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ACCIDENTS IN THE ADVENTURE TOURISM INDUSTRY: CAUSES, CONSEQUENCES, AND CRISIS MANAGEMENT

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INTRODUCTION

This chapter examines the nature, scope and consequences of accidents in the adventure tourism industry, with a focus on Australia and New Zealand. Following a behavioural explanation for the rapid growth of this industry, the elements that constitute an adventure tourism activity (the tourist, the operator, and the setting) are critically appraised for their contributions towards both client risk and safety. Specific adventure tourism crises are then reviewed and management recommendations outlined.

THE RISKY NATURE OF ADVENTURE TOURISM

Advancements in medical science, education and technology have resulted in a far safer society for most people. However, the rapid growth of the adventure tourism industry over the last three decades stands as an apparent contradiction to the trend of minimizing societal risks. In providing an explanation to this paradox, consider for a moment the attractiveness of an adventure activity where the risks and hazards were removed. The thrill and excitement of scuba diving in a small wading pool compared to the depths of Great Barrier Reef are worlds apart. Minimise the elements of risk, and so too are the elements minimised that attract a person to adventure tourism activities. Although people typically seek safety and assurance in their daily activities, some also deliberately seek-out adventurous activities where the real risk of sustaining actual physical injury are recognised (Morgan, Moore and Mansell, 2000). The challenge for adventure tourism providers is to manage these risk elements to avoid crises, while at the same time ensuring customer satisfaction.

Commercial adventure operators understand that many clients are attracted to their activity through its capacity to generate thrills and excitement. These elements arise through the uncertainty created in the minds of participants by an activity's inbuilt challenges. These challenges are in turn inextricably linked to an activity's inherent risks. To provide an appropriate experience for adventure tourism participants, these inherent risks must be *delivered* to the customer at an optimum level. With too little risk, the customer can find the experience dull and boring; too much risk and the operator may confront a crisis.

The Interlaken canyoning disaster in Switzerland was one such a crisis. On the 27th of July 1999, a group of 44 adventure tourists and 8 guides were abseiling and body-rafting down a 400 metre stretch of rapids and waterfalls (Le Quesne, 1999). Heavy rainfall caused the banks of an upstream creek to falter, releasing "a 6 m high wall of mud brown water" down the watercourse (Le Quesne, 1999). The ill-fated result was the death of 21 people. Clearly, the risks associated with this incident were beyond the capabilities of participants. Importantly, newspapers reports of the Interlaken tragedy speculated that early warning signs of danger had been ignored by the activity's guides (e.g., Mann, 1999). Expert opinions of experienced river guides were also reported. These reports expressed serious concerns that the Interlaken river guides employed by the adventure company may have been under pressure to put profits before safety, this being compounded by their lack adequate knowledge of local conditions (e.g., Nicholson, 1999).

RISK PERSPECTIVES

Examining adventure tourism risk requires consideration of both the operator and clients' perspectives. The crucial type of risk to be managed in the adventure operator concerns the likelihood of clients sustaining physical injuries. The nature of these injuries range from a minor scratch or bruise to those serious enough to result in death. From the commercial adventure operator's perspective, this type of risk may be referred to as *real risk*.

Empirical research examining adventure tourism activities has demonstrated that participants are seeking an adventure where the operator manages physical risks at appropriate levels. Unsurprisingly, self-report surveys from clients indicate that operator safety standards are the most important feature of an adventure activity (e.g., Hall and McArthur, 1994; Morgan, 1998). To ensure that participants (many of whom will be novices in the activity) engage in an appropriately safe adventure, operators of adventure tourism require a range of specialized knowledge including awareness of the potential dangers posed by physical hazards inherent to the activity.

For example, in an unfamiliar area neither the novice nor the experienced sea-kayaker will be aware of changes to conditions associated with tidal ebbs and flows (i.e., currents and wave action). However, a guide with local experience will determine the route and timing of a sea-kayaking adventure by planning for these changes; this planning thereby minimises the real risk in the activity. In doing this, the adventure participants may not even be aware of the potential risks and the method of their management.

Interestingly, a lack of awareness of the true potential risk in an adventure activity results in participants holding very different risk perceptions compared to guides and operators. For adventure clients, their *perceived risk* becomes the defining feature of the adventure experience. Clients' perceived risks can take many forms; these include the likelihood of physical injury, the possibility of not receiving value for money's through a boring activity, or the advent of psychological distresses or social embarrassment. Moreover, clients' perceived risks are inextricably linked with their fears, awareness of dangers, anxiousness and personal control emanating from the trip (Morgan, in press).

