



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Commerce - Papers (Archive)

Faculty of Business

2004

No risk, no fun: The role of perceived risk in adventure tourism

Tracey Dickson

University of Wollongong, tdickson@uow.edu.au

Sara Dolnicar

University of Wollongong, s.dolnicar@uq.edu.au

Publication Details

This paper was originally published as: Dickson, T & Dolnicar, S, No risk, no fun - the role of perceived risk in adventure tourism, CD Proceedings of the 13th International Research Conference of the Council of Australian University Tourism and Hospitality Education (CAUTHE 2004).

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

No risk, no fun: The role of perceived risk in adventure tourism

Abstract

There is a long tradition in tourism research to investigate the issue of perceived risk. The reason lies in the tourism industry's aim to reduce the risk perceptions among tourist in order to increase sales. Perceived risk is thus seen as a hurdle to attracting tourists and the managerial aim is to reduce it. At the same time there is a sub-sector of tourism industry, adventure tourism that seems to work in precisely the opposite way: perceived risk is something attractive to the potential consumers, something they are actively searching for. The aim of this paper is to investigate past literature on risk in the context of tourism consumer behaviour and to compare operationalisations of perceived risk in this context that have been developed in the past. This paper is a review paper and as such functions as an initial step of an exploratory study to determine factors of demand-increasing perceived risk relevant to define the concept. Based on the review an initial conceptualisation of demand-increasing perceived risk (desired risk) in the area of adventure tourism is provided.

Disciplines

Business | Social and Behavioral Sciences

Publication Details

This paper was originally published as: Dickson, T & Dolnicar, S, No risk, no fun - the role of perceived risk in adventure tourism, CD Proceedings of the 13th International Research Conference of the Council of Australian University Tourism and Hospitality Education (CAUTHE 2004).

No risk, no fun
The role of perceived risk in adventure tourism

Tracey Dickson
Lecturer
School of Management, Marketing & Employment Relations
University of Wollongong
Northfields Avenue
Wollongong, NSW, 2522
Ph: 02 4221 4262
Fax: 02 4227 2785
Email: tdickson@uow.edu.au

Dr Sara Dolnicar
Senior Lecturer
School of Management, Marketing & Employment Relations
University of Wollongong
Northfields Avenue
Wollongong, NSW, 2522
Ph: 02 4221 3862
Fax: 02 4227 2785
Email: sarad@uow.edu.au

**Review as refereed paper presentation: Conceptual/theoretical
paper**

No risk, no fun

The role of perceived risk in adventure tourism

Tracey Dickson & Sara Dolnicar

School of Management, Marketing & Employment Relations

University of Wollongong

Abstract

There is a long tradition in tourism research to investigate the issue of perceived risk. The reason lies in the tourism industry's aim to reduce the risk perceptions among tourist in order to increase sales. Perceived risk is thus seen as a hurdle to attracting tourists and the managerial aim is to reduce it. At the same time there is a sub-sector of tourism industry, adventure tourism that seems to work in precisely the opposite way: perceived risk is something attractive to the potential consumers, something they are actively searching for.

The aim of this paper is to investigate past literature on risk in the context of tourism consumer behaviour and to compare operationalisations of perceived risk in this context that have been developed in the past. This paper is a review paper and as such functions as an initial step of an exploratory study to determine factors of demand-increasing perceived risk relevant to define the concept. Based on the review an initial conceptualisation of demand-increasing perceived risk (desired risk) in the area of adventure tourism is provided.

Introduction

Nobody takes a risk in the expectation that it will fail (Bernstein, 1996)

The concept of risk is central to tourist behaviour. With the intangibility of tourism products which make it impossible to evaluate the product precisely before actual consumption on the one hand, and vacation cost representing a fairly large household expenditure on the other side, risk clearly plays a major role in the decision making process of tourists (Roehl & Fesenmaier, 1992). Usually the aim is to help potential tourists during their decision making process to reduce the risk they perceive to be associated with the purchase.

