators of relationships that may not have been determined with the previous analysis, or which may measure the relationship suggested previously. For example, the sailing participants appear to be grouped by a high difference between the other two activities by being closer to nature, socialising and being away from everyday life. The rafting participants appear to be more adventurous

while also wanting to escape everyday life while the bungy jumpers are more inclined to seek risk.

One way of assessing the differences between the samples in regard to interdependent motivations is to conduct a Principal Component Analysis (PCA) for each sample. PCA is capable of summarising the motivational variables by creating grouped measures (components) that in themselves may better describe the interdependency of the 15 motivations for each sample. This analysis has been conducted using SPSS V10.0. Eigenvalues of 1 or more have been used as the cut off measure determining significant components. A Varimax Rotation with Kaiser Normalisation has been used to maximise the differences between the components

Tables 6.2 and 6.3 show the PCA for the 242 whitewater rafting participants. It can be seen that for the 15 motivational items, four components have emerged that explain 57.8% of the differences. The first is made up of items 1 (To see the natural beauty of the site I will be visiting), 4 (To be close to nature), 9 (To see wildlife in detail), 10 (To have an educational or learning experience) and 14 (To experience nature in a unique or different way). These items have been collectively labelled "nature" in Table 6.2. The three other components have also been assigned labels according to the general characteristics of the loaded items. These components have been labelled "Risk", "Escape" and "Novelty".

Table 6.2 Principal Component Analysis of 15 Motivational Items for Rafting Participants (n = 242).

Item	Component			
	1. Nature	2. Risk	3. Escape	4. Novelty
1. To see the natural beauty of the site I will be visiting	**.768**	-.166	.209	.106
2. To have an opportunity to be with friends and family	.251	-.014	.499	-.145
3. To have a chance of seeing or experiencing something new	.271	.037	-.386	**.618**
4. To be close to nature	**.732**	-.083	.236	.215
5. To have exciting experiences	.018	.312	-.058	**.774**
6. To escape towns and cities	.055	-.068	**.717**	.445
7. To have an opportunity to rest and relax	.101	-.031	**.626**	-.207
8. To experience risk	.026	**.758**	-.036	.083
9. To see wildlife in detail	**.760**	.173	.214	-.129
10. To have an educational or learning experience	**.586**	.275	.025	-.107
11. To escape tourism masses and crowds	.199	.044	**.581**	-.085
12. To be physically active	.070	**.730**	.236	.194
13. To do something that I can tell my friends about	.145	**.725**	-.172	.097
14. To experience nature in a unique or different way	**.715**	.168	.051	.173
15. To do something adventurous	.055	.536	-.084	.585

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 7 iterations

Table 6.3 Total Variance Explained, Motivational Items for Rafting Participants (n = 242).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.487	23.248	23.248
2	2.692	17.947	41.195
3	1.346	8.975	50.170
4	1.140	7.603	**57.773**
5	.972	6.478	64.251
6	.819	5.462	69.713
7	.718	4.787	74.499
8	.687	4.579	79.078
9	.591	3.942	83.020
10	.587	3.915	86.936
11	.489	3.262	90.197
12	.421	2.804	93.001
13	.385	2.567	95.568
14	.351	2.337	97.905
15	.314	2.095	100.000

Extraction Method: Principal Components Analysis

Tables 6.4 and 6.5 show the PCA results for the 181 sailing participants. Here it can be seen that a total of five components have emerged and that 63.5% of the difference is explained. Once again, these have been assigned generalised labels, depending on the items loaded on each component. The findings show that the components are very different from the rafting participants. For example, component number 1, that has been labelled "novelty", shows that a cluster of motivational items representing the chance of seeing or experiencing something new, doing something that they can tell their friends about, experiencing nature in a unique or different way, and doing something adventurous describe a group of motivations that are very different (except for the want to do something adventurous) to the rafting participants. Additionally, the item of risk loads on component 4 for the sailing participants, whereas this item appears on component 2 for the rafting participants.

Table 6.4 Principal Component Analysis of 15 Motivational Items for Sailing Participants (n = 181).

Item	Component				
	1. Novelty	2. Nature	3. Escape	4. Risk	5. Friends
1. To see the natural beauty of the site I will be visiting	.446	.456	.071	-.422	.335
2. To have an opportunity to be with friends and family	.024	-.072	.106	.148	**.816**
3. To have a chance of seeing or experiencing something new	**.653**	.299	.017	-.191	.081
4. To be close to nature	.272	**.717**	.069	-.038	.183
5. To have exciting experiences	.511	.441	.010	.131	.262
6. To escape towns and cities	.089	.058	**.723**	.303	.144
7. To have an opportunity to rest and relax	.053	.131	**.782**	-.181	.146
8. To experience risk	.032	.107	.228	**.720**	.121
9. To see wildlife in detail	.098	**.762**	.075	.106	-.235
10. To have an educational or learning experience	.246	**.562**	.221	.128	-.203
11. To escape tourism masses and crowds	.095	.127	**.716**	.289	-.138
12. To be physically active	-.016	**.555**	.185	.466	.286
13. To do something that I can tell my friends about	**.809**	-.073	.223	.134	-.127
14. To experience nature in a unique or different way	**.607**	.387	.040	.060	-.005
15. To do something adventurous	**.616**	.162	.016	.593	.058

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 21 iterations

Table 6.5 Total Variance Explained, Motivational Items for Sailing Participants (n = 181).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.338	28.920	28.920
2	1.863	12.417	41.337
3	1.147	7.648	48.985
4	1.109	7.390	56.375
5	1.064	7.095	**63.470**
6	.841	5.608	69.078
7	.736	4.904	73.982
8	.702	4.678	78.659
9	.615	4.099	82.758
10	.572	3.815	86.573
11	.481	3.205	89.778
12	.428	2.850	92.628
13	.419	2.796	95.424
14	.382	2.548	97.972
15	.304	2.028	100.000

Extraction Method: Principal Components Analysis

The PCA analysis for the bungy participants is shown in Tables 6.6 and 6.7. A total of 56.3% of the difference has been explained in this PCA. It is interesting to see here that this group of adventure tourists can be described by just three components. The first, labelled "nature", represents a total of 8 items. This finding suggests that these adventure tourists are highly motivated by the opportunity to see the natural beauty of the site visited, to be close to nature, to see wildlife in detail and have a learning experience. The second factor, labelled "risk" loads highly on the excitement, risk and adventuresome nature of the experience. The final component recognises their motivation to be with friends and family as well as having the chance to see or experience something new. The one item that did not load on any of the three components was number 12 which is to be physically active. It would seem that these participants are not going bungy jumping in order to exert themselves physically.

Table 6.6 Principal Component Analysis of 15 Motivational Items for Bungy Participants (n = 189).

Item	Component		
	1. Nature	2. Risk	3. Novelty
1. To see the natural beauty of the site I will be visiting	**.752**	.005	-.162
2. To have an opportunity to be with friends and family	.397	.093	**-.573**
3. To have a chance of seeing or experiencing something new	.177	.247	**.697**
4. To be close to nature	**.781**	-.026	-.039
5. To have exciting experiences	.087	**.822**	.209
6. To escape towns and cities	**.762**	-.018	.006
7. To have an opportunity to rest and relax	**.647**	-.142	.136
8. To experience risk	.067	**.691**	.392
9. To see wildlife in detail	**.778**	-.075	.049
10. To have an educational or learning experience	**.550**	.110	.344
11. To escape tourism masses and crowds	**.737**	-.056	.116
12. To be physically active	.431	.401	.169
13. To do something that I can tell my friends about	.004	**.725**	-.219
14. To experience nature in a unique or different way	**.682**	.175	-.145
15. To do something adventurous	-.105	**.825**	.008

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 5 iterations

Table 6.7 Total Variance Explained, Motivational Items for Bungy Participants (n = 189).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.497	29.977	29.977
2	2.801	18.673	48.650
3	1.146	7.637	**56.287**
4	.881	5.873	62.161
5	.838	5.585	67.746
6	.746	4.976	72.722
7	.722	4.811	77.533
8	.598	3.990	81.522
9	.543	3.619	85.141
10	.481	3.209	88.349
11	.458	3.053	91.403
12	.419	2.793	94.196
13	.348	2.321	96.517
14	.264	1.758	98.275
15	.259	1.725	100.000

Extraction Method: Principal Components Analysis

In summary, it can be seen from the analysis conducted in section 6.1.1 that when treated as independent items, the motivations between the three groups of adventure tourists are indeed significantly different and that the null hypothesis Hypothesis 4 may be rejected. The important finding in section 6.1.2, which treated the 15 motivational items as being interdependent, is that different levels of complexity exist between the three activities in terms of how their motivations may be grouped. The bungy jumpers are the most basic with only three different components emerging from the PCA, whereas the sailing participants are the most complex with five components. Ultimately, it can be said that Australian domestic adventure tourists and inbound adventure tourists with English as a first language display very different patterns of motivation when choosing to participate in either whitewater rafting, sailing, or bungy jumping. This finding will be extremely useful in developing specific marketing strategies designed to attract these markets.

6.2 Testing Hypothesis 5: Satisfaction

H5: Levels of satisfaction vary between different adventure tourism activities.

Hypothesis 5 is directly related to the individual level of satisfaction that may be inferred upon the clients of the three different adventure tourism activities on the basis of the disconfirmation of expectations model. By conducting this test, it will be seen whether differences in satisfaction levels are apparent between the three adventure tourism activities, and in which way they differ.

Table 6.8 and Figure 6.4 show the average inferred satisfaction scores by activity. It can be seen that the largest inferred satisfaction score is for the whitewater rafting participants when they are asked to use the 1-7 Likert scale to record their pre-event expectation of getting scared during the experience and their post-event perception of how scared they were. Therefore an inferred satisfaction level of –2.10 has resulted from the analysis. This suggests that these participants are not satisfied in relation to having their expectation of being scared realised during the whitewater rafting experience. Figure 6.4 shows that the whitewater rafting participants were also not very satisfied with

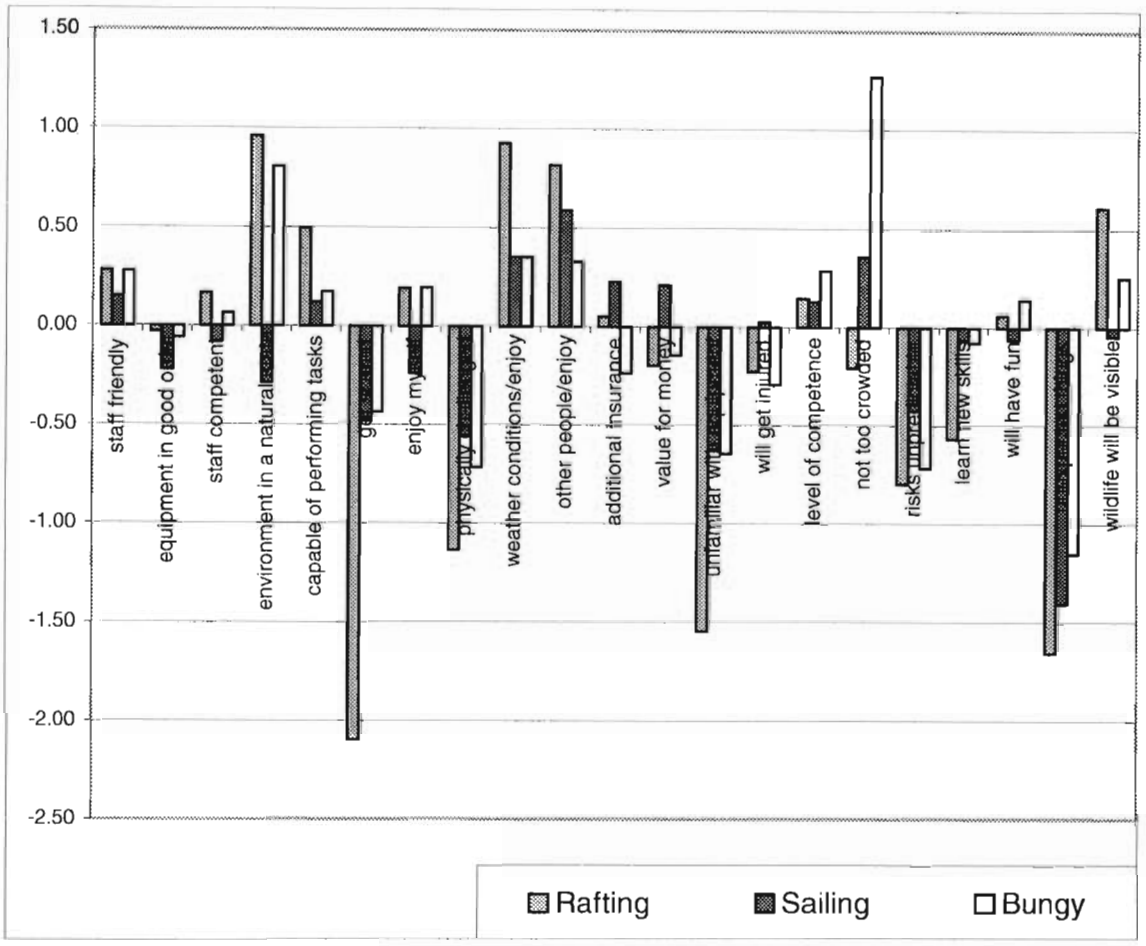
the amount of physical challenge experienced, their level of familiarity with the equipment, the amount of unpredictable risks, the level of crowds, the learning of new skills, and the amount of unexpected things that happened. It is interesting to note that the whitewater rafting participants scored the highest degree of dissatisfaction on these items, when compared to the other two activities.

The highest level of inferred satisfaction scored in this analysis is that of the bungy jumpers being satisfied with the level of crowding at the bungy site. The next four highest levels of inferred satisfaction are attributed to the whitewater rafting participants. This group were the most satisfied with the natural state of the environment, the weather conditions, other people in the group allowing them to have en enjoyable experience, and the visibility of wildlife. From this, it may be said that the whitewater rafting participants were both the most dissatisfied and the most satisfied. In other words, they have the largest range of inferred satisfaction responses of the three activities tested.

Table 6.8 Disconfirmation of Expectations Analysis for Each Group (Raft, Sail, Bungy).

Satisfaction Item	Pairs of items (pre & post event) used to measure satisfaction	Difference of the post – pre mean scores for Rafting	Difference of the post – pre mean scores for Sailing	Difference of the post – pre mean scores for Bungy
Staff Friendly	16. I expect the staff to be friendly 37. The staff were friendly	.28	.15	.28
Equipment	17. I expect that the equipment will be in good order 38. The equipment was in good order	-.03	-.23	-.05
Staff	18. I expect that the staff will be competent 39. The staff were competent	.17	-.07	.06
Environment	19. I expect that the environment will be in a natural state 40. The environment was in a natural state	.96	-.29	.81
Performing Tasks	20. I expect that I will be capable of performing tasks asked of me 41. I was capable of performing tasks asked of me	.50	.12	.17
Scared	21. I expect that I will get scared 42. I got scared	-2.10	-.48	-.43
Enjoyment	22. I expect that I will enjoy myself 43. I enjoyed myself	.19	-.24	.20
Physically challenged	23. I expect that I will be physically challenged 44. I was physically challenged	-1.13	-.56	-.71
Weather	24. I expect that the weather conditions will allow me to enjoy this activity 45. The weather conditions allowed me to enjoy this activity	.93	.35	.35
Others in the group	25. I expect that other people in the group will not stop me from enjoying this activity 46. Other people in the group did not stop me from enjoying this activity	.82	.59	.32
Insurance	26. I expect that will not require additional insurance 47. I don't require any additional insurance	.04	.22	-.23
Value for money	27. I expect that I will get value for money 48. I got value for money	-.19	.21	-.14
Unfamiliar with equipment	28. I expect that I will be unfamiliar with the equipment being used 49. I was unfamiliar with the equipment being used	-1.54	-.62	-.64
Injured	29. I expect that I will get injured 50. I got injured	-.23	.02	-.30
Competence	30. I expect that the staff will understand my level of competence 51. The staff understood my level of competence	.14	.13	.29
Crowded	31. I expect that the place I visit today will not be too crowded 52. The place I visited today was not too crowded	-.21	.35	1.27
Unpredictable risks	32. I expect the risks associated with this activity will be unpredictable 53. The risks associated with this activity were unpredictable	-.80	-.43	-.71
Learn new skills	33. I expect that I will learn new skills 54. I learnt new skills	-.57	-.06	-.07
Fun	34. I expect that I will have fun 55. I had fun	.06	-.06	.14
Unexpected things	35. I expect that a lot of unexpected things will happen 56. A lot of unexpected things happened	-1.65	-1.4	-1.15
Wildlife	36. I expect wildlife to be visible 57. Wildlife was visible	.61	-.03	.26
Legend of means: 1 = Totally disagree, 4 = Agree, 7 = Totally agree				

Figure 6.4 Disconfirmation of Expectations Analysis (post-event item – pre-event item) for Each Group.