As highlighted in the introduction of this chapter, it is the uncertainty created through the inherently risky nature of adventure tourism is what makes these types of activities so exciting to most participants. Given this risky nature, it is not surprising that a number of recent incidents have resulted in both injuries and deaths to clients participating in adventure tourism activities. These incidents have occurred in a range of commercial adventure tourism operations including caving, rafting, scuba diving, and canyoning and across many settings throughout the world. For example, in Australia approximately one in every 120,000 scuba dives result in a fatality whereas in Japan 6.5 fatalities occur for every 100,000 dives (Wilks and Davis, 2000:592). What these statistics highlight is the important role played by risk and crisis management in the adventure tourism industry for injury and mortality prevention.

ADVENTURE TOURISM VERSUS ADVENTURE TRAVEL

Before proceeding further, a distinction should be made between commercial adventure tourism activities and the more general concept of adventure travel. Where adventure travel is primarily an ongoing and self-organised experience, an example being a person hiking through a national park, adventure tourism is a time-limited activity facilitated by a commercial operator primarily for the purpose of gaining financial profit. Although *adventure travellers* can participate in commercial adventure tourism activities as part of their ongoing travel experiences, the management of the commercial situation is the central concern of this chapter. This distinction is made because when the adventure tourists pay money for the specialised skills, knowledge, and equipment of the service provider, they reduce their need for risk awareness and responsibility. This transfer of risk responsibility to an activity operator arising from the tourist's financial consideration raises a number of legal and ethical issues. In contrast, the risk adopted or transferred by a self-organised adventure traveller or independent recreationist is not undertaken as part of a financial (and contractual) transaction.

Outdoor adventure travel is gaining in popularity (McIntosh, Goeldner and Ritchie, 1995:151). Newspapers reports claim adventure tourism to be the fastest growing segment of the tourist market, worth somewhere between $50 million and $500 million just in Australia (Elias, 1999). New suppliers of commercial adventure products will continue to enter the market to meet this growing demand. To begin operating, the company will often have to meet government requirements including those relating to guide qualifications, operating regulations, and sight permit (Cloutier, 1998:32).

Hall (1992:145) lists examples of adventure activities including white-water rafting, sea-kayaking, horse riding, mountain biking and rock climbing. Clearly some, if not all, of these adventure activities can be undertaken on either a commercial or on a self-organised basis. However, causes, consequences and management practices discussed in this chapter refer to the operations of commercial adventure service providers. With this in mind, the following working definition has been adapted from Hall's, where the term "often commercialised" used in his definition has been replaced with the term "intrinsically commercialised".

> Adventure tourism represents a broad spectrum of outdoor touristic activities, intrinsically commercialised and involving an 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 management of the tourists' experience."

The unique characteristic of adventure tourism in comparison to other forms of tourism such as ecotourism, cultural tourism or resort tourism, is that the participants are deliberately seeking and/or accepting the chance of sustaining physical injury. This feature makes adventure tourism stand apart from other forms of recreational tourism.

The nature of the adventure, as suggested in Hall's (1992) definition, is determined in combination by the participant, the activity operator, and the activity setting. Each of these elements can be a potential contributor to crisis situations. The result of poorly managed or unexpected crises could range from a negative psychological experience for the client caused by mishap induced fear or embarrassment, or worse, an accident resulting in physical injury or death. Each of the three elements will now be discussed.

THE ADVENTURE TOURISM PARTICIPANT

Firstly, the *participant* brings a range of previous experience and expectations to the adventure. In the case of relatively experienced or competent clients, adventure operators can provide the client with more scope and responsibility in dealing with the inherent risks. This gives the client greater control over the adventure and presumably a more satisfying experience. For example, consider a client who has been whitewater rafting on a particular river with the same operator on 3 or 4 previous occasions. This client they may not require the same amount of guidance in relation to how tasks such as *holding on*, *back paddling* or *assuming the whitewater floating position* are performed. Further, allowing skilled participants more involvement in the activity enhances the amount of perceived risk without necessarily compromising client safety.