This paper aims at investigating another perspective of risk in the context of tourism: a perspective where risk is something tourists actually desire rather than avoid. This phenomenon occurs wherever the attractiveness of a tourist activity is associated with high levels of risk, as is the case in all sorts of adventure tourism offers. While this is widely known and used by the adventure tourism industry to promote their products, there has so far been no research into the desires of customers in the adventure tourism market, more precisely into their desired risk levels. Due to this lack of market understanding regarding desired perceived risk levels, the product design in the adventure tourism industry is at present mainly guided by segmenting the market into levels of physical challenge.

The aim of this conceptual paper is (1) to investigate the concepts of risk, which presently exist in the tourism research literature as well as the consumer behaviour literature in general, and (2) to extend the conceptual framework of risk in the area of tourism to account for a positive risk, a risk that is actually desired and actively looked for by tourists.

Adventure Tourism

Adventure, from *ad venio* “whatever comes” (Zweig, 1974) by definition has uncertain outcomes. While this uncertainty may be appealing to the consumer of adventure tourism, the reality today of high public liability insurance premiums and consumers’ awareness of their contractual rights, is that many adventure tourism products have very certain outcomes as the programs and processes are heavily managed to ensure the quality of the product and the safety of the participant. To do otherwise may be to risk the very future of the organisation. However, as Walle (1997) notes, “the absence of risk may decrease the satisfaction the participant receives from a would-be adventure” (Walle, 1997), thus for the adventure tourism operator there may be a balancing act of real, perceived and desired risk.

An adventure may be further defined as the “deliberate seeking of risk and uncertainty of outcome ... only in outdoor adventure pursuits is there a deliberate inclusion of activities that may contain threat to an individual’s health or life” (Ewert, 1989 cited in Walle, 1997). Adventure tourism is a growing subset of the tourism market (Beedie & Hudson, 2003) which seeks activities and programs where there may be a perception that the outcomes are uncertain. Adventure tourism may be defined as “commercially operated activities involving a combination of adventure and excitement pursued in an outdoor environment [and may] incorporate a broad spectrum of activities ranging from high-risk adventure activities (e.g. white water rafting) to low risk ones (e.g. tramping)” (Bentley, Page, & Laird, 2001). Bentley et al. (2001) further report that “high risk activities associated with adventure tourism are not recognised as high risk by participants – in fact they seek risk as part of the experience” (Bentley et al., 2001). The return for this pursuit of risk may be a combination of fear, excitement and thrills (Holyfield, 1999; Palmer, 2002; Walle, 1997) or others may pursue the same experiences for the expected returns of insight, personal growth or a peak experience (Bentley et al., 2001; Hayhurst, 1997; Walle, 1997). Those people attracted to the pre-packaged adventure tourism market often include adventure neophytes who do not have the skills, experience, equipment and/or local knowledge to participate in an independent adventure (Beedie & Hudson, 2003; Palmer, 2002).

While risk may be pursued as part of the adventure ‘package’ the reality of many adventure tourism programs is that there is a high level of planning and risk management that would limit the real level of risk and also the levels of uncertainty. With the significance of the planning it is questionable whether, from the provider’s perspective, it is really an adventure, however from the consumer’s perspective there may still be a perception of adventure.

Risk

The role of risk in daily life has been part of human experience for millennia with people risking their assets via gambling being a regular occurrence. It was not until the Renaissance that efforts were made to calculate risks and probability, until then

the most common risk management strategy for sailors was to genuflect before the mast as it was believed that their fate was in the hands of the gods (Bernstein, 1996). Today there is a much broader understanding of risk.

Absolute, Real and Perceived Risk

The concepts of absolute risk, perceived risk and real risk are referred to frequently in the outdoor and experiential learning literature (Beedie, 1994; Dickson & Tugwell, 2000; Haddock, 1993; Priest & Gass, 1997). Haddock (1993) defines these three values of risk as

Absolute risk: the uppermost limit if the risk inherent in a situation (no safety controls present).

Real risk: the amount of risk which actually exists at a given moment in time (absolute risk adjusted by safety controls).

Perceived risk: an individual's subjective assessment of the real risk present at any time (Haddock, 1993).