While knowledge of the existence of different levels of inferred satisfaction between these three adventure tourism activities is useful in understanding how perceived risk and satisfaction are related to the experience, a more detailed analysis will provide information on exactly how these activities differ. Tables 6.9, 6.10 and 6.11 show the individual pre-event expectations and post-event perceptions for each activity. Similar to the way in which the analysis of the motivational items in section 6.1.1 was conducted, t-tests have once again been used to identify differences with these average scores. However, in this instance the tests have been conducted on each pair of items (the pair of one pre-event expectation coupled with one corresponding post-event perception) for each of the three activities, rather than a comparison of pairs of items based on activity (eg. sail/raft, raft/bungy, sail/bungy) as done in the motivational analysis of section 6.1.1.

It can be seen in Table 6.9 that 13 of the 21 items for whitewater rafting participants are significantly different at a minimum 95% confidence level. This means that this group of adventure tourists have widely different expectations of the experience based on their post-event perception of the same experience. For example, on the bus drive out to the Tully River, this group expected the staff to be friendly (mean score of 6.2), and then on the return bus trip they rated the staff to be more friendly than they expected (mean score of 6.5). The difference on this particular item is significant at a confidence level of 99.9%. Tables 6.10 and 6.11 show that 8 of the 21 inferred satisfaction items were significantly different for the sailing participants, and that 13 of the 21 were significantly different for the bungy jumping participants.

Table 6.9 Disconfirmation of Expectations Analysis (t-tests) of Pre-Event and Post-Event Variables for Whitewater Rafting Participants (n = 242).

Satisfaction Variable	Pairs of variables (pre & post event) used to measure satisfaction	Pre and post means	Difference of the post - pre	Std. Dev	t	Sig.
Staff Friendly	16. I expect the staff to be friendly	6.22	.28	1.27	3.441	.001**
	37. The staff were friendly	6.50				
Equipment	17. I expect that the equipment will be in good order	6.52	-.03	1.15	-.448	.655
	38. The equipment was in good order	6.48				
Staff	18. I expect that the staff will be competent	6.53	.17	.99	2.602	.010*
	39. The staff were competent	6.70				
Environment	19. I expect that the environment will be in a natural state	5.49	.96	1.45	10.330	.000***
	40. The environment was in a natural state	6.45				
Performing Tasks	20. I expect that I will be capable of performing tasks asked of me	5.92	.50	1.39	5.556	.000***
	41. I was capable of performing tasks asked of me	6.41				
Scared	21. I expect that I will get scared	4.69	-2.10	2.08	-15.663	.000***
	42. I got scared	2.60				
Enjoyment	22. I expect that I will enjoy myself	6.41	.19	1.15	2.577	.011
	43. I enjoyed myself	6.60				
Physically challenged	23. I expect that I will be physically challenged	5.54	-1.13	1.93	-9.146	.000***
	44. I was physically challenged	4.40				
Weather	24. I expect that the weather conditions will allow me to enjoy this activity	5.20	.93	1.64	8.795	.000***
	45. The weather conditions allowed me to enjoy this activity	6.13				
Others in the group	25. I expect that other people in the group will not stop me from enjoying this activity	5.67	.82	1.58	8.067	.000***
	46. Other people in the group did not stop me from enjoying this activity	6.49				
Insurance	26. I expect that will not require additional insurance	5.45	.04	2.08	.340	.734
	47. I don't require any additional insurance	5.50				
Value for money	27. I expect that I will get value for money	5.93	-.19	1.65	-1.831	.068
	48. I got value for money	5.73				
Unfamiliar with equipment	28. I expect that I will be unfamiliar with the equipment being used	4.12	-1.54	2.21	-10.854	.000***
	49. I was unfamiliar with the equipment being used	2.57				
Injured	29. I expect that I will get injured	1.95	-.23	1.85	-1.907	.058
	50. I got injured	1.73				
Competence	30. I expect that the staff will understand my level of competence	5.27	.14	1.87	1.171	.243
	51. The staff understood my level of competence	5.41				
Crowded	31. I expect that the place I visit today will not be too crowded	4.72	-.21	2.22	-1.450	.148
	52. The place I visited today was not too crowded	4.52				
Unpredictable risks	32. I expect the risks associated with this activity will be unpredictable	4.40	-.80	1.97	-6.292	.000***
	53. The risks associated with this activity were unpredictable	3.60				
Learn new skills	33. I expect that I will learn new skills	5.26	-.57	2.02	-4.364	.000***
	54. I learnt new skills	4.70				
Fun	34. I expect that I will have fun	6.46	.06	1.22	.791	.430
	55. I had fun	6.52				
Unexpected things	35. I expect that a lot of unexpected things will happen	4.89	-1.65	1.91	-13.480	.000***
	56. A lot of unexpected things happened	3.24				
Wildlife	36. I expect wildlife to be visible	3.93	.61	2.10	4.537	.000***
	57. Wildlife was visible	4.55				

Legend of means: 1 = Totally disagree, 4 = Agree, 7 = Totally agree

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 6.10 Disconfirmation of Expectations Analysis (t-tests) of Pre-Event and Post-Event Variables for Sailing Participants (n = 181).

Satisfaction Variable	Pairs of variables (pre & post event) used to measure satisfaction	Pre and post means	Difference of the post - pre	Std. Dev	t	Sig.
Staff Friendly	16. I expect the staff to be friendly	6.27	.15	1.37	1.462	.145
	37. The staff were friendly	6.42				
Equipment	17. I expect that the equipment will be in good order	6.29	-.23	1.57	-1.937	.054
	38. The equipment was in good order	6.07				
Staff	18. I expect that the staff will be competent	6.45	-.07	1.33	-.784	.434
	39. The staff were competent	6.37				
Environment	19. I expect that the environment will be in a natural state	5.95	-.29	1.75	-2.209	.028*
	40. The environment was in a natural state	5.66				
Performing Tasks	20. I expect that I will be capable of performing tasks asked of me	5.75	.12	1.77	.881	.379
	41. I was capable of performing tasks asked of me	5.87				
Scared	21. I expect that I will get scared	2.33	-.48	1.75	-3.647	.000***
	42. I got scared	1.86				
Enjoyment	22. I expect that I will enjoy myself	6.40	-.24	1.68	-1.952	.052
	43. I enjoyed myself	6.16				
Physically challenged	23. I expect that I will be physically challenged	3.45	-.56	2.10	-3.578	.000***
	44. I was physically challenged	2.90				
Weather	24. I expect that the weather conditions will allow me to enjoy this activity	5.36	.35	1.76	2.708	.007**
	45. The weather conditions allowed me to enjoy this activity	5.71				
Others in the group	25. I expect that other people in the group will not stop me from enjoying this activity	5.54	.59	2.03	3.918	.000***
	46. Other people in the group did not stop me from enjoying this activity	6.13				
Insurance	26. I expect that will not require additional insurance	5.34	.22	2.48	1.167	.245
	47. I don't require any additional insurance	5.55				
Value for money	27. I expect that I will get value for money	5.89	.21	1.58	1.790	.075
	48. I got value for money	6.10				
Unfamiliar with equipment	28. I expect that I will be unfamiliar with the equipment being used	3.09	-.62	2.43	-3.426	.001**
	49. I was unfamiliar with the equipment being used	2.47				
Injured	29. I expect that I will get injured	1.36	.02	1.70	.175	.862
	50. I got injured	1.39				
Competence	30. I expect that the staff will understand my level of competence	5.19	.13	2.20	.777	.438
	51. The staff understood my level of competence	5.32				
Crowded	31. I expect that the place I visit today will not be too crowded	5.04	.35	2.14	2.219	.028*
	52. The place I visited today was not too crowded	5.40				
Unpredictable risks	32. I expect the risks associated with this activity will be unpredictable	2.98	-.43	1.89	-3.025	.003**
	53. The risks associated with this activity were unpredictable	2.56				
Learn new skills	33. I expect that I will learn new skills	3.99	-.06	2.09	-.427	.670
	54. I learnt new skills	3.93				
Fun	34. I expect that I will have fun	6.32	-.06	1.35	-.662	.509
	55. I had fun	6.25				
Unexpected things	35. I expect that a lot of unexpected things will happen	3.55	-1.4	2.06	-9.179	.000***
	56. A lot of unexpected things happened	2.14				
Wildlife	36. I expect wildlife to be visible	5.98	-.03	1.87	-.278	.781
	57. Wildlife was visible	5.94				

Legend of means: 1 = Totally disagree, 4 = Agree, 7 = Totally agree

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 6.11 Disconfirmation of Expectations Analysis (t-tests) of Pre-Event and Post-Event Variables for Bungy Jumping Participants (n = 189).

Satisfaction Variable	Pairs of variables (pre & post event) used to measure satisfaction	Pre and post means	Difference of the post - pre	Std. Dev	T	Sig.
Staff Friendly	16. I expect the staff to be friendly	6.31	.28	1.18	3.218	.002**
	37. The staff were friendly	6.58				
Equipment	17. I expect that the equipment will be in good order	6.68	-.05	.96	-.831	.407
	38. The equipment was in good order	6.62				
Staff	18. I expect that the staff will be competent	6.61	.06	1.14	.830	.408
	39. The staff were competent	6.68				
Environment	19. I expect that the environment will be in a natural state	4.85	.81	2.11	5.287	.000***
	40. The environment was in a natural state	5.66				
Performing Tasks	20. I expect that I will be capable of performing tasks asked of me	6.12	.17	1.58	1.471	.143
	41. I was capable of performing tasks asked of me	6.29				
Scared	21. I expect that I will get scared	5.97	-.43	2.03	-2.939	.004**
	42. I got scared	5.53				
Enjoyment	22. I expect that I will enjoy myself	6.49	.20	1.15	2.335	.021*
	43. I enjoyed myself	6.69				
Physically challenged	23. I expect that I will be physically challenged	5.22	-.71	1.95	-5.037	.000***
	44. I was physically challenged	4.51				
Weather	24. I expect that the weather conditions will allow me to enjoy this activity	5.54	.35	1.87	2.603	.010*
	45. The weather conditions allowed me to enjoy this activity	5.89				
Others in the group	25. I expect that other people in the group will not stop me from enjoying this activity	6.06	.32	1.70	2.605	.010*
	46. Other people in the group did not stop me from enjoying this activity	6.39				
Insurance	26. I expect that will not require additional insurance	5.69	-.23	2.39	-1.339	.182
	47. I don't require any additional insurance	5.46				
Value for money	27. I expect that I will get value for money	6.08	-.14	1.71	-1.149	.252
	48. I got value for money	5.94				
Unfamiliar with equipment	28. I expect that I will be unfamiliar with the equipment being used	5.26	-.64	1.95	-4.505	.000***
	49. I was unfamiliar with the equipment being used	4.62				
Injured	29. I expect that I will get injured	1.52	-.30	1.30	-3.125	.002**
	50. I got injured	1.23				
Competence	30. I expect that the staff will understand my level of competence	5.51	.29	1.63	2.456	.015*
	51. The staff understood my level of competence	5.80				
Crowded	31. I expect that the place I visit today will not be too crowded	4.61	1.27	2.29	7.610	.000***
	52. The place I visited today was not too crowded	5.88				
Unpredictable risks	32. I expect the risks associated with this activity will be unpredictable	4.12	-.71	2.25	-4.362	.000***
	53. The risks associated with this activity were unpredictable	3.41				
Learn new skills	33. I expect that I will learn new skills	4.03	-.07	2.22	-.459	.647
	54. I learnt new skills	3.95				
Fun	34. I expect that I will have fun	6.49	.14	1.17	1.613	.108
	55. I had fun	6.62				
Unexpected things	35. I expect that a lot of unexpected things will happen	3.94	-1.15	2.59	-6.102	.000***
	56. A lot of unexpected things happened	2.79				
Wildlife	36. I expect wildlife to be visible	3.16	.26	2.38	1.525	.129
	57. Wildlife was visible	3.43				

Legend of means: 1 = Totally disagree, 4 = Agree, 7 = Totally agree

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

To understand both the direction (satisfied - dissatisfied) and meaning (level of significance) of the differences relating to each of the 21 inferred satisfaction items, Table 6.12 has been created. What becomes apparent here is that participants of all three activities are satisfied with the friendliness of the staff, especially so the rafting and bungy jumping participants, who have differences at the 99.9% confidence level between

their pre and post inferred satisfaction scores. While the sailing respondents were also satisfied with the friendliness of the staff, the differences in their pre and post scores were not significantly different.

Table 6.12 Summary of Inferred Satisfaction Findings by Activity.

Satisfaction Item	Inferred satisfaction occurs when pre-event expectations have been surpassed by post-event perceptions.					
	Rafting (n = 242)		Sailing (n = 181)		Bungy (n = 189)	
	Respondents were satisfied	Respondents were NOT satisfied	Respondents were satisfied	Respondents were NOT satisfied	Respondents were satisfied	Respondents were NOT satisfied
1. Staff Friendly	Satisfied**		Satisfied		Satisfied**	
2. Equipment in good order		NOT satisfied		NOT satisfied		NOT satisfied
3. Staff competence	Satisfied *			NOT satisfied	Satisfied	
4. Environment in natural state	Satisfied ***			NOT satisfied*	Satisfied***	
5. Client capable of performing Tasks	Satisfied ***		Satisfied		Satisfied	
6. Client scared		NOT satisfied ***		NOT satisfied***		NOT satisfied**
7. Client enjoyment	Satisfied			NOT satisfied	Satisfied*	
8. Client physically challenged		NOT satisfied ***		NOT satisfied***		NOT satisfied***
9. Weather allowed enjoyment	Satisfied ***		Satisfied**		Satisfied*	
10. Others in the group did not stop enjoyment	Satisfied ***		Satisfied***		Satisfied*	
11. Additional insurance required		NOT satisfied	Satisfied		Satisfied	
12. Value for money		NOT satisfied	Satisfied			NOT satisfied
13. Client unfamiliar with equipment		NOT satisfied ***		NOT satisfied***		NOT satisfied***
14. Injured		NOT satisfied	Satisfied			NOT satisfied**
15. Staff understood client level of competence	Satisfied		Satisfied		Satisfied*	
16. Crowded	Satisfied		Satisfied*			NOT satisfied***
17. Risks associated with activity are unpredictable		NOT satisfied ***		NOT satisfied**		NOT satisfied***
18. Learn new skills		NOT satisfied ***		NOT satisfied		NOT satisfied
19. Fun	Satisfied			NOT satisfied	Satisfied	
20. Unexpected things happened		NOT satisfied ***		NOT satisfied***		NOT satisfied***
21. Wildlife visible	Satisfied ***			NOT satisfied	Satisfied	

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

The second inferred satisfaction variable to be considered relates to whether the equipment is in good order or not. Participants of all three activities were not satisfied

with the order of the equipment being used. This is perhaps one of the more controllable variables that a tour operator can have in affecting the satisfaction customers have of the adventure tourism experience. Items such as paddles, life vests, masks and snorkels, or towels used to wrap around a participants ankles prior to the bungy webbing being attached are pieces of equipment that receive a lot of use and resultant wear and tear. Scheduled and costed maintenance and replacement of equipment such as these would appear to directly impact upon the level of satisfaction of the participant.