In contrast, novice clients will hold only vague expectations of what might be involved. Novice white water rafting participants may not even expect to have to put in any effort apart from merely holding on. Typically, commercial rafting customers will receive a safety talk as a whole group, followed by a paddling skills talk from their individual rafting guide while in the raft and before launching. These talks are pitched at novice paddlers where the guide will assume minimal prior knowledge. Ideally, the rafting guide would aim to be able to guide the raft down a river with a minimum of reliance on the crew; however, often precise and coordinated paddling is required from all members in the raft to avoid hazardous circumstances. A capsize on a particularly hazardous rapid might create strong psychological distress within a client (and this condition can also contribute to potential physical danger). Therefore, adventure operators should, where possible, take into account previous client history when facilitating an appropriate adventure experiences and, further, hold an understanding of how their clients might perceive the risks in the activity.

A range of factors can influence clients' risk perceptions during adventure tourism activities. These include previous experience in the situation, personality, age, gender and culture (Kasperson and Dow, 1993). Leisure research into risk assessment has indicated that physical risk (danger of physical injury) and psychological risk (including fears of failure and frustration from an unsatisfactory experience) best predict the overall perceptions of risk in recreation activities (Brannan, Condello, Stuckum, Vissers and Priest, 1992; Cheron and Ritchie, 1982).

Other psychological and sociological influences illustrate the complexity of individual risk perceptions. For example, individuals tend to hold unrealistic optimism about their vulnerability to risks (Stapel and Velthuijsen, 1996). Middleton, Harris and Surman's (1996) found this to be the case for bungy-jumpers where they perceive their own risk of injury to be less than that of the typical bungy-jumper. Voluntary participation in activities also results in participants perceiving lower risks (Krimsky, 1992). Furthermore, even when individuals are aware of negative outcomes in an activity (e.g., a previous accidents in the activity), they often attribute it to a rare occurrence or a characteristic of the individual involved in the event (Walster, 1966). For instance, in the activity of high risk skydiving, participants attribute fatal crashes to the victims not having the "right stuff" necessary for the activity (Lyng, 1990: 859).

Participants' level of control, mood, personality and group dynamics also influences risk perceptions. For example, Pitz (1992) cites research indicating that the difference in perceived risk in automobile driving and flying is due directly to one's perceived control of the event. In terms of mood, a happy individual is likely to underestimate the chances of a negative event while an unhappy person is likely to overestimate the chances of such an event (Salovey and Birnbaum, 1989). Wildavsky and Dake (1990) have shown that an enduring personality trait influences whether individuals perceive events as of high or low risk. Additionally, individuals may perceive relatively lower risk in a group situation than if they were alone. This *risky-shift* phenomenon can lead individuals to abandon responsibility to another in the group, or to be influenced by bolder group members (Haddock, 1993; Noe et al., 1983).

In summary, individuals often tend to perceive less risk in behaviour that is voluntary, under personal control or undertaken as part of a group. Adventure tourists typically undertake activities voluntarily and as part of a group. The level of a participant's personal control in the activity will, however, vary between individuals and activities. If individuals' perceptions of the risk in a desired adventure tourism activity indicate that it is acceptable, they will be likely to do the activity. Where these perceptions of risk are flawed, biased, or if critical information is absent, the individual may encounter risks in the activity that was unexpected.

To further investigate the factors that lead to a participant's adventure tourism experience, it is important to understand what motivates individuals to deliberately participate in risk taking activities. Understanding the motivations of deliberate risk taking will also aid in explaining how the pursuit of positive benefits derived from risky activities can, in some cases, lead to undesired consequences.

Motivations for participant to deliberately take risks

According to Jones and Ellis (1996), previous attempts to explain participation in high-risk activities have been descriptive rather than explanatory. In an explanatory study of risk taking behaviour, these researchers hypothesize that the secretion of an "opiate-like" □-endorphine as a neurophysiological response to perceived risk acts as a positive reinforcement in risk recreation activities. This biological response gives the participant pleasure and a desire to repeat the experience; this desire presumably being stronger given higher perceptions of risk.

Although the role of arousal and emotion has been a long-standing source of debate in psychology, researchers generally accept that efficient performance and positive affect occur at an intermediate level of arousal (Zuckerman, 1991). Individuals moving beyond the optimal point of arousal will experience feelings of anxiety. Activities that have the potential to elicit extremely high arousal levels and associated anxiety (e.g., bungy jumping) can produce pleasure through the subsequent reduction of the high arousal levels (Berlyne, 1971).

