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# Fear segments in tourism

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## **Abstract**

This article proposes the investigation of fear segments in tourism. By doing so, a broadly accepted strategic marketing tool (market segmentation) is integrated with a topic that presently causes significant concern to the tourism industry: the impact of negative global events on tourism demand. The concept of psychographic segmentation is extended to a new construct of tourist psychographics: kinds of perceived fears associated with vacation travel. The academic relevance lies in the introduction of a novel segmentation base to tourism research, the practical value lies in the potential for improved target marketing, minimizing the risk of demand fluctuations. The concrete aims are to (1) gain understanding of the range and nature of fears tourists perceive, (2) investigate whether categories of perceived risk postulated in earlier studies are still valid for perceived fears in 2004, (3) investigate the existence of systematic fear patterns among individuals, and (4) propose a research agenda for the systematic future study of fear segments.

## **Keywords**

perceived risk, market segmentation

## **Disciplines**

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### ABSTRACT

This article proposes the investigation of fear segments in tourism. By doing so, a broadly accepted strategic marketing tool (market segmentation) is integrated with a topic that presently causes significant concern to the tourism industry: the impact of negative global events on tourism demand. The concept of psychographic segmentation is extended to a new construct of tourist psychographics: kinds of perceived fears associated with vacation travel. The academic relevance lies in the introduction of a novel segmentation base to tourism research, the practical value lies in the potential for improved target marketing, minimizing the risk of demand fluctuations.

The concrete aims are to (1) gain understanding of the range and nature of fears tourists perceive, (2) investigate whether categories of perceived risk postulated in earlier studies are still valid for perceived fears in 2004, (3) investigate the existence of systematic fear patterns among individuals, and (4) propose a research agenda for the systematic future study of fear segments.

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### INTRODUCTION

#### PSYCHOGRAPHIC SEGMENTATION AND FEAR IN TOURISM RESEARCH

Market segmentation is common practice in tourism research (Mazanec, 2000), as a study by Baumann (2000) demonstrated. She studied 47 applications of cluster analysis in the field of tourism published in 12 different journals during the past two decades. The results indicate that half of all studies make use of some kind of psychographic variables (including benefits) to group tourists. The grouping is based on behavioural variables in 26 percent of the cases and 21 percent combine different segmentation bases. Among the psychographic variables used, motives enjoy the highest popularity, followed by involvement and familiarity constructs. Thirteen studies use benefits as segmentation criterion, although the variables used in these studies are very heterogeneous including conjoint results on product attribute importance, direct importance values of product features and motive statements.

Since Baumann's study in 2000 market segmentation remained a topic of high interest to the scientific community in tourism research. Despite the wide acceptance of market segmentation as strategic marketing tool, a number of critical issues remain unresolved (Dolničar, 2002), including, among others, a decision on the most useful segmentation base.

While these areas of segmentation research remain insufficiently studied, the research priorities from a tourism industry perspective have shifted towards the investigation of the influence of external risks on the industry. The concept of fear or risk, as it is mostly referred to in tourism literature, is not new. It is widely accepted that in an industry that is defined by the intangibility of the product, consumers take risks when they make a buying decision. Mostly, tourists' fears were studied from a perspective of avoidance or minimization assuming that the more convincingly a tourist service provider can state that the risk of purchasing their offer is low, the higher the probability of purchase.

A wide variety of risks have been discussed in prior publications (Cheron & Ritchie, 1982; Jones & Ellis, 1996; McDaniels et al., 1995; McIntyre, 1992; Murphy & Enis, 1986; Priest,

1992; Sonmez and Graefe, 1998; Tsaur, Tzeng & Wang, 1997) and comprehensively reviewed by Dickson & Dolničar (2004) who suggested the following comprehensive list of risk categories based on prior work: (1) financial risk, (2) social risk, (3) psychological risk, (4) physical risk, (5) health risk, (6) equipment / functional risk (referring to mechanical, equipment and/or organisational problems), (7) ecological risk, (8) environmental risk, (9) time risk (referring to the perception of tourist that their travel experience might be a waste of time), (10) situational risk, (11) satisfaction risk (12) real risk (13) perceived risk, (14) tourist risk, and (15) political instability and (16) terrorism. Roehl & Fesenmaier (1992) have investigated segments based on their attitudes towards terrorism risk.