While the staff were reported to be competent by the rafting and bungy participants, as shown in the third inferred satisfaction item, they were not reported as being competent by the sailing participants. Although not at a significance level of at least 95%, these participants generally expected the staff running the sailing operation to be more competent.

The sailing experience also shows a marked difference in comparison to the other two adventure tourism activities, when considering the variable relating to the environment being in a natural state. The expectations of the rafting and bungy participants are both significantly different and surpassed on this item, whereas this is not the case with the sailing participants. These participants were not satisfied by the natural state of the environment.

All respondents had their expectations surpassed (in other words, satisfaction can be inferred) with the variables relating to the clients being capable of performing tasks (item 5), the weather allowing them to enjoy the activity (item 9), the expectation that others in the group will not stop them from enjoying the activity (item 10), and the staff understanding their level of competence (item 15). The items in which unanimous inferred dissatisfaction occurs is with the clients being physically challenged (item 8), the clients being unfamiliar with the equipment (item 13), the risks involved with the activity being unpredictable (item 17), learning new skills (item 18), and unexpected things happening (item 20).

As more items presented in this analysis are significantly different than are not, the null hypothesis for hypothesis five may be rejected.

Although satisfaction has been analysed as a set of independent variables, it is also prudent to consider the multivariate relationships between the variables. This once again follows a similar logic to that employed to conduct the analysis of the 15 motivational items in section 6.1.2. In order to do this analysis, a Principal Components Analysis (PCA) is conducted in sections 6.2.1 (rafting participants), 6.2.2 (sailing participants) and 6.2.3 (bungy participants) on the 21 pre-event and 21 post-event variables for each activity.

6.2.1 Principal Components Analysis of Pre and Post-Event Variables for Rafting Participants (n = 242)

It can be seen in Table 6.13 that five components have emerged from the PCA of pre-event expectations and Table 6.14 shows that 58.1% of the difference has been explained for the 21 expectation items for these 242 whitewater rafting participants. In the post-event analysis it can be seen in Table 6.15 that six components are identified, while Table 6.16 shows that 60.8% of the difference is explained.

The fact that one more component has been identified in the post-event PCA shows that some differences are present. However, a degree of similarity can been seen when the first three items, which relate to the friendliness of the staff, the good order of the equipment, and the competency of the staff, all load on the first component for both the pre and post-event PCA. This would suggest that these items are very important in determining satisfaction for these whitewater rafting participants. The only other two items that load on the same component relate to the participant being physically challenged, and getting value for money, as both these load on the second component.

Table 6.13 Principal Component Analysis of the 21 **Pre-Event** Expectation Items for Rafting Participants (n = 242).

Item	Component				
	1	2	3	4	5
16. the staff will be friendly	**.719**	.335	.078	.196	-.013
17. the equipment will be in good order	**.862**	.135	-.065	.131	.182
18. Staff will be competent	**.876**	.131	-.063	.073	.170
19. the environment will be in a natural state	.395	.233	.272	.410	-.173
20. I will be capable of performing tasks asked of me	.303	**.618**	.010	.122	-.137
21. I will get scared	.202	.297	.314	-.241	**.533**
22. I will enjoy myself	.529	**.567**	.082	-.020	.035
23. I will be physically challenged	.247	**.571**	.241	.047	.321
24. The weather conditions will allow me to enjoy this activity	.003	**.716**	.062	.193	-.050
25. other people in the group will not stop me from enjoying this activity	.145	**.539**	.014	.397	.336
26. I will not require any additional insurance than I currently have	.237	**.566**	-.194	.144	.063
27. I will get value for money	.324	**.566**	-.091	.233	.284
28. I will be unfamiliar with equipment being used	.018	-.089	.094	.094	**.805**
29. I will get injured	-.104	-.181	**.623**	.058	-.066
30. The staff will understand my level of competence in this particular activity	.209	.137	-.133	**.513**	.418
31. The place I visit today will not be too crowded	.103	.246	-.037	**.680**	.088
32. The risks associated with this activity will be unpredictable	-.005	.055	**.732**	.122	.193
33. I will learn new skills	.154	.156	.198	.448	**.531**
34. I will have fun	**.547**	.405	.216	.092	.077
35. A lot of unexpected things will happen	.194	.157	**.722**	.079	.191
36. Wildlife will be visible	.059	.101	.368	**.627**	-.033

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 9 iterations

Table 6.14 Total Variance Explained of the 21 **Pre-Event** Expectation Items for Rafting Participants (n = 242).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	6.339	30.184	30.184
2	2.095	9.977	40.161
3	1.387	6.603	46.764
4	1.336	6.364	53.128
5	1.047	4.986	**58.114**
6	.937	4.463	62.578
7	.914	4.353	66.931
8	.751	3.575	70.506
9	.716	3.412	73.918
10	.663	3.157	77.075
11	.630	3.002	80.077
12	.599	2.852	82.929
13	.579	2.755	85.684
14	.516	2.459	88.143
15	.497	2.367	90.510
16	.434	2.069	92.579
17	.401	1.911	94.490
18	.372	1.771	96.261
19	.319	1.521	97.782
20	.275	1.309	99.090
21	.191	.910	100.000

Extraction Method: Principal Components Analysis

Table 6.15 Principal Component Analysis of the 21 **Post-Event** Perception Items for Rafting Participants (n = 242).

Item	Component					
	1	2	3	4	5	6
37. The staff were friendly	**.767**	.090	.122	.090	.069	-.089
38. The equipment was in good order	**.747**	.145	.177	.055	.063	-.050
39. The staff were competent	**.859**	.205	.023	.095	.039	-.106
40. The environment was in a natural state	**.725**	.000	.135	.113	.060	.002
41. I was capable of performing the tasks asked of me	**.650**	-.163	.229	.256	-.158	.004
42. I got scared	-.181	.478	.130	.097	.205	.300
43. I enjoyed myself	.542	.546	-.026	.302	-.041	-.014
44. I was physically challenged	-.006	**.647**	.215	.067	.193	.017
45. The weather conditions did not stop me from enjoying this activity	.304	.011	.034	**.745**	.190	.068
46. Other people in the group did not stop me from enjoying this activity	.242	.202	.163	**.686**	.008	.007
57. Wildlife was visible	.222	.274	.450	-.175	-.061	.090
48. I got value for money	.270	**.507**	.429	.284	.102	-.086
49. I was unfamiliar with the equipment being used	.133	.350	.104	-.333	.108	**.516**
50. I got injured	-.234	.040	-.051	.173	.017	**.821**
51. The staff understand my level of competence in this particular activity	.302	.120	**.584**	.110	.071	.259
52. The place I visited today was not too crowded	.085	.073	**.754**	.114	.250	-.265
53. The risks associated with this activity were unpredictable	.027	.088	.076	.092	**.843**	.042
56. A lot of unexpected things happened to me today	.070	.301	.045	.047	**.753**	.064
55. I had fun	.331	**.654**	.022	.218	-.086	-.290
54. I learnt new skills	.157	**.677**	.116	-.127	.192	.188
47. I don't require any additional insurance than I currently have	.021	.188	.447	.314	-.328	.071

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 11 iterations

Table 6.16 Total Variance Explained, of the 21 **Post-Event** Perception Items for Rafting Participants (n = 242).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	5.504	26.208	26.208
2	2.471	11.768	37.976
3	1.323	6.299	44.275
4	1.273	6.060	50.335
5	1.143	5.443	55.778
6	1.056	5.029	**60.808**
7	.950	4.522	65.330
8	.883	4.202	69.532
9	.815	3.883	73.415
10	.717	3.415	76.830
11	.660	3.145	79.975
12	.613	2.920	82.895
13	.606	2.887	85.782
14	.505	2.407	88.189
15	.471	2.244	90.433
16	.448	2.132	92.565
17	.415	1.976	94.541
18	.345	1.645	96.186
19	.311	1.482	97.668
20	.277	1.321	98.989
21	.212	1.011	100.000

Extraction Method: Principal Components Analysis

6.2.2 Principal Components Analysis of Pre and Post-Event Variables for Sailing Participants (n = 181)

It can be seen in Tables 6.18 and 6.20 that the pre-event PCA explained 59.8% of the differences and the PCA of the post-event items explained 55.5% of the differences. While it can be seen that this PCA also identified five components for both analyses (shown in Tables 6.17 and 6.19), the items loading on the components are very different. Those items that are very important to the pre-event expectation for the 181 sailing participants relate to the staff being friendly (item 16), the equipment being in good order (item 17), the staff being competent (item 18), the environment being in a natural state (item 19) and the participant being capable of performing tasks asked of them (item 20). This selection of items becomes very different in the post-event perception PCA when the "I enjoyed myself" item (number 43), the "I had fun" item (number 55) and "I learnt

new skills" item (number 54) become much more important. This suggests a change in attitude from one that was more concerned about the logistics (equipment and staff competency), pleasant surroundings (friendly staff and the environment being in a natural state), and their own capabilities of performing tasks, to one of just enjoying themselves, having fun and learning some new skills.

Table 6.17 Principal Component Analysis of the 21 **Pre-Event** Expectation Items for Sailing Participants (n = 181).

Item	Component				
	1	2	3	4	5
16. the staff will be friendly	**.765**	-.042	.197	.225	.322
17. the equipment will be in good order	**.797**	.002	.177	.140	.244
18. Staff will be competent	**.827**	.000	.250	.158	.267
19. the environment will be in a natural state	**.710**	-.072	.234	.009	-.107
20. I will be capable of performing tasks asked of me	**.565**	.049	.114	.342	-.192
21. I will get scared	-.080	**.675**	-.041	-.390	.109
22. I will enjoy myself	.354	-.150	.147	**.650**	.115
23. I will be physically challenged	-.075	**.686**	-.276	.156	.079
24. The weather conditions will allow me to enjoy this activity	.149	.100	**.641**	.307	.186
25. other people in the group will not stop me from enjoying this activity	.124	.151	**.572**	.349	.312
26. I will not require any additional insurance than I currently have	.146	-.015	.293	.090	**.737**
27. I will get value for money	.258	.050	**.582**	.319	.337
28. I will be unfamiliar with equipment being used	-.089	**.632**	.076	-.282	-.030
29. I will get injured	-.429	.248	-.065	-.269	-.389
30. The staff will understand my level of competence in this particular activity	.339	-.104	**.564**	.052	-.179
31. The place I visit today will not be too crowded	.178	.066	**.774**	-.105	-.023
32. The risks associated with this activity will be unpredictable	-.114	**.576**	.175	-.023	-.512
33. I will learn new skills	.177	**.719**	.096	-.044	-.104
34. I will have fun	.213	.024	.265	**.713**	.096
35. A lot of unexpected things will happen	-.133	**.712**	-.096	.284	-.095
36. Wildlife will be visible	.146	.008	.462	.366	.190

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 13 iterations

Table 6.18 Total Variance Explained of the 21 **Pre-Event** Expectation Items for Sailing Participants (n = 181).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	6.083	28.967	28.967
2	2.983	14.207	43.174
3	1.350	6.428	49.602
4	1.085	5.168	54.770
5	1.060	5.046	**59.816**
6	.908	4.322	64.138
7	.839	3.995	68.133
8	.800	3.811	71.944
9	.793	3.778	75.722
10	.670	3.190	78.911
11	.595	2.834	81.745
12	.563	2.682	84.427
13	.556	2.649	87.076
14	.483	2.298	89.374
15	.462	2.201	91.575
16	.395	1.882	93.457
17	.370	1.761	95.218
18	.352	1.678	96.896
19	.314	1.495	98.391
20	.217	1.032	99.423
21	.121	.577	100.000

Extraction Method: Principal Components Analysis

Table 6.19 Principal Component Analysis of the 21 **Post-Event** Perception Items for Sailing Participants (n = 181).

Item	Component				
	1	2	3	4	5
37. The staff were friendly	.141	.193	**.798**	-.042	.074
38. The equipment was in good order	.251	.138	**.696**	.021	-.066
39. The staff were competent	.173	.274	**.810**	-.131	-.007
40. The environment was in a natural state	.197	**.505**	.338	.126	.105
41. I was capable of performing the tasks asked of me	.065	.240	.179	**-.575**	-.049
42. I got scared	.140	.163	-.227	**.644**	.154
43. I enjoyed myself	**.628**	.188	.210	-.193	-.086
44. I was physically challenged	-.098	.083	.163	**.776**	.070
45. The weather conditions did not stop me from enjoying this activity	-.012	**.627**	.229	-.004	-.184
46. Other people in the group did not stop me from enjoying this activity	.056	**.699**	.209	-.095	.143
57. Wildlife was visible	.355	**.703**	.061	-.041	.030
48. I got value for money	.561	**.525**	.151	.001	.111
49. I was unfamiliar with the equipment being used	.497	-.102	-.082	.413	.104
50. I got injured	-.102	.057	-.117	.134	**.698**
51. The staff understand my level of competence in this particular activity	.486	.220	.397	-.104	.042
52. The place I visited today was not too crowded	.338	.335	.272	-.089	.281
53. The risks associated with this activity were unpredictable	.124	-.035	-.011	.180	**.749**
56. A lot of unexpected things happened to me today	.085	.039	.137	-.022	**.789**
55. I had fun	**.718**	.306	.227	-.046	-.015
54. I learnt new skills	**.627**	-.010	.249	.310	.151
47. I don't require any additional insurance than I currently have	.292	.380	-.124	-.446	-.033

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 8 iterations

Table 6.20 Total Variance Explained of the 21 **Post-Event** Perception Items for Sailing Participants (n = 181).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	5.358	25.515	25.515
2	2.511	11.957	37.472
3	1.433	6.825	44.297
4	1.304	6.208	50.506
5	1.061	5.055	**55.560**
6	.978	4.656	60.217
7	.956	4.550	64.767
8	.916	4.361	69.128
9	.832	3.963	73.091
10	.824	3.924	77.015
11	.711	3.384	80.399
12	.612	2.915	83.314
13	.573	2.730	86.044
14	.543	2.585	88.628
15	.493	2.349	90.977
16	.419	1.996	92.973
17	.388	1.847	94.820
18	.344	1.637	96.457
19	.306	1.455	97.913
20	.294	1.399	99.312
21	.144	.688	100.000

Extraction Method: Principal Components Analysis

6.2.3 Principal Components Analysis of Pre and Post-Event Variables for Bungy Participants (n = 189)

The PCA for pre and post-event items for the 189 bungy jumping participants appears to be the best fit between pre and post expectations, of the three activities tested. Tables 6.21 and 6.23 show the six components in each analysis and Tables 6.22 and 6.24 show that 60.1% and 59.1% of the differences have been explained respectively.

The interesting finding in this analysis is the large degree of similarity with the items loading on the six components. For example, items relating to the friendliness of the staff (items 16 and 37), the participant enjoying themselves (items 22 and 43, and the participant having fun (items 34 and 55) all loaded on the first component in both the pre-event and post-event PCA. This indicates that these factors remain important to participant satisfaction from the beginning to the end of the experience. Likewise, the weather conditions (items 24 and 45) and getting value for money (items 27 and 48) both load on the second component. Unexpected things happening (items 35 and 56) both loaded on component number three. Also, staff understanding the participants level of competence and the place not being too crowded both loaded on component four.

Table 6.21 Principal Component Analysis of the 21 **Pre-Event** Expectation Items for Bungy Participants (n = 189).