Individuals also might seek pleasure through increasing their levels of arousal up to some optimum level. For example, tourists might seek out an interesting activity, such as a boat cruise. This cruise would at times raise passengers' arousal levels through offering spectacular views of natural scenery and wildlife. Berlyne (1971:82) summarises this pleasurable process in stating "... such a moderate arousal increment is followed within a few seconds by a drop towards the initial level of arousal, but the rise is what produces the hedonic effect".

However, while arousal may be a sufficient motivation to participants in novel activities, this concept does not account for why individuals continue in those activities after the novelty has worn off (Ellis, 1973). To explain fully deliberate risk taking behaviour it is necessary to examine other psychological and social approaches (Jones and Ellis, 1996). One explanation, related to the concept of arousal, is that participants engage in risk taking behaviour (e.g., adventure activities) to gain a sense of control through positive reinforcement of self-efficacy beliefs. Participants' self-efficacy perceptions act to facilitate effort and subsequent acquisition of competence in challenging activities (Bandura, 1977; Iso-Ahola, LaVerde and Graefe, 1988; White, 1959).

The role of self-efficacy in adventure tourism

Bandura's (1977) theory of self-efficacy provides a cognitive-based explanation of participant's motivational processes when undertaking challenging activities. In Bandura's theory, a participant's desire to match a self-prescribed standard in performance with their actual performance is the basis of their motivation. Attainment of this standard leads to psychological rewards. According to Bandura (1997:193), "both the anticipated satisfactions of desired accomplishments and the negative appraisal of insufficient performance thus provide incentives for action". When participants' attain the performance level sought, they then set higher standards to attain new rewards. However, "people fear and tend to avoid threatening situations they believe exceed their coping skills" (Bandura, 1977:194).

Self-efficacy expectations are based on information gained through performance accomplishments, vicarious experiences, verbal persuasion, and emotional arousal (Bandura, 1977). These findings have implications for the methods by which operators of adventure tourism activities provide information to participants. For example, operators have the scope to adjust tourists' self-efficacy levels through advertising and instruction before and during the activity. Similarly, instructors will have some control over the amount of perceived risk to which participants are exposed.

THE ADVENTURE TOURISM OPERATOR

The second element determining the nature of a client's adventure is the activity operator. Typically, individual clients will implicitly base their subjective judgments of risk on the *expert* assessment made by operators. Effectively, clients shift responsibility for risk management to those in charge of the activity. To provide an appropriate level of adventure, operators should be able to judge and manipulate clients risk perceptions before and during the activity.

To provide an appropriate experience, it is important for guides to understand clients' motives for doing the activity. Interestingly, Fluker and Turner (2000) have demonstrated that guide's can judge with reasonable accurately the importance of a wide range participant-motives (based on global assessments). However, this study found that guides misjudged the underlying motives held by participants labeled by the authors as 'Adventurists' and to a lesser extent, those labeled 'Riskers'. Moreover, it was found that the 'Riskers' did not have a satisfactory adventure experience. This suggests the importance for guides to understand and assess the full range of client-motivations in addition to other factors influential to customer satisfaction.

Facilitating client understanding and activity management requires operators and guides trained in both hard and soft skills. Hard skills refer to those areas in which a guide requires technical competence. This might include, for example, skills in craft control, rescue, first aid training, navigation and use of specialised equipment. These skills are relatively easy to measure directly or may become assumed to be acquired competencies through a designated level of experience (e.g., 150 trips on a specified river). Guides will use these technical skills to provide their clients with suitable training and equipment for the adventure. The activity managers should also have risk management plans in place to cope with potentially risky events.

Soft skills refer to interpersonal qualities used by the guide to manage customers' experiences during the adventure activity. These skills are important to control clients' moods and anxieties where little time for training is possible. To be adept, guides must be able to read their clients moods and based on this information, engage in appropriate communication strategies. This will include using clients' name, giving

them confidence through positive feedback, and routinely checking how they are *feeling* during their adventure.

THE ADVENTURE TOURISM SETTING

The adventure tourism setting, whether it is an inland river, the open ocean or a rugged mountain range, undergoes constant change. Often, adventure tourists will only be able to gain access to these natural settings through the operator's expertise and supply of equipment. In facilitating the adventure, adventure tourism operators must be aware of specific hazards in the setting and how changes in conditions can exacerbate these hazards. Failure of operators to regard the dynamics of the environment presents one area where the best hazard minimisation systems can fail. This situation can occur through operators taking a *mindless* approach to the examination of environmental hazards.