In the tourism literature, and particularly the adventure tourism literature, these are not well-explored concepts (Weber, 2001).

When it comes to the measuring of risk, for the purposes of managing the risk, there are various models suggested such as the Risk Analysis and Management System (Haddock, 1993) and Fine's Risk Calculator (Dickson, 2001; Fine, 1971) however each model depends greatly upon the individual judgment of those completing the analysis of the situation. As discussed below, what each individual perceives as a risk may vary greatly. When looking at an individual's perception of risk or risk taking propensity insights may also be gained from psychology (Gilchrist, Povey, Dickinson, & Povey, 1995), decision making sciences (Jia, Dyer, & Butler, 1999) and also traffic accident research (Heino, van der Molen, & Wilde, 1996).

Perceptions of Risk

Perceptions are influenced by the society in which we operate, including aspects such as wealth, demographics, technology and the media (Slovic, 1990). Another aspect that impacts upon perceptions of risk is public outrage, which may further be influenced by over twenty factors such as:

1. the level of voluntary choice to accept or reject the risk
2. the level of control the individual has to prevent or mitigate the risk
3. how 'fair' the level of risk is given the expected benefit
4. the public's perception of the organisation, such as the level of trust or caring
5. the familiarity people have with the activity, such as football versus BASE jumping (Sandman, 1990; Segal & Sandman, 1990).

Perceptions of risk are in the eye of the beholder, that is, they are very individual. If perceptions of risk are individual, then can the same be concluded about why people take risks and how much risk they are willing to take?

Risk Homeostatis: Target risk level

Wilde (1999), drawing on traffic accident research, suggests that "risk homeostasis theory posits that people at any moment of time compare the amount of risk they perceive with their target level of risk and will adjust their behaviour to attempt to

eliminate any discrepancies between the two” (Wilde, 1999). It is further suggested that the target level of risk is a combination of the perceived costs and benefits (financial, personal social etc.) of alternative actions (both risky and safe) where the aim is to maximise the net benefit. What the research on traffic accidents suggests about risk taking behaviour is that those people who are ‘sensation seekers’ have a higher target risk level, and that they perceive the level of risk to be much lower than ‘sensation avoiders’. This lower risk perception is in part due to sensation seekers having a higher level of optimism than sensation avoiders (Heino et al., 1996).

Sensation Seeking

Sensation seeking is a trait “defined by the seeking of varied, novel, complex, and intense situations and experiences, and the willingness to take physical, social and financial risks for the sake of such experiences” (Zuckerman, 1994 cited in Hansen & Breivik, 2001). Research has found that there is a significant difference between the sensation seeking scale of *Thrill and Adventure Seeking* of people involved in adventure travel and those who are not (Gilchrist et al., 1995).

Further research suggests that a particular DNA sequence is a predictor of ‘novelty seeking’ personalities and that this behaviour is affected by the way the brain cells process a neural messenger called dopamine (Anonymous, 1996). Hamer and associates raise the possibility of a genetic predisposition to ‘novelty seeking’ and ‘harm avoidance’ where novelty seeking is “the desire to seek out new experiences or thrills” and harm avoidance “makes people anxious, fearful and shy” (Hamer & Copeland, 1998). Their research with twins indicates that 40% or more of novelty seeking is inheritable, while the gene D4DR accounts for approximately 4% of that 40% (Dickson, Chapman, & Hurrell, 2000). Other research has suggested that there may be a particular personality type (Type-T) which is the risk taker. Risk takers may not be risking lives, but they may be people who have pushed other boundaries such as Einstein and Galileo (Greenfield, 1999). Type-T personalities may also have many negative behaviours such as drug taking, unprotected sex, anti-social and/or destructive behaviours.

In contrast to the research on sensation seeking is some tourism research that has focused on risk avoidance (Sonmez, Apostolopoulos, & Tarlow, 1999; Sonmez & Graefe, 1998). This research, looking at the influence of terrorism upon tourism, emphasises how tourism behaviour is impacted negatively in response to perceptions of increased risk and/or safety concerns. The research also highlights how previous travel experience in those high-risk areas may have a positive impact upon research choices especially when a wide variety of types of risk were explored.