Item	Component					
	1	2	3	4	5	6
16. the staff will be friendly	**.558**	.131	-.060	.466	.173	.039
17. the equipment will be in good order	.456	.079	-.393	**.479**	.120	.443
18. Staff will be competent	.432	.010	-.390	**.492**	.133	.374
19. the environment will be in a natural state	.102	.050	-.057	.106	**.776**	.283
20. I will be capable of performing tasks asked of me	.398	.127	-.297	.190	**.416**	.148
21. I will get scared	.011	.165	-.049	.162	-.055	**.824**
22. I will enjoy myself	**.756**	.226	-.155	-.065	.011	.166
23. I will be physically challenged	.251	.076	.195	-.021	.225	**.644**
24. The weather conditions will allow me to enjoy this activity	.065	**.802**	.112	-.055	.013	.185
25. other people in the group will not stop me from enjoying this activity	.337	**.595**	-.142	.066	.125	-.017
26. I will not require any additional insurance than I currently have	.067	**.761**	-.257	.114	.047	.090
27. I will get value for money	.349	**.612**	.218	.075	.025	.041
28. I will be unfamiliar with equipment being used	-.241	-.086	.048	**.613**	-.097	.162
29. I will get injured	-.207	-.075	**.576**	-.032	.011	-.152
30. The staff will understand my level of competence in this particular activity	.139	.101	.111	**.745**	.041	0-.031
31. The place I visit today will not be too crowded	-.219	.376	.133	**.448**	.233	-.109
32. The risks associated with this activity will be unpredictable	.083	.021	**.713**	.181	-.020	.209
33. I will learn new skills	.148	.063	**.555**	.071	.433	.056
34. I will have fun	**.809**	.177	.113	.045	.053	.022
35. A lot of unexpected things will happen	-.143	-.053	**.476**	.004	.410	.299
36. Wildlife will be visible	.055	.090	.210	-.103	**.731**	-.202

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 10 iterations

Table 6.22 Total Variance Explained of the 21 **Pre-Event** Expectation Items for Bungy Participants (n = 189).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	4.826	22.982	22.982
2	2.395	11.406	34.389
3	1.684	8.017	42.405
4	1.411	6.719	49.124
5	1.205	5.737	54.861
6	1.096	5.219	**60.080**
7	.944	4.493	64.573
8	.866	4.123	68.696
9	.809	3.851	72.547
10	.779	3.707	76.254
11	.764	3.639	79.894
12	.667	3.177	83.071
13	.565	2.692	85.763
14	.516	2.459	88.222
15	.503	2.398	90.620
16	.410	1.955	92.575
17	.403	1.920	94.495
18	.379	1.805	96.300
19	.372	1.771	98.071
20	.293	1.394	99.465
21	.112	.535	100.000

Extraction Method: Principal Components Analysis

Table 6.23 Principal Component Analysis of the 21 **Post-Event** Perception Items for Bungy Participants (n = 189).

Item	Component					
	1	2	3	4	5	6
37. The staff were friendly	**.824**	.121	-.010	.097	.155	.028
38. The equipment was in good order	**.797**	.152	.146	.221	.022	.103
39. The staff were competent	**.805**	.201	.052	.112	.044	-.023
40. The environment was in a natural state	.310	-.088	-.149	**.566**	-.029	.397
41. I was capable of performing the tasks asked of me	.242	**.606**	-.258	-.086	.055	-.040
42. I got scared	.208	.009	**.734**	-.096	-.009	-.053
43. I enjoyed myself	**.611**	.497	-.043	-.132	.090	-.081
44. I was physically challenged	.126	.001	.108	-.028	**.792**	.049
45. The weather conditions did not stop me from enjoying this activity	.164	**.585**	.170	.170	-.031	.240
46. Other people in the group did not stop me from enjoying this activity	.349	.376	.382	.128	-.128	.351
57. Wildlife was visible	-.021	.028	-.087	.012	.026	**.729**
48. I got value for money	.175	**.678**	.078	.103	.111	.030
49. I was unfamiliar with the equipment being used	-.052	.028	**.681**	.252	.050	-.152
50. I got injured	**-.514**	.161	.055	-.279	.074	.390
51. The staff understand my level of competence in this particular activity	.145	.348	.065	**.633**	.229	-.094
52. The place I visited today was not too crowded	.156	.046	.193	**.670**	-.059	.016
53. The risks associated with this activity were unpredictable	-.201	-.038	.372	.297	.362	.128
56. A lot of unexpected things happened to me today	-.262	-.051	**.527**	.016	.192	.442
55. I had fun	**.717**	.454	-.188	.052	.042	-.064
54. I learnt new skills	.095	.196	-.045	.079	**.785**	-.019
47. I don't require any additional insurance than I currently have	-.022	.477	.016	.423	.168	-.228

Extraction method: Principal Components Analysis
Rotation Method: Varimax with Kaiser Normalisation
a. Rotation converged in 14 iterations

Table 6.24 Total Variance Explained of the 21 **Post-Event** Perception Items for Bungy Participants (n = 189).

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	5.013	23.871	23.871
2	2.275	10.832	34.703
3	1.505	7.169	41.871
4	1.311	6.241	48.112
5	1.187	5.654	53.766
6	1.122	5.342	**59.109**
7	.981	4.673	63.782
8	.933	4.444	68.226
9	.881	4.195	72.420
10	.799	3.803	76.224
11	.695	3.312	79.536
12	.664	3.164	82.700
13	.631	3.004	85.704
14	.559	2.664	88.368
15	.463	2.206	90.573
16	.448	2.131	92.704
17	.423	2.016	94.720
18	.362	1.725	96.445
19	.275	1.312	97.757
20	.245	1.167	98.924
21	.226	1.076	100.000

Extraction Method: Principal Components Analysis

6.2.4 Summary of Chapter 6

Understanding the motivations and satisfaction levels of Australian domestic adventure tourists and inbound adventure tourists with English as a first language has been an important part of this study as it addresses two of the aims (Aim 2: To understand the motivations of adventure tourists to engage in an adventure tourism activity, and Aim 3: To understand the levels of satisfaction that adventure tourists have in various adventure tourism activities) and will provide valuable information in developing specific marketing strategies as described in the fifth aim of this study (Aim 5: To develop specific marketing strategies for Australian domestic adventure tourists and inbound tourists who have English as a first language).

It has been found that motivations do in fact differ between adventure tourists going either whitewater rafting, sailing or bungy jumping. The whitewater rafting participants tend to want a more physically active experience, while the sailing participants are more motivated by an experience that highlights the chance of seeing the natural beauty of the place being visited, having an opportunity to rest and relax and seeing wildlife in detail. The bungy jumpers on the other hand are more motivated by seeing or experiencing something new, having exciting experiences, experiencing risk, doing something they can tell their friends about, and doing something adventurous.

When considered as interdependent items, it was found that the sailing participants presented the more sophisticated model in that five individual motivation components explained their reasons for undertaking the activity when a PCA was conducted. The whitewater rafting participants presented four individual motivation components, while the bungy jumpers presented three. This may suggest a more straight forward approach to attracting bungy jumpers and a more detailed approach to attracting sailing participants. This may also be explained by the duration of the events. Bungy jumping participants are on the site for a period ranging from 30 minutes to an hour, whereas the sailing participants, as with the whitewater rafting participants, require a full day in which to experience the adventure tourism activity. Additionally, sailing and whitewater rafting include components of the experience such as food (lunch is served on both activities) and transport (sailing to Green Island and travelling by coach to the Tully River) which are not present during bungy jumping.

Levels of satisfaction vary between the different adventure tourism activities used in this study. This was tested by Hypothesis five and it was found that whitewater rafting participants have the largest range of both satisfaction and dissatisfaction. What was interesting in the PCA of satisfaction was the large difference between the pre and post-event items with the sailing participants. It appears that the way in which they place importance on various attributes of the experience changes as the day progresses. This finding is much less so with whitewater rafting participants, and markedly different to the bungy jumping participants. The implications of these finding will become apparent in Chapter 8 (discussion) of this study.

7 Chapter 7: Analysis of Post-Event Intentions

The fourth aim of this study is to determine the relationship between perceived risk as a motivation for participating in an adventure tourism experience and post-event tourist behaviour. Hypotheses 6, 7 and 8 will now be tested in order to provide insights that will address this specific aim.

Aim 4: To understand the behavioural intentions of adventure tourists to engage in future adventure tourism activities.

It can be seen in Tables 7.1, 7.2 and 7.3 that three distinct categories of post-event intentions are measured, those being post-event intentions that consider future adventure activities intended to be done by the respondents, post-event intentions regarding injury insurance and post-event intentions regarding recommendations. Each of these categories will now be explored by testing hypotheses 6, 7 and 8.

Table 7.1 Post-Event Category #1: Future Adventure Activities.

Item Number	Item Description
55	In the future I will seek a less risky adventure activity
56	In the future I will not do this activity again
57	In the future I will seek a more risky adventure activity
58	In the future I will do this activity by myself (no guide)

Table 7.2 Post-Event Category #2: Injury Insurance.

Item Number	Item Description
59	I would prefer to pay for injury insurance before doing this again

Table 7.3 Post-Event Category #3: Recommendations.	
Item Number	Item Description
60	I would only recommend this tour to people who are fit enough
61	I would only recommend this tour to people who are courageous enough
62	I would only recommend this tour to people who are adventurous enough
63	I would only recommend this tour to people who are not too old
64	I would only recommend this tour to people who can afford it
65	I would recommend this tour to anybody

7.1 Testing Hypothesis 6: Future Adventure Activities

H6: The adventure tourists' intention to repeat the adventure tourism activity will vary between different adventure tourism activities.

Figure 7.1 shows that generally speaking, the participants of all three activities (whitewater rafting, sailing and bungy jumping) disagree with the statements concerning the respondents seeking a less risky adventure tourism activity in the future (item 55), intending not to do the activity in the future (item 56) and intending to do the activity by themselves without the services of a commercial guide (item 58). However, the rafting and bungy jumping participants do agree with the statement "In the future I will seek a more risky adventure activity" (item 57), while the sailing participants do not. Therefore, from this initial research, it seems that while all three groups are not seeking an adventure tourism experience in the future that has less risk, only the rafting and bungy participants are seeking one that has more risk associated with it. It also appears that all three groups are willing to repeat the activity again, but not without the services of a professional guide.

Once again, as has been done for testing for significant differences between the three groups of adventure tourists in regards to their motivations and levels of satisfaction, t-tests have been carried out with three pairs of samples. The paired samples are sailing and rafting, rafting and bungy, and sailing and bungy. This analysis is shown in Tables 7.4, 7.5 and 7.6.

Table 7.4 shows that when the mean scores for the sailing and rafting participants are compared using t-tests, the responses are significantly different for each of the items except for "In the future I will not do this activity again". Both mean scores (1.63 and 1.48 on the 1 – 7 Likert scale) are very close to the "totally disagree" end of the scale. The other three items are significantly different at 99.9% confidence.

The rafting and bungy responses are also significantly different for all but one item. They are similar for "In the future I will seek a more risky adventure activity" and the similarity is that both groups agree with the statement.

When comparing the differences in mean responses between post-event future adventure activity intentions between the sailing and bungy groups, it can be seen once again that all except one item is significantly different. The one item in which there is no difference is "In the future I will seek a less risky adventure activity".

Figure 7.1 Comparison of Mean Responses to Post-Event Intentions Regarding Adventure Activities to be done in the Future.

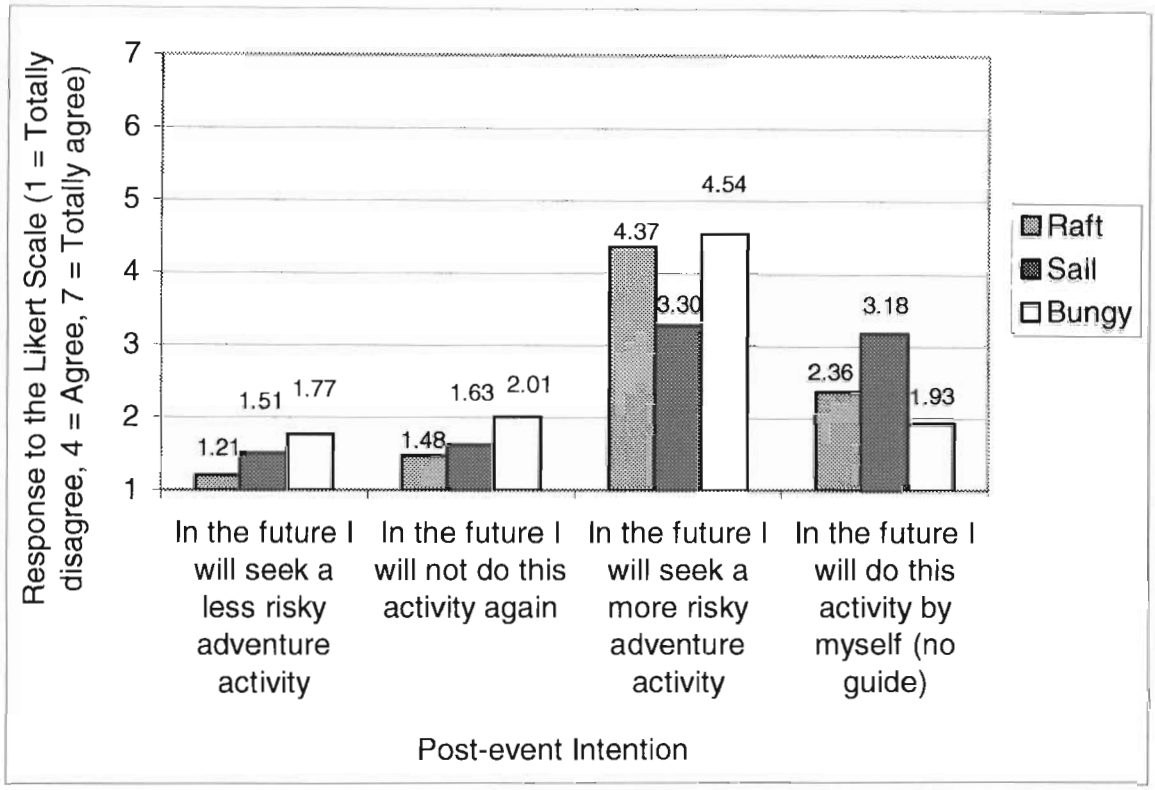


Table 7.4 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Sailing (n = 181) and Rafting (n = 242) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	95% confidence interval of the diff. Upper
In the future I will seek a less risky adventure activity	Equal variance assumed	28.561	.000	2.9	421	.003**	.30	.10	.10	.5
	Equal variance not assumed			2.7	236.1	.006**	.30	.11	8.59	.52
In the future I will not do this activity again	Equal variance assumed	1.131	.043	1.0	421	.306	.15	.14	-.13	.43
	Equal variance not assumed			.9	342.2	.320	.15	.15	-.14	.44
In the future I will seek a more risky adventure activity	Equal variance assumed	.075	.785	-5.4	421	.000***	-1.07	.20	-1.45	-.68
	Equal variance not assumed			-5.4	342.2	.000***	-1.07	.20	-1.45	-.68
In the future I will do this activity by myself (no guide)	Equal variance assumed	22.681	.000	4.4	421	.000***	.82	.18	.46	1.17
	Equal variance not assumed			4.3	330.4	.000***	.82	.19	.45	1.19

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.5 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Rafting (n = 242) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	Upper
In the future I will seek a less risky adventure activity	Equal variance assumed	71.284	.000	-4.6	429	.000***	-.56	.12	-.79	-.32
	Equal variance not assumed			-4.2	246.8	.000***	-.56	.13	-.81	-.30
In the future I will not do this activity again	Equal variance assumed	28.616	.000	-3.3	429	.001**	-.53	.16	-.84	-.22
	Equal variance not assumed			-3.2	316.4	.001**	-.53	.17	-.86	-.21
In the future I will seek a more risky adventure activity	Equal variance assumed	.107	.744	-0.8	429	.373	-.18	.20	-.56	.21
	Equal variance not assumed			-0.8	401.2	.373	-.18	.20	-.56	.21
In the future I will do this activity by myself (no guide)	Equal variance assumed	.278	.598	2.6	429	.008**	.43	.16	.12	.75
	Equal variance not assumed			2.6	395.3	.008**	.43	.16	.11	.76

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.6 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Sailing (n = 181) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	Upper
In the future I will seek a less risky adventure activity	Equal variance assumed	7.481	.007	-1.6	368	.108	-.25	.16	-.56	5.61
	Equal variance not assumed			-1.6	357.0	.107	-.25	.16	-.56	5.47
In the future I will not do this activity again	Equal variance assumed	8.362	.004	-2.0	368	.039*	-.39	.19	-.75	-2.00
	Equal variance not assumed			-2.0	360.6	.038*	-.39	.19	-.75	-2.14
In the future I will seek a more risky adventure activity	Equal variance assumed	.320	.572	-5.9	368	.000***	-1.24	.21	-1.65	-.83
	Equal variance not assumed			-5.9	367.9	.000***	-1.24	.21	-1.65	-.83
In the future I will do this activity by myself (no guide)	Equal variance assumed	20.826	.000	6.3	368	.000***	1.25	.20	.86	1.64
	Equal variance not assumed			6.2	347.5	.000***	1.25	.20	.86	1.64

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

To conclude the analysis for Hypothesis 6, it can be said that the adventure tourists intention to repeat the adventure tourism activity does vary between activities, that have different levels of perceived risk, and therefore the null hypothesis may be rejected.