For Langer (1989), mindlessness is a state of consciousness where individuals process information using existing categories derived from past experience. The notion of mindlessness may have serious implications for adventure tourism operators given that this condition, as Langer contends, is often caused through repetition of behaviour. Adventure tourism instructors often deal with high volumes of people. This can result in mindlessly categorising participants. As one consequence, participants who perceive risk as greater than the average or whose competency is below the average could become subject to risk exceeding their capacity for control. Similarly, guides can mindlessly categorise environmental hazards based on their past experiences. For example, white-water rafting guides may not be aware of increased risk posed by a river that is rarely in flood. In these circumstances, following the usual course might not be the safest as a result of the changed conditions.

LEGAL CONSIDERATIONS

Where accidents result in damages claims, the legal system will typically attempt to apportion blame to those found responsible and award compensation to those parties suffering loss or injury. These cases can often revolve around a breach of duty of care where the risk should have been reasonably foreseeable (Wilks and Davis, 2000). Johnston (1989) presents an alternative view in her study of New Zealand mountain activities. Here she argues that accidents are part of the experience. Where accidents do occur in the mountains, blame tends to focus on the individual involved "...for not taking appropriate care in their activities" (Johnston, 1989: 278). Johnston argues that this view, where held by society and participants, counteracts the desire for regulations and restrictions in these adventure activities; this shifts the safety emphasis to education and training at the individual level.

Concordant with this stance, remedial legal action is often only taken following a crisis event causing serious injury or death. Following spates of these kinds of incidents, many countries are now implementing voluntary safety codes of practice in their adventure tourism industries. These safety codes typically encompass key legal, environmental, safety and customer service principles. Further, the adventure tourism industry is usually subject to legal restrictions; for instance the requirements under common law, trade practice and health and safety legislation, or government licensing requirements.

Specific legislation that requires standards of operation will work to determine the minimum standards of entry for operators into the adventure tourism industry. However, in less regulated activities market forces are left to drive the supply side, based in part on adventure tourists' knowledge of a company's previous accident history. This may be a risky strategy for the industry as a whole given that some operators will run activities below acceptable standards of safety in order to undercut the opposition. Subsequent accidents may damage more than just the reputation of this individual operator.

The intangible nature of a tourism experience compounds the unsafe practices of operators. This intangibility leads consumers to place a heavy emphasis on promotional material to form expectations about an activity (Roehl and Fesenmaier, 1992; Schreyer, Lime and Williams, 1984). Even though an individual

operator is associated with a number of accidents, the diverse source markets may not allow efficient communication of this information to individual tourists.

ADVENTURE TOURISM INJURY RATES

There are a number of difficulties in determining specific injury rates in adventure tourism activities. Firstly, not all injuries are severe enough to require medical treatment. Even where an injury is treated at a local surgery or in a hospital, records may not provide specific information regarding the circumstances of injury (e.g., whether the injury occurred during a commercial adventure activity) or the person (e.g., whether the victim was a short stay tourist or a permanent resident). Nevertheless, attempts have been made to assess tourist injury rates for motorised transport (e.g., Wilks, Watson, and Faulks, 1999), drowning (Mackie, 1999) and scuba diving (see Wilks and Davis, 2000). A number of other studies of injury epidemiology in adventure tourism are currently under way. Though limited, the research has demonstrates that injury rates for tourists are typically higher than for the local population (e.g., Carey and Aitken, 1996). Risk factors include the unfamiliar nature of the activities undertaken (Wilks and Atherton, 1994) and errors of judgement made by the employees of operators (e.g., Maritime Safety Authority, 1994). The extent and cost of injury across the context of all adventure tourism activities remains an important area for future investigation.

ADVENTURE TOURISM INCIDENTS

Compromises to tourist safety during adventurous commercial activities can occur through a range of circumstances involving the person, the operator and the setting. To examine some of the potential circumstances, reports of five independent incidents resulting in injuries or deaths to adventure tourists are reviewed here (Maritime Safety Authority, 1994, 1995a, 1995b, 1995c, 1995d). These incidents, with key findings summarised in Table 2, occurred during white-water rafting trips on New Zealand's Shotover River from November 1994 to November 1995.

Table 2: Maritime Safety Authority Accident Report and Investigation Summary for Rafting Incidence on the Shotover River (from November 1984 to 1985).