Different People, Different Risks and Flow

Not all risks are physical risks. Risks may be also include social and psychological risks (Weber, 2001). Thus, people who participate in adventure tourism may have very different perceptions of what risks are integral to the trip. For some the risk may be the activity, for others it may be travelling in a group, while for others it may be confronting the challenges of new cultures, languages, foods and monetary systems. Sonmez and Graefe (1998) list ten different types of risk associated with international travel:

1. Equipment/functional: mechanical, equipment and/or organisational problems
2. Financial: experience will not provide value for money

3. Health: possibility of becoming sick
4. Physical: physical danger or injury
5. Political instability: being caught up in political turmoil
6. Psychological: disappointment with the travel experience
7. Satisfaction: not being satisfied with the experience
8. Social: risk of disapproval from others of the destination choice
9. Terrorism: being caught in a terrorist act
10. Time: travel experience was a waste of time

The matching of an individual's skill level to the challenges is explored by Csikszentmihalyi (Csikszentmihalyi, 1990, 1997; Weber, 2001) who suggested that the optimal level of experience is where a person's skill matches the level of risk or challenge. The model further suggests that where the challenges exceed the skills there may be anxiety, while challenges that are lower than the individual's skill level may lead to boredom (Figure 1). What this model does not address is where people are actually seeking experiences where the challenges are greater than their skill, where they are seeking the adventure, the unknown.

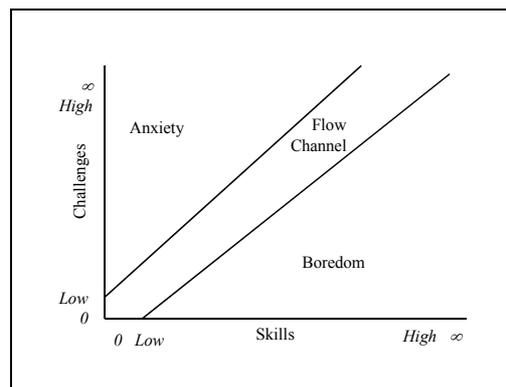


Figure 1 Flow (Csikszentmihalyi, 1990)

Commodification of risk and adventure

Xtreme sports, high adventure and living on-the-edge may all be 'sexy' marketing terms, but underlying them is the packaging of many outdoor pursuits, previously open only to those who have the skills and experience to participate. The year 2003 saw the celebration of 50 years since the ascent of Mt Everest, by Edmund Hillary and Tenzing Norgay on 29th May, 1953. Reflecting upon mountaineering today Hillary said:

We had to meet all the challenges that arose. That's not true largely nowadays. Nowadays most of the people who climb are not experienced but are led up by experienced guides and they are most of the time following in the footsteps of other people. We had to create our own footsteps and overcome problems, so for us it was very special (Harvey, 2003).

Adventure tourism organisations today face the challenge of dealing with a society that promotes 'xtreme' experiences and a market that still wants adventure, but maybe without the risk of death, but still with "the *appearance* of fatefulness, thus obtaining some of the glory with very little of the risk" (Holyfield, 1999). In addition is the

array of consumers who will vary widely on scales of sensation seeking. Yet adventure tourism organisations continue to “tread a careful line between selling adventure as an idea and delivering the same as an experience” (Beedie & Hudson, 2003). Thus adventure tourism operators “routinely package the adventure sports on offer as being entirely without risk ... extreme experiences are actively and aggressively sold to a novice market of travellers as being ‘high thrill, low risk’ adventures” (Palmer, 2002). What the research todate has not explored well is what type and level of risk is actually desired by the consumer, as well as what differences may exist between what the operators may perceive the risks to be compared to the what the consumer may perceive the risks to be.