7.2 Testing Hypothesis 7: Post-Event Intentions Regarding Injury Insurance

H7: The adventure tourists' future intention to pay for injury insurance will vary between different adventure tourism activities.

It is apparent that none of the participants in the three groups would prefer to pay for injury insurance before participating in the adventure tourism activity again. This can be seen diagrammatically in Figure 7.2, and by the evidence in Tables 7.7, 7.8 and 7.9 which shows the analysis of the t-tests. As there are no significant differences between these groups, the null hypothesis may be rejected.

Figure 7.2 Comparison of Mean Responses to Post-Event Intentions Regarding Injury Insurance.

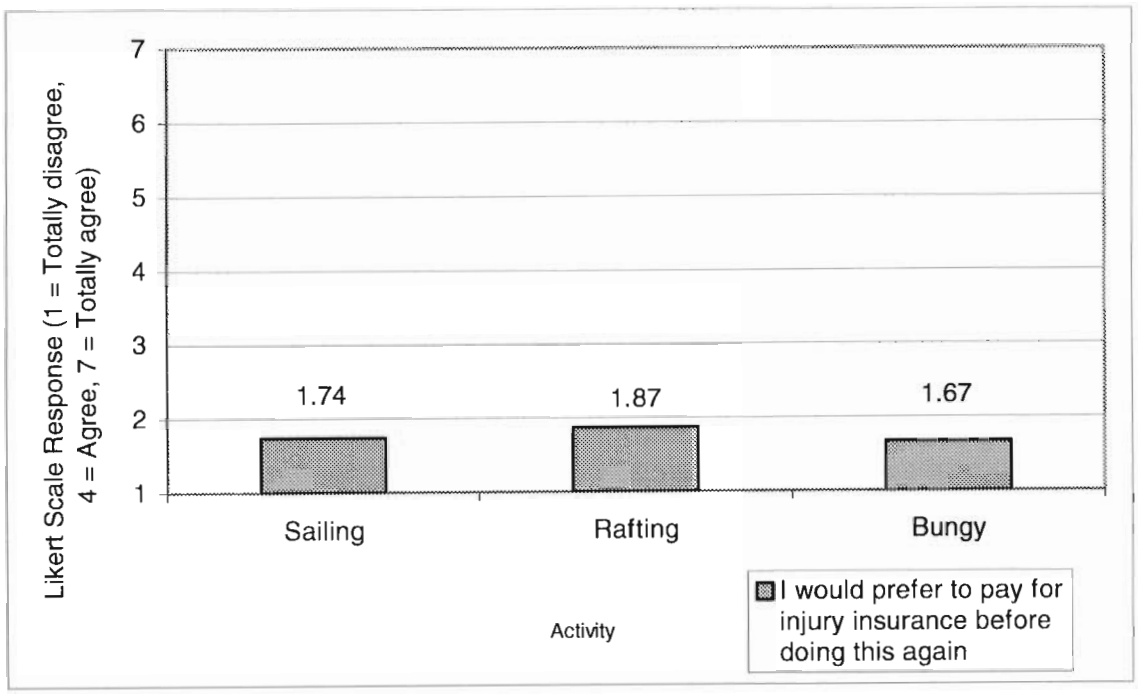


Table 7.7 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Sailing (n = 181) and Rafting (n = 242) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
									Lower	Upper
I would prefer to pay for injury insurance before doing this again	Equal variance assumed	.292	.589	-.9	421	.361	-.13	.14	-.41	.15
	Equal variance not assumed			-.9	377.9	.365	-.13	.14	-.41	.15

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.8 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Rafting (n = 242) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
									Lower	Upper
I would prefer to pay for injury insurance before doing this again	Equal variance assumed	.236	.628	1.4	429	.138	.20	.13	-6.4	.46
	Equal variance not assumed			1.5	416.2	.134	.20	.13	-6.4	.46

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.9 Testing the Difference in Mean Responses to Post-Event Future Adventure Activity Intentions Between Sailing (n = 181) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff.	
									Lower	Upper
I would prefer to pay for injury insurance before doing this again	Equal variance assumed	.963	.327	.470	368	.639	6.86	.15	-.22	.36
	Equal variance not assumed			.469	358.5	.640	6.86	.15	-.22	.36

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

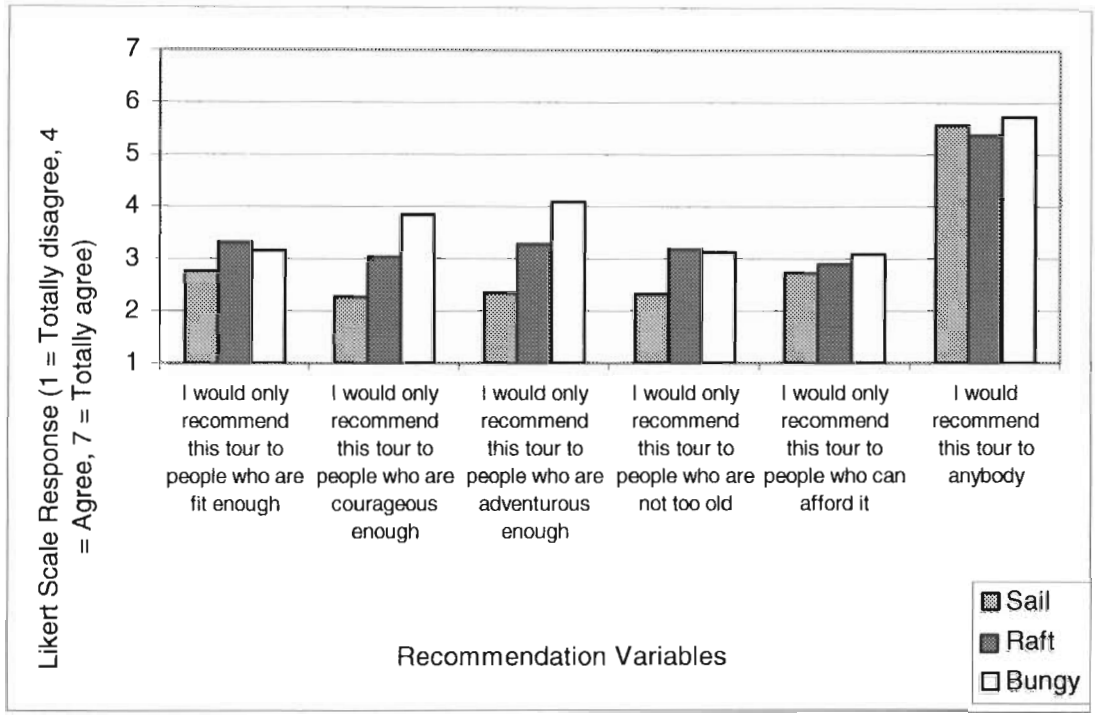
7.3 Testing Hypothesis 8: Post-Event Intentions Regarding Recommendations

H8: The adventure tourists' intention to recommend a particular adventure tourism activity will vary between different adventure tourism activities.

There do not appear to be many qualifications that adventure tourism participants place on providing recommendations to other people, in terms of suggesting they also

participate in the activity. It can be seen in Figure 7.3 that participants from the three activities would all recommend the activity to anybody. However, it can also be seen in Figure 7.3 that while bungy jumping participants agree with the statement "I would only recommend this activity to people who are adventurous enough", the whitewater rafting and sailing participants do not.

Figure 7.3 Post-Event Recommendations by Activity.



Significant differences between the three groups begin to appear when t-tests between the three paired groups are analysed. The least amount of difference (two items) appears when the whitewater rafting and bungy jumping participants are compared. Table 7.11 shows that the only two significantly different items tested are "I would only recommend this to people who are courageous enough" and "I would only recommend this to people who are adventurous enough". There are no significant differences in the remaining four items.

The greatest difference between samples appears when the sailing participants are compared to either the whitewater rafting or bungy participants. In the first instance,

Table 7.10 shows that four of the six items are significantly different. There is no difference in the way that the sailing and whitewater rafting participants intend to make future recommendations in regard to whether people can afford the experience, or indeed to exclude anybody from their recommendations, as they both agree that they would recommend it to anybody. The significant differences do appear when the items relating to fitness, courage, sense of adventure, and age are considered.

These differences between the sailing and whitewater rafting participants are very similar to the sailing and bungy participants (shown in Table 7.12), except that there is no significant difference in the way they would recommend the experience to another person based on their level of fitness. This seems logical when one considers that either sitting on a yacht or falling from a bungy tower requires less physical fitness compared to paddling a six person raft down a river.

Having considered the t-test analysis in Tables 7.10, 7.11 and 7.12, it can be said that the adventure tourists' intention to recommend a particular adventure tourism activity, does vary between different adventure tourism activities, and so the null hypothesis may be rejected.

Table 7.10 Testing the Difference in Mean Responses to Post-Event Recommendations Between Sailing (n = 181) and Rafting (n = 242) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	Upper
I would only recommend this tour to people who are fit enough.	Equal variance assumed	.202	.653	-3.0	421	.002**	-.56	.18	-.92	-.20
	Equal variance not assumed			-3.0	388.4	.002**	-.56	.18	-.92	-.20
I would only recommend this to people who are courageous enough.	Equal variance assumed	.049	.825	-4.6	421	.000***	-.77	.16	-1.09	-.44
	Equal variance not assumed			-4.6	395.7	.000***	-.77	.16	-1.09	-.44
I would only recommend this to people who are adventurous enough.	Equal variance assumed	.959	.328	-5.6	421	.000***	-.93	.17	-1.26	-.61
	Equal variance not assumed			-5.7	404.0	.000***	-.93	.16	-1.25	-.61
I would only recommend this to those people who are not too old.	Equal variance assumed	.093	.761	-5.0	421	.000***	-.86	.17	-1.20	-.52
	Equal variance not assumed			-5.0	390.8	.000***	-.86	.17	-1.20	-.52
I would only recommend this to those who can afford it.	Equal variance assumed	2.857	.092	-.9	421	.349	-.17	.18	-.52	.18
	Equal variance not assumed			-.9	367.5	.356	-.17	.18	-.52	.19
I would recommend this tour to anybody.	Equal variance assumed	.047	.829	.9	421	.340	.18	.18	-.19	.54
	Equal variance not assumed			.9	386.9	.341	.18	.19	-.19	.54

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.11 Testing the Difference in Mean Responses to Post-Event Recommendations Between Rafting (n = 242) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	Upper
I would only recommend this tour to people who are fit enough.	Equal variance assumed	5.467	.020	.8	429	.381	.17	.19	-.21	.54
	Equal variance not assumed			.8	378.6	.388	.17	.19	-.21	.54
I would only recommend this to people who are courageous enough.	Equal variance assumed	21.481	.000	-4.2	429	.000***	-.79	.19	-1.16	-.43
	Equal variance not assumed			-4.1	346.6	.000***	-.79	.19	-1.17	-.42
I would only recommend this to people who are adventurous enough.	Equal variance assumed	11.173	.001	-4.2	429	.000***	-.80	.19	-1.17	-.43
	Equal variance not assumed			-4.1	356.5	.000***	-.80	.19	-1.18	-.42
I would only recommend this to those people who are not too old.	Equal variance assumed	9.344	.002	.3	429	.748	5.9	.18	-.30	.42
	Equal variance not assumed			.3	368.2	.753	5.9	.19	-.31	.42
I would only recommend this to those who can afford it.	Equal variance assumed	8.565	.004	-1.0	429	.300	-.19	.18	-.55	.17
	Equal variance not assumed			-1.0	366.9	.310	-.19	.19	-.55	.18
I would recommend this tour to anybody.	Equal variance assumed	1.083	.299	-1.8	429	.067	-.33	.18	-.69	2.27
	Equal variance not assumed			-1.8	407.8	.066	-.33	.18	-.69	2.19

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

Table 7.12 Testing the Difference in Mean Responses to Post-Event Recommendations Between Sailing (n = 181) and Bungy (n = 189) Participants.

Post-Event Intention		Levenes test for equality of variances		t-test for equality of means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.	95% confidence interval of the diff. Lower	Upper
I would only recommend this tour to people who are fit enough.	Equal variance assumed	3.386	.067	-1.8	368	.059	-.39	.21	.80	1.48
	Equal variance not assumed			-1.9	365.7	.058	-.39	.21	.80	1.48
I would only recommend this to people who are courageous enough.	Equal variance assumed	21.429	.000	-7.7	368	.000***	-1.56	.20	-1.96	-1.16
	Equal variance not assumed			-7.7	347.4	.000***	-1.56	.20	-1.96	-1.17
I would only recommend this to people who are adventurous enough.	Equal variance assumed	16.494	.000	-8.7	368	.000***	-1.74	.20	-2.12	-1.35
	Equal variance not assumed			-8.8	346.4	.000***	-1.74	.20	-2.12	-1.35
I would only recommend this to those people who are not too old.	Equal variance assumed	9.667	.002	-4.0	368	.000***	-.80	.20	-1.19	-.41
	Equal variance not assumed			-4.0	361.5	.000***	-.80	.20	-1.19	-.41
I would only recommend this to those who can afford it.	Equal variance assumed	1.343	.247	-1.7	368	.085	-.36	.21	-.76	4.89
	Equal variance not assumed			-1.7	367.5	.084	-.36	.21	-.76	4.89
I would recommend this tour to anybody.	Equal variance assumed	.555	.457	-.805	368	.422	-.16	.19	-.54	.23
	Equal variance not assumed			-.804	366.2	.422	-.16	.19	-.54	.23

Note: Significance levels - *p<0.05 **p<0.001 ***p<0.000

8 Chapter 8: Conclusion

This final chapter will provide a review of the study, initially highlighting those parts that are pertinent to the first four of the five study aims (refer to page 23), before addressing the final aim which deals with the formulation of specific marketing strategies. This will then lead to a generalised discussion about adventure tourism, before discussing the limitations of this study, as well as directions for future research into adventure tourism.

The first seven chapters of this study have sought to understand the way in which the perception of risk interplays with other elements of the adventure tourism experience. More specifically, the study has attempted to initially examine the perceived risk of sustaining physical injury as a motivation for adventure tourism participation by Australian domestic tourists and international tourists visiting Australia who have English as a first language. As was mentioned in Chapter 1, the ironic and unique situation that adventure tourism finds itself in, is that while most people generally seek to reduce the amount of physical risk they encounter in their lives, many also actually seek, or at the very least accept, that the adventure activity they are about to engage in, has the distinct chance of causing physical harm. If this were not the case, then the activity being engaged in would not be an example of adventure tourism as defined in this study (refer to page 15).

The role of the commercial adventure tourism operator is to understand the importance of this perceived chance of sustaining physical injury among the other elements of the experience, and to create a balance between these elements, as well as the real and perceived risks involved in the experience. This concept was discussed in section 1.2 as one of three key variables (that being "the careful management of the experience") used in the working definition of adventure tourism.

In order to shed light on this topic, a total of 612 people participating in the activities of white water rafting, bungy jumping or sailing were surveyed both before and after the adventure tourism experience. These three activities have been previously identified as examples of adventure tourism, as shown in Table 1.1. While it was found that these 612

people were generally motivated by having exciting experiences, wanting to do something adventurous and having the chance of seeing or experiencing something new (as can be seen in Figure 5.1), on testing Hypothesis 1 it appeared that the three individual groups differed greatly in the way they wanted to experience risk. The results of T-Tests (shown in Tables 5.29 and 5.30) established that a ranked order of different adventure tourism activities, exists in relation to risk as a motivation. This order, ranging from a high level of risk as a motivation, to a low level of risk as a motivation, is bungy jumping, followed by white water rafting, and then followed by sailing.