Case Incident	Type of accident	Consequence	Determination of cause
1	Capsize	1 Fatality	Human factor: Negligence/Misconduct
2	Capsize	1 Serious injury	Human factor: Physiological plus Negligence/Misconduct
3	Capsize	3 Serious injuries	Human factor: Error of judgment Environmental factor: Adverse current
4	Capsize	1 Fatality	Environmental factor: Submerged object
5	Capsize	1 Fatality	Human factor: Other

All five incidents involved rafts capsize and were subsequently categorised by the Maritime Safety Authority as "accidents." These reports classify incident cause under three general categories; human factor, environmental factor, and technical factor. A number of issues arise from these reports. First, crisis in this type of adventure activity will often involve raft capsizes. Participants in this situation can find themselves submerged in very cold water for varying periods of time. Once in the river, participants can be washed downstream, caught in rapids or worse still, become wedged under submerged rocks or branches. In case 3,

and following raft capsize, two victims sustained head injuries following contact with submerged rocks with a third suffering respiratory arrest.

The reports indicate that these natural environmental hazards cannot always be foreseen. For example, the nature of a river and its inherent environmental hazards can change very rapidly with changes in river flow. Further, the timing between the onset of a conditions (e.g., prevailing wind, snow melt) and changes to river flow cannot always be accurately predicted, even for experienced operators. In case 1, a raft capsize on a rising river resulted in one passenger being washed far downstream; the victim had died by the time the body was retrieved. In case 2, although the river flow was low, the victim became wedged underwater between rocks and held there through the water pressure. Similarly, in case 4 the victim became wedged around a tree after being washed down a rapid that was typically avoided where possible by rafting crews. This tree hazard was likely to have been stopped in the rapid in only the last few weeks before the accident.

Further, operators must make judgments as to the suitability of their clients to undertake potential exposures to hazardous conditions. The difficulty here is that companies must rely on self-reports from individual tourist of their own health status and water competency. In case 5, a tourist from Thailand was emerged in the river for around three minutes. Despite the use of wetsuits, a stated contributing factor was that the victim was not a "confident swimmer" and "did not have a clear concept of what might happen if he fell into the river" (Maritime Safety Authority, 1995d: 5).

These five cases by no means cover the breadth and type of incidents that can occur in adventure tourism operations, as each particular operation will have its own unique environmental hazards. Further, neither guide nor client experience in one activity or location can necessarily be relocated to another adventure site or type of activity. Nonetheless, these cases provide a guide for recommendations to the industry that aim to maximise client safety and preparedness for upcoming adventures.

MANAGEMENT PRACTICES IN ADVENTURE TOURISM

The possibility of physical injury and even death is an inherent part of the adventure tourism industry. These incidents can have a strong bearing on how clients, both existing and prospective, perceive the risks associated with individual adventure activities as well as the wider adventure tourism industry. A paradox here is that these accidents can add to the allure of the adventure experience through providing a valid testimony of the risk. For example, some clients may regard white-water rafting accidents as confirmation of their belief that the activity is inherently dangerous. Although meeting the challenge in the face of unpleasant arousal has been suggested as the critical underlying factor in peak adventure experiences (e.g., Mitchell, 1983), safety remains the primary concern for the majority of adventure participants. Of course, deaths and physical injury caused to customers or guides is not an outcome wished by anyone and prevention of these crises should be the overriding concern for activity operators.

Morgan (2000) has recently outlined a strategy aimed at developing of standards for the adventure tourism industry based on objective safety criteria; these criteria would specify hazards pertaining to particular classes of activities. This industry-based and regulated strategy seeks to minimise risk through matching participants and operators to specific settings. Initially, settings are given a standardised 'difficulty' rating (e.g., levels one through to level five) according to identifiable hazards (current and potential). These rating levels can be based on existing classification systems (such as the international system rating the difficulty of white-water rapids on a scale from one to six). To obtain employment, industry guides and instructors would require industry accreditation based on an objective assessment of hard and soft skills at each level in addition to experience in specific settings over a range of conditions.