Initial conceptualisation of ‘desired risk’

If perceived risk is an individual’s subjective assessment of the real risk while the real risk is the amount of risk that actually exists at that moment given the application of safety controls (Haddock, 1993), it is proposed that the concept of desired risk will be either a subset of, or an extension of the individual’s perceived risk. Thus, the desired level of risk of the consumer may be either greater than or less than their perceived risk (Figure 2). Consistent with Wilde’s research (1999) it is further proposed that the interrelationship between the perceived risk and desired risk will not only influence the consumer’s buying behaviour, but may also influence the consumer’s behaviour on the trip if they are seeking greater risk (where desired risk > perceived risk) or if they are seeking less risk (where desired risk < perceived risk). This former aspect will impact upon the marketing strategies adopted while the latter will impact upon the risk management plans implemented before and during the trip. In asking what the desired level of risk may be one must investigate the individual’s subjective perceptions of risk within their adventure tourism trip (Weber, 2001). These perceptions probably do not remain static, and in fact may shift not only between levels of desired risk, but also across categories of risk (e.g. physical, social, psychological). In line with Csikszentmyhali (Csikszentmihalyi, 1990, 1997) this shift may be as a result of a reassessment of one’s skills throughout the duration of the trip.

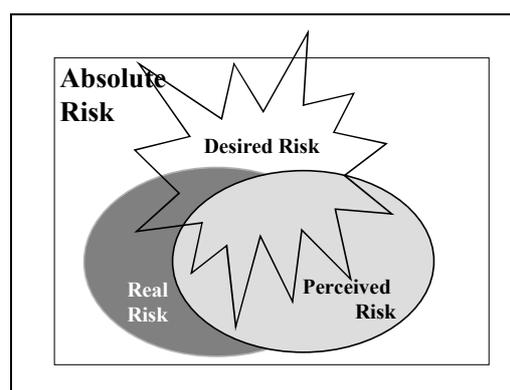


Figure 2 Multiple Concepts of Risk

Conclusions and Implications

The concept of risk in the area of touristic buying behaviour was extended to account for a positive component of perceived risk, which becomes especially relevant in the consumer behaviour setting of the sub-market of adventure tourism. The desired risk

level represents the level of risk perception that is optimal for each single individual. Providing the optimal desired risk level maximises demand for adventure tourism offers, where the optimal desired risk level is assumed to vary from individual to individual. This is only a very initial step towards conceptualising risk that attracts tourist. It seems, however, that this is an area that could make major contributions to understanding a specific sub-market of tourism: adventure tourism. For this reason it would be very interesting to start operationalising desired risk. This would be the first step in future research. Furthermore, the issue of heterogeneity of desired risk levels needs to be investigated, in order to enable suppliers of adventure tourism offers to design and target customised products at adventure tourists with different desired levels of perceived risk. Another area of future research work that would be highly relevant to the adventure tourism market is to investigate common associations of perceived positive and real risk levels regarding various standard adventure sports and develop a perceptual risk map of adventure sports.

Bibliography

- Anonymous. (1996). *'Risk-taking may be in the genes'*, *Detroit News*. Retrieved 20 September, 1999, from the World Wide Web:
<http://detnews.com/menu/stoires/30561.htm>
- Beedie, P. (1994). Risk Taking: The Consensus View. *The Journal of Adventure Education and Outdoor Leadership*, 11(2), 13-17.
- Beedie, P., & Hudson, S. (2003). Emergence of mountain-based adventure tourism. *Annals of Tourism Research*, 30(3), 625-643.
- Bentley, T. A., Page, S. J., & Laird, I. S. (2001). Accidents in the New Zealand adventure tourism industry. *Safety Science*, 38(1), 31-48.
- Bernstein, P. L. (1996). *Against the Gods: The remarkable story of risk*. New York, NY: John Wiley and Sons.
- Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience*. New York, NY: Harper Collins.
- Csikszentmihalyi, M. (1997). *Finding Flow: the Psychology of Engagement with Everyday Life*. New York, NY: Basic Books.
- Dickson, T. J. (2001). Calculating Risks: Fine's Mathematical Formula 30 Years Later. *Australian Journal of Outdoor Education*, 6(1), 31-39.
- Dickson, T. J., Chapman, J., & Hurrell, M. (2000). Risk in Outdoor Activities: The perception, the appeal, the reality. *Australian Journal of Outdoor Education*, 4(2), 10-17.
- Dickson, T. J., & Tugwell, M. (Eds.). (2000). *The Risk Management Document: Strategies in Risk Management for Outdoor and Experiential Learning*. Sydney, NSW: Outdoor Recreation Industry Council (NSW).
- Fine, W. T. (1971). Mathematical Evaluation for Controlling Hazards. *Journal of Safety Research*, 3(4), 157-166.
- Gilchrist, H., Povey, R., Dickinson, A., & Povey, R. (1995). The sensation seeking scale: its use in a study of the characteristics of people choosing 'adventure holidays'. *Personality and Individual Differences*, 19(4), 513-516.