Of particular interest was the finding that prior experience in the given activity did not present itself as a factor that lowered risk as a motivation in the three activities studied. There is no significant difference among the 612 adventure tourists surveyed in the way in which those with or without prior experience in the particular activity are motivated by the risk factor. This finding from Hypothesis 2 (refer to section 5.6) is quite different from those arrived at by Bettman, 1973, Cheron and Ritchie, 1982, Priest, 1992, 1993, Robinson, 1992, McIntyre, 1992, Kuentzel and McDonald, 1992, and Zuckerman, 1990. All of these authors contend that perceived risk diminishes as experience in the activity increases. One reason for this is the cost of doing either whitewater rafting, bungy jumping or sailing ($AUD145, $AUD125, and $AUD89 respectively). This cost may mean that people only choose to do these activities occasionally, and therefore not build up an extensive experience base that allows them to become more used to the dangers, thrills and general excitement that helps give meaning to their perceptions of risk.

Another reason for this difference in the Hypothesis 2 finding and the findings of other authors in relation to diminishing levels of perceived risk and prior experience is that the previous researchers studied activities such as rock climbing and mountain climbing. These adventure activities require a great deal of time, knowledge, and energy to master. Whereas, people engaging in either of the activities surveyed (white water rafting, bungy jumping and sailing) require no prior experience at all. This "no prior experience needed" element of the experience is more relevant in tourism today, where adventure activities are often mass marketed attractions that are not limited to just a few dedicated enthusiasts. Therefore, the years of experience required for rock climbing or mountain

climbing may indeed dull the perceived risk factor, while at the same time enhancing other intrinsic motivations, such as a sense of personal achievement. This difference in adventure tourism activity marketing has not been well researched, and is now very important for commercial providers of "no prior experience needed" adventure activities, who increasingly dominate the popular marketplace.

Examples of other high perceived risk, or "extreme", adventure tourism activities that have a "no prior experience" condition include those activities that allow an experienced guide to take control of the situation and allow the participant (the adventure tourist) to be a passive, although exhilarated, passenger. Tandem sky-diving is a good example of this. In this situation the participant pays as much as $AUD300, and is only given a 20 minute briefing on the ground before participating in a 10,000 foot jump. Other examples of "no prior experience needed" adventure tourism activities include tandem hang-gliding, tandem paraponting (gliding from high on a mountain under a specially designed parachute), or taking a ride in a specially installed passenger seat of a high-powered race car. All these activities allow the participant to get an idea of what an experienced sky-diver, hang-glider pilot, paraponter, or racing car driver experience, without having to outlay a larger amount of time and money in order to do the activity on a solo basis. It may be argued that what the adventure tourist misses out on experiencing the finer points of the activities such as judging where to exit the aircraft so that you have a good chance of landing where you want to, judging and adjusting to wind changes, having knowledge of environmental factors such as warm rocks causing thermal updrafts, or knowing which tyres to put on the vehicle to give the optimum ride. This knowledge comes through experience. However, this is characteristic of the mass tourism (or consumer) experience common today.

Another point to consider with the three activities studied (whitewater rafting, bungy jumping and sailing) is that participants rarely go on to do these activities on a self organised, or recreational, basis. It is not common for people to buy a raft and go whitewater rafting with a group of friends. It is far more common for people who get a taste of going down rivers to move on to kayaks or other one or two-person vessels. Reasons for this include cost and logistics as the cost of buying a 6 person raft is as much

as $AUD5,500 as opposed to a one man kayak for $AUD1,980 (Paddlesports.com.au). Logistically, it is much easier to transport a kayak and organise a trip with a few people than it is to get a group together to go rafting. Similarly, the cost of building a bungy tower and maintaining bungy cords on an individual basis would be far too restrictive for most people to do themselves. Likewise, purchasing a sailing boat is for most people a large financial undertaking. However, sailing does not need to be done on a 16 metre vessel such as the Ocean Free (the yacht used in this study). It can be done on a self-organised basis by purchasing a smaller, and much cheaper, yacht that can be transported by trailer, and yet offer a similar experience.

It could be argued that whitewater rafting and bungy jumping represent a category of adventure tourism activities that could best be described as having an "adventure repetition ceiling". Once people have done these activities a few times, they choose not to repeat it either because of the cost, or because the perception of risk has diminished through repeated exposure. This proposition is supported by the finding in Tables 5.44 and 5.45 where it can be seen that 66.5% of whitewater rafting participants and 78.8% of bungy jumpers had never done the activity before, compared to only 27.6 of sailing participants. It may be that the "adventure repetition ceiling" for these adventure tourism activities is one.

Other adventure tourism activities that may fall into this category of "adventure repetition ceiling" include adventure rides at theme parks. Theme park rides in Australia such as the roller coaster at "Movie World: Hollywood on the Gold Coast" known as "Lethal Weapon" offers "the most exhilarating thrill ride experience over 765 metres of non-stop drops, dives, bends, rollovers, sidewinders, double spins, loops and plunges!" (http://www.movieworld.com.au). Rides like this may be a once in a lifetime experience for most patrons because each time they do it, they become more familiar with the ride, get used to the experience, and diminish their level of perceived risk.

Hypothesis 3 (refer to section 5.7) sought to test for differences in the way in which different nationalities in the sample perceive risk. The importance of undertaking this analysis is that if significant differences are found, then distinctly different marketing

initiatives could be designed for domestic and international tourists. It was found that no significant differences exist based on this division. The study confirmed that English speaking tourists in the sample can be considered as being very similar in the way in which they perceive risk as a motivation for participation in the three adventure tourism activities used in this study. As such, the issue of cultural variation on the motivation for risk in adventure tourism is not studied as no difference was found between the major English speaking nationalities in the sample.

The establishment of the three distinct groups of adventure tourists based on risk, those seeking a high level of risk (bungy jumpers), those seeking an intermediate level of risk (white water rafting participants), and those seeking a low level of risk (sailing participants), is helpful in addressing the first aim of this study. This aim seeks to determine the importance of experiencing risk in choosing to participate in different adventure tourism activities. Although the activities used in this study were chosen on the basis that the level of perceived risk would vary between the activities, this was not known to be the case prior to analysis. There are no other studies that indicate a rank order of perceived risk in commercial adventure tourism activities. Subsequent analysis determined that the expected variation and ranking of the three adventure activities ranging from bungy jumping as the highest perceived risk to sailing the lowest perceived risk was in fact correct. Consequently, each sample (collected independently) may be treated independently of each other and may be compared and contrasted against each other. This was done in section 6.1 when the degree to which the participants identified with 15 different motivational items was analysed to test Hypothesis 4 (refer to page 173). Significant differences (at a confidence level of 95%) exist between the groups. For example, it was found that sailing participants are much more motivated to have a learning experience in the natural environment, that whitewater rafting participants are more inclined to seek out nature and to escape the built environment in a social setting, while bungy jumpers want exciting, risky adventurous experiences that they can tell their friends about at a later date.

Further differences were discovered when a Principal Components Analysis was conducted (refer to Section 6.2.1) to determine the multivariate structure of motivations

and how they might differ between the three groups. These findings show that the sailing participants are more complex in the way they are motivated, with a total of five motivational dimensions. This is in contrast to the bungy jumpers whose motivations appear to be more basic, and based upon the three dimensions of experience, risk and novelty. A total of four motivational dimensions were identified for the white water rafting participants, suggesting nature, risk, escape and novelty as reasons for participation.

It should be recognised that while significant differences have been identified between these three groups, they are not necessarily mutually exclusive. An individual tourist on holiday at a particular destination, in this case Cairns, may choose to participate in all three of the adventure tourism activities used in this study over the course of their stay. However, the important fact is that the reasons for choosing to participate in these particular activities are different. The relevance of this becomes apparent when the final aim of the study (to develop specific marketing strategies for Australian domestic and inbound adventure tourists with English as a first language) is addressed. However, before getting to this point, the third and fourth aims need to be addressed.

It is logical to suggest that all tourism providers seek to provide satisfying experiences for their clients. Satisfied customers may become repeat visitors, provide favourable word of mouth to prospective customers, as well as give the service provider a sense of satisfaction in providing their customer with a memorable and high quality experience. The third aim of this study was designed to measure the level of satisfaction of the adventure tourists involved in each of the three activities using a model based on the SERVQUAL methodology, and tested by Hypothesis 5 (refer to Section 6.2). While it may be convenient to say that each of the three groups tested were simply either satisfied or not satisfied with the experience, this is not the objective of this study. As 21 items have been used to determine satisfaction, and different combinations of inferred satisfaction and dissatisfaction have been found for each item and each activity, the task is more complex. The methodology used in this study is capable of measuring the various components of satisfaction that can then be used to aid in the development of future marketing strategies. Table 6.14 summarises the post minus pre event satisfaction

measurements and shows that sailing participants have the most inferred dissatisfaction. However, the sailing participants were the only people who were satisfied with "value for money". For the sailing operator to gain 21 inferred satisfactions out of 21 satisfaction items, they would need to improve the equipment, the competence of the staff, the amount of enjoyment reported by their clients, the number of new skills learnt by their clients, the amount of fun had, and the visibility of wildlife. However, these clients are not seeking a great deal of risk in the experience, and so the dissatisfied item of "getting scared" loses relevance for sailing. These participants do not want to get scared.

The case for bungy jumpers is quite different. These participants are seeking a high degree of perceived risk. While this group wanted to get scared as a result of the perceived risks associated with the activity, they were not scared as much as they expected to be. This finding was confirmed when the participants recorded the highest of the three activities tested when asked if they would seek a more risky adventure activity to do in the future (refer to Figure 7.1). Ways in which bungy jumping can be made to appear more risky may include suggesting other ways of jumping to the participant. The jump-masters in charge of the operation at the top of bungy towers are familiar with this strategy, and often send people with previous bungy jumping experience off the tower in different ways. These different ways include backward jumps, tandem jumps, hand-stand jumps, or even jumping with the participant tied to a motorised scooter. These methods are all designed to maintain the excitement, thrill and level of perceived risk in the activity, so that the participant may be compelled to repeat the experience.

As with the bungy jumpers, the white water rafting participants were not as scared as they expected to be. They were also not as physically challenged as they had hoped. It is much more difficult for the providers of this service to manipulate the experience in ways that appear more risky, as can be done with bungy jumping. However, the Principal Components Analysis for this group (refer to Table 6.2) shows that their main motivations are centred around items such as the natural beauty of the site, to be close to nature, to see wildlife in detail and to experience nature in a unique or different way. These parts of the experience can much more easily be emphasised by the service provider, while still maintaining, or at least not diminishing, the thrill and excitement.

8.1 Specific Marketing Strategies

As previously discussed, Murphy and Enis (1986, p. 24) offer the 1985 American Marketing Association definition of marketing as being the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organisational objectives. The three adventure tourism activities discussed in this study have obviously been conceived, so the "conception" part of the Murphy and Enis (1986, p. 24) definition does not need to be addressed. The price of the tour has not been fully explored in this study, as the focus has been on perceived risk as a motivation. Therefore, this section of the study will address the promotion and distribution of the service. As the three groups can be considered as distinctly different in terms of the way in which they perceived risk, and also in the resultant activity specific information generated, strategic marketing proposals concerning each activity are dealt with separately. This will be followed by a more generalised discussion of perceived risk in adventure tourism, before examining the limitations of this study and possibilities for future research.

8.1.1 Strategic Marketing Proposals for Whitewater Rafting

The promotion of white water rafting should reflect the motivations that initially attract paying clients. As previously mentioned, nature plays an important part in the reasons for participation. Therefore, promotional material in the form of brochures, posters, paint schemes on the sides of buses used to transport clients to the river and promotional videos should maximise the natural components of the experience. Crystal clear waters flowing over granite boulders through a lush tropical rainforest alive with native birds are images that might work in this case. This needs to be coupled with the excitement of whitewater rafting in such an environment.

In section 5.9.3 there is a discussion about the finding that differences exist between the three samples in the way that the participants source information. There are also differences in the degree of influence that each information source had on the potential adventure tourists. In the case of whitewater rafting, the most popular means of gathering

information has been from brochures and word of mouth from acquaintances and friends or family members. Therefore, it is vital for the providers of this service to ensure that the distribution of promotional material reflects the motivations of this group, and that they ensure the clients leave the experience satisfied, and therefore more likely to tell other potential clients about the experience. It may also be worthwhile to include in the price of the ticket "free" visible advertising such as t-shirts, bumper stickers or other such merchandise to be given to the participant before they leave. Photos and videos of the participant can also aid in advertising through word of mouth. This positive word of mouth is important in that while it is unlikely that the participant will actually repeat the experience themselves, if only because of the "adventure repetition ceiling", it would be advantageous for them to encourage others to participate.

Another important factor with the white water rafting group is that they are greatly influenced by newspaper and magazine stories or articles seen in their hometown. This suggests that a means of promotion might include visiting journalists who experience the whitewater rafting trip on an arranged basis, so that they may write positive stories about the experience. State government tourist bodies such as Tourism Queensland have Media and Publicity Department whose role it is to "research, plan and escort travel itineraries for selected visiting journalists" (http://www.tq.com.au/media/how-we-can-help-you/how-we-can-help-you_home.cfm). Linking into programs such as this would be of great benefit.

8.1.2 Strategic Marketing Proposals for Sailing

The 181 sailing participants were the group that had the most previous experience (72% of total participants) in the activity when compared to whitewater rafting participants (33%) and bungy jumpers (20%). Additionally, 39 of the sailing participants had done the activity 10 times or more and is evident in Table 5.45. This level of familiarity suggests that clients have a reasonable amount of knowledge about how a sailing experience should unfold, and that the activity has a higher adventure repetition ceiling than either whitewater rafting or bungy. It has already been mentioned that these participants have very little interest in any of the risks that may be involved in the

activity, and they are more motivated by factors such as novelty, nature and escapism (as seen in Table 6.4). Judging by the spread of ages shown in Table 5.47, this is most definitely a family-based adventure activity. This aspect should also be reflected in promotional messages.

8.1.3 Strategic Marketing Proposals for Bungy Jumping

Bungy jumpers want to confront risk. This is the youngest group of the three surveyed with an average age of between 21 and 30. This group of adventure tourists sourced information about the activity as much from friends and family as they did from brochures. This highlights the importance of offering a high quality experiences to induce positive word of mouth from friends or family members (see Table 5.23 and 5.24). The operators of this tour need to ensure that their customers leave them satisfied with the amount of risk they experience.

The study findings show that bungy jumpers are seeking risk, although they do not expect to get injured. They are relatively young and source information through word of mouth communication. Consequently, the marketing needs to be fashionable in terms of words used to appeal to younger people, and focus upon terms indicating risk and adventure but not suggesting this will happen in the extreme. Concepts of "experience the thrill" suggest adventure but imply a safe outcome.

Satisfaction with the experience and the capacity to show others is important. Videos and photos of the experience, the social setting, and open display and clear viewing by friends and other participants are all important. Extrovert activity such as different forms of jumping, and a lively fun attitude by staff balanced with an obvious safety conscious approach. Satisfaction will generate word of mouth communication to future customers in due course.

8.2 A Generalised Discussion of Perceived Risk in Adventure Tourism

Perceived risk is an important part of the adventure tourism experience. Remove it from the experience, and it is no longer adventure tourism. However, perceived risk is not the

only, or indeed most important part of the experience. This study has shown that different adventure tourism experiences have different levels of perceived risk as well as different levels of other motivations, satisfactions, and post-event behaviours. The adventure tourism industry needs to understand how their particular client groups perceive their particular offerings. By doing this, they will be in a stronger position to "carefully manage the experience" in such as way as to increase the profitability of their tours by supplying experiences that adventure tourists demand.

8.3 Limitations

This study is not without limitations. The first limitation is the approach to measuring perceived risk. It was mentioned in section 4.7.3, that the question asking the participant to rate how they felt in regard to the statement "the reason I chose to do this activity was to experience risk" was used to measure risk. This item was placed amongst 14 items used to measure other aspects of motivation. This way of measuring perceived risk does present limitations that need to be recognised.