It is envisaged that this system would act as both a marketing and interpretation framework for tourists. Information on the rating levels could be made available at visitor centres and backpacker hostels. Tourists would be able to view videos for specific levels and through narratives listen to the experiences of others. This would allow both novice and experienced adventure tourists to identify and choose appropriate adventures available from across regions or nations; this process would act to group clients of similar competencies, expectations, and desires. Similar to current diving practices, higher difficulty levels might

require participants with proven competencies and medical clearances. Adventure tourists would be rewarded with industry-based certificates of achievement promoting repeat business as they seek-out evermore-difficult adventures. Such a system will also encourage less intrepid tourists, who may otherwise not do an adventure activity, to engage adventures characterised through minimal difficulty.

Although this system would require agreement and coordination among operators, the benefits would include greater tourist participation and a better match of clients to their desired adventure experiences. Most importantly, the safety of adventure tourism operations would be expected to increase across the board where tourists demand activities with accreditation (and with endorsed support in the publications of national tourist promotion bodies). Given this, those operators acting outside of the industry guidelines would not be recognised by the accreditations system and in time either meet the necessary standards or suffer reduced demand for their product.

Even if this system was successfully implemented, it is difficult to imagine that all crises in adventure tourism can be prevented. Augustine (2000) suggests that crisis management should be addressed in six stages; avoiding the crisis, preparing to manage the crisis, recognising the crisis, containing the crisis, resolving the crisis, and profiting from the crisis. In essence, this model describes a methodical approach to controlling crises with an emphasis on initial avoidance. Although crisis avoidance is "the least costly and simplest way to control a potential crisis" (Augustine, 2000:8), where they do occur, the next five steps in crisis management will have an overall aim to minimise all ensuing negative impacts.

For stage 2, preparing to manage the crisis requires operators to adopt the mindset that renders crises as inevitable aspects of adventure operations. This view demands that plans and strategies are developed to address crises. Presumably, most adventure tourism operators across the industry would have these kinds of strategies in place for the management of foreseeable events. These strategies can include regular crises simulations, worst-case scenario communication, protecting and directing endangered clients, headcounts, coordination with emergency response agencies, rescue techniques, establishment of employee's crisis roles, first-aid, transport procedures, standardised reporting procedures, and public relations. Augustine (2000:14) also suggest that crisis management should consider "second order effects". For example, having survived a severe storm, a sea-kayaking party may find themselves without communication. Here, emergency supplies of food and blankets may be critical for life support until search parties can locate them.

Stage 3 involves recognising the crisis. Often, early recognition will only come to those with extensive experience in the activity and in local conditions. As described earlier in the Interlaken tragedy, local townspeople claimed to have identified the approaching crisis; their warnings going unheeded. To provide early crisis warning, objective environmental indicators of potential hazards should be identified where possible. These indicators, for example, may relate to certain weather patterns, river levels, or snow conditions. Where conditions cause indicators to be exceeded, specific actions would be automatically triggered (e.g., cancelling an adventure) removing this decision-responsibility from individual employees.

Containing the crisis (stage 4) is where "tough decisions have to be made and made fast" (Augustine, 2000:20). These situation specific decisions have the overriding aim of preventing death and further injury. The crisis management plan will be invoked and subsequently a company representative should establish links with local authorities and media. The successful crisis resolution (stage 5) will be a result of careful crisis planning and management. The final outcome can also hinge to some extent on luck (whether good or bad) and this element should be recognised in the final stage, profiting from the crisis. This stage involves assessing the chain of events leading to the crisis and determining the success or otherwise of crisis management planning. The *profit* or benefits arising from the crisis surround the communication of the circumstances to the industry so that other operators can effectively avoid or manage similar crisis in the future. Lastly, to avoid financial losses operators should carry adequate insurance for the protection of their clients and themselves (Wilks and Davis, 2000).

The advent of habitual crisis in adventure tourism will engender potential and current consumers of adventure tourism with suspicious attitudes towards the industry. Managing crises in a responsible manner requires that operators show due "concern for its customers and commitment to corporate ethical standards" (Augustine, 2000:28) to regain a degree of confidence and trust. This emphasises the need for objective

standards to be implemented within (and by) the industry with these standards communicated clearly to the adventure tourism public.

CONCLUSION

Adventure tourism activities carry the onus for managers and guides to provide an experience for their clients within an acceptable margin of safety. The physical risks that do exist should be clearly communicated to clients before they commit to the adventure. As this segment of the tourism industry grows in competence and professionalism, clients will be simultaneously seeking new adventure experiences. To meet this demand, a structured management framework will not only improve safety but work to effectively match the tourist demand to industry supply at appropriate safety levels and in suitable locations benefiting both adventure operators and their clients.

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