- Greenfield, K. T. (1999). *Life On the Edge*. Retrieved 20 September, 1999, from the World Wide Web: www.pathfinder.com/time/magazine/articles/0,3266,30192-2,00.html
- Haddock, C. (1993). *Managing Risks in Outdoor Activities*. Wellington, NZ: New Zealand Mountain Safety Council.
- Hamer, D., & Copeland, P. (1998). *Living With Our Genes*. New York, NY: Anchor Books.
- Hansen, E. B., & Breivik, G. (2001). Sensation seeking as a predictor of positive and negative risk behaviour among adolescents. *Personality and Individual Differences*, 30(4), 627-640.
- Harvey, C. (2003). Peak Performance. *The Australian*, pp. 11.
- Hayhurst, J. (1997). *The Right Mountain: Lessons from Everest on the real meaning of success*. Toronto, Canada: John Wiley and Sons.
- Heino, A., van der Molen, H. H., & Wilde, G. J. S. (1996). Risk Perception, Risk Taking, Accident Involvement and the Need for Stimulation. *Safety Science*, 22(1-3), 35-48.
- Holyfield, L. (1999). Manufacturing Adventure: The buying and selling of emotions. *Journal of Contemporary Ethnography*, 28(1), 3-32.
- Jia, J., Dyer, J. S., & Butler, J. C. (1999). Measure of perceived risk. *Management Science*, 45(4), 519.
- Palmer, C. (2002). 'Shit Happens': The selling of risk in extreme sport. *The Australian Journal of Anthropology*, 13(3), 323-336.
- Priest, S., & Gass, M. A. (1997). *Effective Leadership in Adventure Programming*. Champaign, IL: Human Kinetics.
- Roehl, W. S., & Fesenmaier, D. R. (1992). Risk Perceptions and Pleasure Travel: An Exploratory Analysis. *Journal of Travel Research*, 30(4), 17.
- Sandman, P. (1990). Facing Public Outrage. *NAPEC Quarterly*, 1(1), n.a.
- Segal, M., & Sandman, P. (1990). Is It Worth the Worry? Determining Risk. *FDA Consumer*, 24(5), 1-4.
- Slovic, P. (1990). The Legitimacy of Public Perceptions of Risk. *Journal of Pesticide Reform*, 10(1), 13-15.
- Sonmez, S. F., Apostolopoulos, Y., & Tarlow, P. (1999). Tourism in crisis: Managing the effects of terrorism. *Journal of Travel Research*, 38(1), 13.
- Sonmez, S. F., & Graefe, A. R. (1998). Determining future travel behavior from past travel experience and perceptions of risk and safety. *Journal of Travel Research*, 37(2), 171.
- Walle, A. H. (1997). Pursuing risk or insight : Marketing Adventures. *Annals of Tourism Research*, 24(2), 265-282.
- Weber, K. (2001). Outdoor adventure tourism: A Review of Research Approaches. *Annals of Tourism Research*, 28(2), 360-377.
- Wilde, G. J. S. (1999). *Risk Homeostasis Theory: An overview*. Paper presented at the 1999 Wilderness Risk Management Conference, Sierra Vista, AZ.
- Zweig, P. (1974). *The Adventurer: The fate of adventure in the Western world*. London, UK: JM Dent and Sons Ltd.