Table 1.1 shows 41 examples of adventure tourism that have been identified by other authors. However, only three activities from this list were selected to be used in this study. This may be interpreted as a limitation in that the three activities chosen may not be fully representative of adventure tourism activity. Another limitation linked with this issue is that the activities chosen for this study also took place in a single region, that being the area around Cairns, North Queensland, Australia. It may be that these activities in this region are not fully characteristic of all other activities, other regions, and other levels of risk.

8.4 Future Research

There is, potentially, a significant difference between East/West cultures in regard to perceived risk. The growing Asian marketplaces may warrant future research based on the East/West divide to indicate how marketing strategies should differ between the two groups.

More specific analysis of the geographical range of marketing may be relevant to adventure activities. For example, bungy jumping may have a low geographic threshold and, as such, not be the main reason for travel, whereas sailing may have a larger threshold. In other words, people may be more inclined to travel great distances to go sailing, whereas bungy jumping may not be the primary reason for distant destination selection. As such, more research into the size of potential markets for commercial adventure tourism may be warranted.

The level of "adventure repetition ceiling" may be of value as a measure of market size in adventure, and other consumer based, tourism activities. Such studies might also relate to the nature of the marketing required for different ceilings.

Further categorisation of the levels of perceived risk and the different marketing required for different types of risk requires further study, over a wider range of activities. In conducting such research, comparisons could be made with other non-adventure tourist activities that involve minimal or no perceived risk.

The adventure activities used in this study have all been offered on a commercial basis whereby the participant pays the service provider for a guided adventure tourism experience. It is suggested that much research needs to be done into the perceived risk of people travelling to distant destinations, as tourists, to undergo self-organised adventure experiences. Examples of this may include people travelling from Australia to Indonesia on self-organised surfing safaris whereby they themselves research the best time of the year to travel, book their own flights and accommodation, and hire local fishermen to take them from the beach to the reef breaks. This type of surfing experience is common. It would be interesting to find out what perceived risks would be too great for these types of adventure tourists. For example, would factors such as the lack of adequate medical facilities, the presence of large and aggressive waves breaking on sharp coral reef, or the chance of contacting an exotic disease dissuade some surfers from going to a particular destination?

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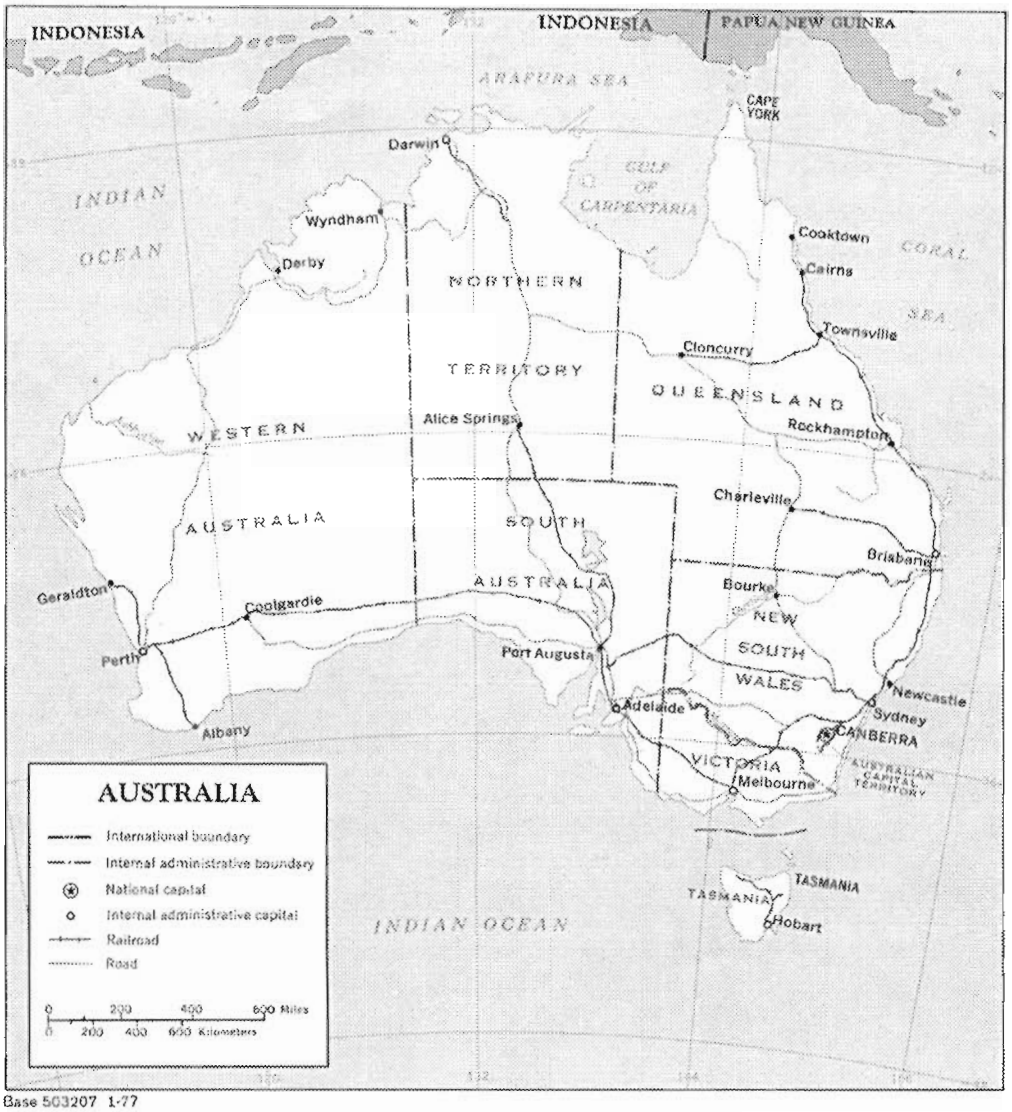
11 Appendices

Appendix 1 Map of Australia



Appendix 2 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Source: Hall, C.M., and McArthur, S., 1994, "Commercial Whitewater Rafting in Australia," New Viewpoints in Australian Outdoor Recreation Research and Planning, Mercer, Australia, pp. 109-118. (p. 115)
Factor: SAFETY
1. Guide Competence
2. Raft Condition
3. Past safety record
4. River rating
5. Group competence
6. Health insurance
7. Life insurance
Factor: ENVIRONMENTAL
1. Countryside in a natural state
2. Water quality for drinking
3. Wildlife visible
4. Undegraded campsite
5. Water quality for swimming
6. Uncrowded campsite
7. Number at campsite
8. Population of river/embankment
9. Amenities at campsite
Factor: ECONOMIC
1. Trip duration
2. Gear to be purchased
3. Trip cost
4. Other trip prices
Factor: ADVENTURE
1. Risks unpredictable
2. Unknown setting
3. Outcome uncertain
4. Unsure of ability
5. Unfamiliar equipment

Appendix 3 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Source: Geva, A., and Goldman, A., 1991, "Satisfaction Measurement in Guided Tours," **Annals of Tourism Research**, Vol. 18, pp. 177-185.(p.180)
1. The guide's expertise
2. The guide's relations with the participants
3. The company's handling of the tour arrangements
4. The tour itinerary
5. Local services
6. Hotels
7. Meals
8. Order and organisation
9. Entertainment activities
10. The relations and interactions among group members
11. The cohesion and morale of the tour group
1. Manner in which free time was spent
2. Richness of the experience in the tour
3. Allocation of time among the different type of activities

Appendix 4 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Lousnbury, J.W., and Hoopes, L.L., "An Investigation of Factors with Vacation Satisfaction," **Journal of Leisure Research**, Vol. 17, No. 1, pp. 1-13. (p. 7)
Factor: RELAXATION AND LEISURE
1. The way your plans work out
2. The way you felt emotionally
3. The way you felt physically
4. The pace of life you experienced
5. Your opportunities for engaging in your favourite leisure activities
6. The amount of fun you had
7. The amount of relaxation you had
8. Your opportunities for engaging in new leisure activities
Factor: ENVIRONMENT
1. The opportunities you had to be closer to nature
2. The weather
3. The amount of pretty scenery you saw
Factor: ESCAPE
1. Your opportunities for "getting away from it all"
2. Your opportunities for being alone
Factor: MARRIAGE AND FAMILY
1. How your children behaved
2. Your relationship with your spouse/lover
Factor: FOOD AND LODGING
1. The food you ate
2. The accommodations

Appendix 5 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Source: Hawes, D.K., 1979, "Satisfactions Derived From Leisure-Time Pursuits: An Exploratory Nationwide Survey," **Journal of Leisure Research**, Vol. 10, No. 4, pp. 247-264. (p. 254)
1. It will bring me peace of mind
2. It will give me a chance to learn about new things
3. It will give me a chance to get the most out of life while I can still enjoy it
4. It will provide me with an escape from home or family pressures
5. It will bring happy memories to mind after the occasion has passed
6. I will respect myself for doing these things
7. It will give me a chance to develop a skill
8. It will give me an opportunity to see and do new and different things
9. There will be adventure and excitement in it
10. It will give me a feeling of independence and self reliance
11. It will bring me into contact with friends
12. It will give me a chance to be lone with my thoughts
13. It will give me a chance to be alone in a quiet, peaceful spot
14. I will have a feeling of mastery of the activity
15. It will bring our family closer together
16. It will help achieve stronger family ties
17. It will provide me with a mental challenge
18. It will provide me with a problem to solve
19. It will give me a feeling of complete control over the outcome of the activity- what happens is strictly up to me
20. It will help me to understand myself better
21. It will provide interesting experiences which I can tell my friends about afterwards
22. It will give me a feeling of being creative
23. It will help me be healthy and should prolong my life
24. It will give me an opportunity to seek out and enjoy the wonders of nature
25. It will give me a chance to experiment with my style of living
26. It will give me a chance to meet new people
27. It will provide me with a physical challenge
28. It will provide a chance for intense physical activity
29. A lot of unexpected things will happen
30. There will be uncertainty involved in the activity
31. It will provide an educational experience
32. It will bring me recognition from other people
33. It will help me in my work
34. It will give me a chance to compete with others

Appendix 6 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Source: Morgan, D., 1998, "Adventure Tourists on Water: Linking Expectations, Affect, Achievement, and Enjoyment to the Adventure," **Department of Management Working Papers Series (60/98)**, Monash University, Melbourne. (p. 8)
Factor: SAFETY
1. Condition of equipment
2. Competence of guides
Factor: ENVIRONMENT
1. Able to see wildlife
2. Countryside in a natural state
Factor: ECOMONIC
1. Cost of the activity
2. Duration of the activity
Factor: ADVENTURE
1. Risks are unpredictable
2. Test of ability
Factor: EXPECTATIONS
1. Level of instruction
2. Importance of participants' use of their own skills
3. Likelihood of slight injury
4. Likelihood of serious injury

Appendix 7 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter
Source: Price, L., Arnould, E.J., and Tierney, P., 1995, "Going to Extremes: Managing Service Encounters and Assessing Provider Performance," **Journal of Ma**rketing, Vol. 59, pp. 83-97. (p. 86)
Factor: PROVIDER PERFORMANCE
1. Will provide challenges
2. Will make things fun
3. Will create team spirit
4. Will make me feel safe
5. Will take care of details
6. Will enjoy his/her job
7. Will perform as expected
8. Will make me feel safe
9. Will be skilled as a boat handler
Factor: AUTHENTIC UNDERSTANDING
1. Will be connected to my life
2. Will reveal something personal
3. Will be invited to reveal myself
4. Will understand me
5. Will seem like own person
6. Will be out of the ordinary
Factor: PROVISION OF EXTRAS
Will give me something extra
Will go out of his/her way
Will pay me special attention
Factor: PLEASURE
1. Happy
2. Elated
3. Pleased
4. Warm-hearted
Factor: NEGATIVE
1. Sad
2. Sorry
3. Regretful
4. Angry
Factor: SATISFACTION
1. Had some unique or special moments
2. Has special meaning to me
3. Was as good as I expected
4. Was satisfying to me
5. Stands out in my mind as one of my best experiences
6. Was worth the price I paid

Appendix 8 Attributes Used to Measure Expectations/Satisfaction of a Service Encounter

Source: Beard, J., Ragheb, M.G., 1980, "Measuring Leisure Satisfaction," **Journal of Leisure Research**, Vol. 12, No. 1, pp. 20-33. (pp. 27, 28 and 29)
Factor: PSYCHOLOGICAL
1. I freely choose the activities I do in my leisure time
2. My leisure activities are very interesting to me
3. I enjoy doing my leisure activities
4. I am frustrated in my free time
5. My leisure activities give me self confidence
6. My leisure activities give me a sense of accomplishment
7. I use many different skills and abilities in my leisure activities
8. I consider my leisure activities a waste of time
9. When I am doing leisure activities I become fully involved in the activity
10. My choice of leisure activities is limited by my lack of skills
11. I feel lonely in my free time
12. My leisure activities are intellectually challenging
13. Generally my leisure activities have a positive affect on my life
Factor: EDUCATIONAL
1. Some of my leisure activities give me broader experiences
2. I do leisure activities which restore my spirituality
3. I learn things in my leisure activities simply because I like learning them
4. My leisure activities encourage me to learn new skills
5. My leisure activities increase my knowledge about things around me
6. My leisure activities help to satisfy my curiosity
7. My leisure activities provide opportunities to try new things
8. My leisure activities help me to learn about myself
9. My leisure activities help me to learn about other people
10. My leisure activities help me to learn about society in general
11. My leisure activities help me to learn about nature
12. My leisure activities help me to accept differences among individuals
Factor: SOCIAL
1. My leisure activities allow me to reveal my thoughts, feelings, or physical skills to others
2. I have social interaction with others through leisure activities
3. My leisure activities have helped me develop close relationships with others
4. I prefer leisure activities in which I am among others in a group
5. The people I meet in my leisure activities are friendly
6. I associate with stimulating people in my leisure activities
7. I associate with people in my free time who enjoy doing leisure activities a great deal
8. I first met many of my present friends through leisure activities
9. I enjoy making myself useful to others in my free time
10. I have a strong sense of belonging toward those with whom I do leisure activities
11. I respect those with whom I do leisure activities
Factor: RELAXATION
1. My leisure activities help me to relax
2. My leisure activities help relieve stress
3. My leisure activities contribute to me emotional well being
4. I engage in leisure activities simply because I like doing them
Factor: PHYSIOLOGICAL
1. My leisure activities are physically challenging
2. I do leisure activities which develop my physical fitness
3. I do leisure activities which restore me physically
4. My leisure activities help me to stay healthy
5. My leisure activities help control my weight
6. My leisure activities help me maintain my energy level
Factor: AESTHETIC
1. The areas or places where I engage in my leisure activities are fresh and clean
2. The areas or places where I engage in my leisure activities are interesting
3. The areas or places where I engage in my leisure activities are beautiful
4. The areas or places where I engage in my leisure activities are well designed
5. The areas or places where I engage in my leisure activities are pleasing to me

Appendix 9 The International Visitor Survey (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 4)

The international visitor survey (IVS) is a major ongoing survey conducted by the Bureau of Tourism research (BTR). Information from the IVS is compiled and published on a quarterly and annual basis. The survey is the major source of information on the personal characteristics, travel behaviour and expenditure patterns of international short-term visitors aged 15 years and over. Short-term visitors are those visitors who stay in Australia for less than 12 months. Until 1996 a sample of around 12,000 visitors was surveyed each year. From 1997 onwards, this sample has been increased to approximately 20,000 visitors per annum.

Appendix 10 The IVS Rural Supplement (O'Halloran, Cook, Sbragi and Buchanan, 2000, p. 4)

In order to collect specialised or more detailed information, supplementary surveys are sometimes conducted in conjunction with the IVS. Much data for this study (Rural Tourism in Australia: The visitor's perspective) was collected via a supplementary survey of international visitors who visited rural areas during their stay in Australia.

The IVS Rural Supplement was conducted between July 1995 and June 1996. International visitors aged 15 years or more, who stayed at least one night in a rural region were defined as rural visitors and formed the sample for the IVS Rural Supplement. The supplementary survey was designed to collect information and impressions of one rural region visited by the respondent, specifically the rural region in which they spent the longest period of time.

Appendix 11 Survey Instrument Cover Letter

Victoria University Research Survey

This is a very important part of a Ph.D research project being conducted at Victoria University and being supervised by Dr. Lindsay W. Turner. I would greatly appreciate you spending 8 or 10 minutes fully filling out both parts of this survey. Participation in this research is entirely voluntary.

Please note that all information provided by yourself will be treated as strictly confidential. You will be asked to supply a fictional nick name or other form of identification so that the two parts of the survey can be matched together. Please rest assured that your real name, address or telephone number are not required.

This research is important in determining the expectations and motivations of tourists who undertake adventurous tourist activities so that services, marketing and satisfaction can be improved. It is our aim to provide tourists with quality experiences.

Your completing and returning this survey will be considered an indication of your consent.

If you have any concerns about the manner in which this research has been conducted, please contact the following:

Dr. Lindsay.W.Turner
PO Box 351, Bachus Marsh. VIC. 3340
Phone (03) 53 671 127

Thank you for your time and help.

Martin Fluker,
Department of Hospitality, Tourism and Marketing.

Appendix 12 Introductory Script

"Good morning. My name is Martin Fluker and I am currently conducting fieldwork for my Ph.D on adventure tourism. The operator of this tour has kindly allowed me to ask you folk if you would take the time to fill out a short questionnaire. I only require people who have english as a first language to fill these out. I will give you the first part of the questionnaire shortly, and ask you to fill in the second part after you have completed today's activity. I do not need to know your real name, however, in order for me to match the two parts together at the end of the day, I'll ask you to choose a nick name, or some other indicator, and write this on the top of the questionnaire. Please remember to use the same name on both questionnaires. Thank you for your cooperation."

1. This is **part one** of a two part questionnaire. In order to match both parts together at the end of the day, please provide a fictional nick name or some other form of identification:

---

2. Please identify the activity you will be participating in **today** by ticking the appropriate box:

☐ Whitewater Rafting	☐ Scuba diving	☐ Ballooning
☐ Bungy Jumping	☐ Snorkeling	☐ Sailing

Please indicate how you feel about each of these statements by ticking the appropriate box.

3. The reason I chose to do this activity was:

	Totally disagree 1	2	3	Agree 4	5	6	Totally agree 7
to see the natural beauty of the site I will be visiting							
to have an opportunity to be with friends and family							
to have a chance of seeing or experiencing something new							
to be close to nature							
to have exciting experiences							
to escape towns and cities							
to have an opportunity to rest and relax							
to experience risk							
to see wildlife in detail							
to have an educational or learning experience							
to escape tourism masses and crowds							
to be physically active							
to do something that I can tell my friends about							
to experience nature in a unique or different way							
to do something adventurous							

4. Today, I expect that:

	1	2	3	4	5	6	7
the staff will be friendly							
the equipment will be in good order							
the staff will be competent							
the environment will be in a natural state							
I will be capable of performing tasks asked of me							
I will get scared							
I will enjoy myself							
I will be physically challenged							
the weather conditions will allow me to enjoy this activity							
other people in the group will not stop me from enjoying this activity							
I will not require any additional insurance than I currently have							
I will get value for money							
I will be unfamiliar with the equipment being used							
I will get injured							
the staff will understand my level of competence in this particular activity							
the place I visit today will not be too crowded							
the risks associated with this activity will be unpredictable							
I will learn new skills							
I will have fun							
a lot of unexpected things will happen							
wildlife will be visible							

Please turn this page over and fill in the other side

5. Please indicate on the left side, the **information sources** that you used in finding out about this particular activity, and on the right side, the amount of **influence** that source had in helping you choose this activity:

Please tick the relevant boxes

	Not influential 1	2	3	Influential 4	5	6	Extremely influential 7
☐ From newspaper or magazine advertisements seen **in Cairns**							
☐ From newspaper or magazine advertisements seen **in my home town**							
☐ From brochure at a hotel/motel of backpackers accommodation							
☐ From newspaper/magazine stories/articles seen **in Cairns**							
☐ From newspaper/magazine stories/articles seen **in my home town**							
☐ From a travel guide or book (please write which one).....							
☐ From travel agent/booking agency **in Cairns**							
☐ From travel agent/booking agency **in my home town**							
☐ From the internet							
☐ From radio or TV **in Cairns**							
☐ From radio or TV **in my home town**							
☐ By word of mouth from an acquaintance							
☐ By word of mouth from a friend or family member							
☐ Other (please write what other).....							

6. Have you done this particular activity before?

☐ no ☐ yes → If "yes", how many times have you done this? _____

7. Please indicate which of these adventure activities you have done in the past and how many times you have done them:

tick the box		How many times?	tick the box		How many times?	tick the box		How many times?
☐	Bungy jumping		☐	Whitewater rafting		☐	Tandem skydiving	
☐	Rock-climbing		☐	Snorkeling		☐	Bush walking	
☐	Sea kayaking		☐	Scuba diving		☐	Paragliding	
☐	Hot air ballooning		☐	Horseback riding		☐	Sailing	
☐	Other (please write in box)		☐	Other (please write in box)		☐	Other (please write in box)	

8. Please indicate your gender by ticking a box:

☐ Female ☐ Male

9. Please indicate your age by ticking a box:

under 11	11-20	21-30	31-40	41-50	51-60	over 61

10. Please indicate your occupation by ticking a box:

Executive/manager	
Farmer/grazier	
Teacher/lecturer	
Other professional	
Technical	
Skilled tradesperson	
Clerical	
Sales/personal service	
Driver/plant/machinery operator	
Laborer	
Student	
Home duties	
Independent means/retired	
Unemployed	

11. What is your country of residence?

Australia	
USA	
Canada	
UK & Ireland	
Germany	
Scandinavia	
Switzerland	
Other Europe	
Japan	
Other Asia	
New Zealand	
Other	

11a. If you reside in Australia, what is your postcode? ☐☐☐☐

12. Please indicate your annual income (tick a box):

☐ Under $20,000	☐ $20,001-$40,000	☐ $40,001-$60,000
☐ $60,001-$80,000	☐ $80,001-$100,000	☐ Over $100,001

13. What kind of insurance cover/s do you have?

Thank you for your time in filling out both sides of this questionnaire.
You will be asked to fill out a shorter questionnaire (part 2) after you have completed your activity.
Thank you for your cooperation.

Thank you for your cooperation.

Part 2

1. Please provide the **same** fictional nick name or indicator that you used in part 1 of this questionnaire so that the two parts can be matched together:

---

2. Please indicate, by ticking the appropriate box, how you feel about each of these statements:

	Totally disagree 1	2	3	Agree 4	5	6	Totally agree 7
I was excited when doing this activity							
I was interested when doing this activity							
I felt alert when doing this activity							
I was scared when doing this activity							
I was distressed when doing this activity							
I had to concentrate when doing this activity							
I felt anxious when doing this activity							
I was bored when doing this activity							
the staff were friendly							
the equipment was in good order							
the staff were competent							
the environment was in a natural state							
I was capable of performing tasks asked of me							
I got scared							
I enjoyed myself							
I was physically challenged							
the weather conditions allowed me to enjoy this activity							
other people in the group did not stop me from enjoying this activity							
wildlife was visible							
I got value for money							
I was unfamiliar with the equipment being used							
I got injured							
the staff understood my level of competence in this particular activity							
the place I visited today was not too crowded							
the risks associated with this activity were unpredictable							
a lot of unexpected things happened							
I had fun							
I learnt new skills							
I don't require any additional insurance than I currently have							
In future I will seek a less risky adventure activity							
In future I will not do this activity again							
In future I will seek a more risky adventure activity							
In future I will do this activity by myself (no guide)							
I would prefer to pay for injury insurance before doing this again							
I would only recommend this tour to people who are fit enough							
I would only recommend this to people who are courageous enough							
I would only recommend this to people who are adventurous enough							
I would only recommend this to those people who are not too old							
I would only recommend this to those people who can afford it							
I would recommend this tour to anybody							

Thank you for your time and patience in helping with this study

Appendix 16 The 400 Insurance Policies Identified by 612 Adventure Tourists

Standard holiday	I don't know	Sickness & Accident	Medical Dental	Travel Insurance
Basic travel insurance	E111	Sickness and accident	Travel Insurance	Standard Domestic
Health insurance	HMO - plenty	5 Million liability	Health Care (BCWA)	Travel Insurance
Credit card travel	Private healt insurance	Life $100,000	Basic medical insurance	Comprehensive
Professional Liability	Comprehensive travel	Medibank Private	Basic medical insurance	Comprehensive and Accident
Life insurance	Backpackers - UK	Travel insurance	Medical	Action Adventure
Trailfinders - travel	Backpackers - UK	Medical/Travel	Standard holiday	Health Insurance
Trailfinders - travel	Fully comp backpackers	Health insurance	Travel Insurance	Homeowners insurance
Travel insurance	Personal	Health, life, etc.	Life and accidental	Backpackers cover
Fully comp.	General holiday ins.	Only equipment	Life Insurance & Private	Backpackers insurance
Fully comp.	Annual multi-trip	Tricare	Travellers Insurance	Medibank Private
Basic	All cover	Tricare	Healthcare	Medicare
Travel	Backpacker - Downunder	12 months continuous	Blue Cross	Medicare
Full medical	Medibank Private	Travel insurance	Standard holiday	Annual fully comp in
Death	Holiday Insurance	Travel insurance	Holiday	Travel (adventure accident)
Full travel insurance	Life Medical	The world	Full	Basic travel insurance
Travel insurance	Life Medical	Don't know	Travel 12 months	Basic travel insurance
Travel insurance	Life Medical	US HMO coverage	Standard, min-cover	Private health
Travel insurance	Travel insurance	Full holiday cover	Full life	Medical Private insurance
Travel insurance	Travel insurance	Health cover	Hazardous Pursuits	Full travel insurance
Dental/ancillary	Travel insurance	Comprehensive holiday	VHI Global Cover	Full travel insurance
Fully comp.	Travel insurance	Comprehensive holiday	Car Insurance	Travel insurance
Columbus - fully comp	Travel insurance	Life, car	AM Holiday	Blue Shield
Holiday insurance	Own Personal	Full domestic	MBA Medicare	Standard
Cheap shit	Via Employer	Full comprehensive	Cheap	Standard
British Medical Ass	Personal Health Insurance	Life, car	Blue Cross	Full travel/health
Health, Blue Cross	Life Assurance	Life and car	Travel insurance	Full annual travel
Health, life	Cheap Travel Backpacker	Full holiday cover	Standard holiday	Ambulance
Health insurance	Bank in UK	Health cover AXA	DK	Personal insurance
Travel insurance	AXA/Thomas Cook	Health cover	Don't know, MBF I think	Worldwide
Travel insurance	AXA/Thomas Cook	Travel Insurance	Healthcare	Travel insurance
Superannuation, deat	HBA	Superannuation, work	NIB Bodyguard	Health - major medical
As little as possible	Holiday Insurance	Life	Kaiser	Personal accident
Worldwide backpacker	Annual and high risk	Home and contents	Family	HBA Health Insurance
Annual multi-trip	All cover travel ins	Visa gold	State Farm	Life, medical
Medicare	Not sure	Full travel (Visa Gold)	Dangerous activity	Comprehensive
Travel, Holiday, Life	Annual multi trip	Private health cover	Health Partners	Full medical
Death & disability,	Full medical	Part of home insurance	Travel standard	Private health
Worldwide Travel	Full holiday insurance	Comprehensive	Holiday	Life Insurance
Annual Travle Insurance	Full holiday insurance	Travel all year	Holiday	Medical, dental
1 Month Travel insurance	Qantas travel insurance	Unsure	Travel insurance inc	Basic travel
Travel, Life	Travel insurance	Gap year travel	Travel and Scuba	Health, medical, acc
Travel	Travel insurance	General medical	Travel including scu	Comprehensive travel
Backpackers Holidsat	Life & Travel	Death	Travel insurance	Full medical insurance
American Express	Fully comprehensive	Accidental Death	None that covers bungy	Medical
Unlimited	Fully comprehensive	ML	Private health insurance	Medical
Private Health Insurance	Mercantile Mutual	Health and travel	Private health insurance	Total medical, disability
NRMA	Personal injury	Ambulance	Life and personal	Medicare
Life and home owners	Travelling	Life	Full medical	Military
Member of defence force	Full medical, dental	Umbrealla home travel	Car insurance	Health
Not enough	Hazard	Trauma life	Columbus UK action	USA Medical Life
Travel Insurance	Hazardous activity	General holiday insurance	Health Insurance/Med	Travel
Credit card travel	Dangerous activities	Life insurance	Health	Backpackers
Life and Health	VHI (Health) & Bank	PPP Private Medical	Comprehensive	Backpackers insurance
Upgraded	Holiday insurance	Medical insurance	Comprehensive Travel	Medical cover
Gold Credit Card Travel	Blue Cross	Gap year travel insurance	Accidental Death	Health medical
Travel	Comprehensive	Worldwide travel medical	Accidental Death	Medical insurance
Gold Credit Card Travel	Travel insurance	Property, life, super	Fully Comprehensive	Blue Cross/ Blue Shield
Worldwide travel ins	Worldwide travel ins	Comprehensive	Full	Adventure travel
don't know	Worldwide travel insurance	Comprehensive	Health	Public hospital (private)
VHI	Complete travel insurance	Life, Medical	Holiday Insurance	Health insurance
Travel	Qantas insurance	Whole cover	Some kind of insurance	Work accident HBF
Tandard Travel Insurance	Qantas insurance	Private health. PAD	Holiday insurance	Health life insuranc
Worldwide insurance	Complete travel	My dads	Holiday insurance	B.U.P.A. Holiday ins
Qantas tarvel insurance	Life insurance	None. Private health	Columbus Travel & Accident	Yearly includes bagage
Annual travel insurance	Income protection	Private health insurance	Columbus	Travel and winter sports
Annual travel insurance	Medical	Medibank Private	Cigna international	Travel and sports
Standard Travel insurance	USAF	Backpackers	Adventurous activities	Medical insurance
Travel and personal	Fully comprehensive	Travel agents insurance	World-wide Adventure	
Travel and personal	General travel insurance	Private health	Holiday	
Unsure!	Medical disability	Holiday insurance	Private health	
Own personal belonging	Holiday insurance	Full tarvel insurance	Travel and health	
Private health	Full health insurance	Full travel insurance	Medical	
Health	Basic holiday cover	Life Policy	Travel insurance	
VHI	Basic holiday cover	Travel	Currently fully comp	
Holidat, life and accident	Accident, health, life	Basic travel	Travel - fully comp.	
Holiday, life and accident	Holiday	Holiday Cover	Travel insurance	
Holiday and Life	Approx $350,000	Full comp	STA Premium travel	
NFU Holiday Insurance	Travel insurance	Travel insurance	Comprehensive life	
Annual travel insurance	Medical disability	Comprehensive	Full coverage	
Annual travel insurance	Critical illness	Basic travel	Gold "going places"	
Minimal	Travel insurance	Full	Gold "going places"	
AFTA	Travel insurance	Comprehensive	Medical, dental, life	

Appendix 17 Activities Identified as Being Done by Participants in the Past

Jet Skiing	4WD	River caving
Jetboating	4x4 driving	River kayaking
Kayaking	Abseiling	Run across land
Kloofing	Adventure	Scree running
M/Cycle	ATV	Skiing
Microglide	Boating	Skurfing
Motocross	Body Surfing	Skydiving
Motor bike	Boogie board	Snow Shoeing
Motorcycle	Bungy	Snow skiing
Mountain biking	Bush scramble	Snowboard
Mountain climbing	Canoeing	Solo Paraglide
MTB	Canyoning	Soloskydive
Off road driving	Cave rafting	Spear fishing
Outrigging	Caving	Speed boating
Parachuting	Cycling	Spelunking
Parasailing	Dirt bike	Surfing
Parascent	Downhill riding	Water skiing
Pot Holing	Gliding	Whitewater canoeing
Power board	Go Karting	Whitewater swimming
Rally Driving	Hang Gliding	Windsurfing
Rapelling	Helicopter skiing	