Global developments of the past years have attracted interest in understanding better the fear of tourists associated with tourism and require a second wave of fear research in tourism. While there has clearly been a trend away from socio-demographics towards behavioural and attitudinal segmentation of tourists (Dolničar, 2004) in the area of segmentation research, fear segments based on kinds of perceived risks have so far not been investigated. The theoretical significance lies in the extension of the concept of psychographic market segmentation to a new segmentation base: perceived tourist fears that have the power to influence their buying decision. From an industry perspective, if fear segments are found to exist and can be targeted effectively, the new segmentation base proposed could present a demand-driven strategic solution to aid the tourism industry in preventing extreme demand fluctuations induced by negative external events.

Consequently, the aims of this study are to (1) gain understanding of the nature of fears tourists perceive under the present global circumstances, (2) investigate whether categories of perceived risk postulated in earlier studies (conducted before terrorism and pandemics were omnipresent in tourists' minds) are still valid for perceived fears in 2004, (3) investigate the existence and nature of fear patterns, and (4) propose a research agenda for the future study of fear segments.

## METHODS

Two surveys form the basis for this study. The reason that these two data sets required separate exploratory / qualitative work is due to the fact that different populations were studied and it does not seem reasonable to believe that general travellers and students would associate the same fears or concerns than travelling.

One was conducted in cooperation with World Expeditions, the market leader in trekking tourism in Australia, as first stage of a joint research project. This survey was conducted at World Expeditions offices throughout Australia with customers inquiring, booking or attending slide shows. In order to minimize the burden on customers, each respondent was asked to answer only one single very simple question. One of the following two questions approaching the topic from a slightly different perspective was randomly assigned to customers agreeing to participate<sup>1</sup>:

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<sup>1</sup> The response rate was close to 100 percent as there was a very generous prize incentive – a trekking trip for two persons worth almost \$4000 - offered by World Expeditions to maximize participation in the survey.

1. *When deciding on how to spend the next holiday, which aspects of this decision do you perceive as risky? What are you concerned about? Please write down all the concerns / worries / fears that come to your mind:*
2. *Please complete the following sentence listing all reasons that apply to you personally. "I would immediately cancel my holiday if I would find out that: ....."*

Clearly, the results from this survey do not allow investigation of fear segments yet, because no personal information was asked. The result consequently is a list, a collection of expressed fears, which was collected in an open-ended non-prompted manner in order to subsequently be used to develop systematic item batteries representing a solid segmentation basis.

The second study was conducted with Australian university students and includes 373 respondents. The first part of the survey contains the following open ended questions asking respondents to state which risks they perceive:

1. *When deciding on how to spend the next vacation, which aspects of this decision do you perceive as risky? What are you concerned about?*
2. *When going on vacation in Australia, which are the risks you perceive? What are you worried about?*
3. *When going on vacation overseas, which are the risks you perceive? What are you worried about?*

The second part of the questionnaire required the participating respondents to state the extent to which they perceived risks listed in a table in the context of a domestic and an overseas trip on a percentage scale. The percentage scale was an answer format that allows the researcher to conduct data analysis requiring metric level data. If respondents wanted to indicate, for instance, the highest extent of perceiving a certain risk, they used the value of 100, if they did not perceive a risk at all, they used the value 0. The list was derived from literature only, as neither of the two exploratory results were available when fieldwork for this study was conducted. Nevertheless, this question was asked to enable a first investigation into possible fear segments. However, the evaluation of risk levels in percentages proved to be very difficult for respondents, consequently making it impossible to investigate psychographic data-driven segments.

## RESULTS

The following perceived risk categories emerged from the open ended questions in the World Expeditions survey: (1) property risk (examples stated by respondents in this category include theft, loss of luggage, etc.), (2) environmental risk (examples included natural disasters, landslides etc.), (3) health risk (including statements as, for instance, lack of access to health care, life threatening diseases, lack of access to clean food and water, traffic accident due to sub-standard vehicles), (4) planning risk (including, among others, unreliable airline, inexperienced operator, not assured flight home), (5) political risk (mainly terrorism, political instability, war / military conflict).

Table 1 contains frequencies of the risks stated by students for three different settings: when asked in general, when asked specifically in the context of domestic travel and when asked specifically in the context of overseas travel. The differences in fear patterns for domestic and overseas travel are dramatic, with safety concerns dominating when students travel overseas.

Concrete fears like terrorism and war are not only explicitly, but very frequently stated by respondents, as can be seen in column 5 of Table 1. Almost half of the safety concerns raised in the context of domestic tourism were wildlife related. The typical overseas safety issues are not perceived to apply in Australia, pointing to an excellent marketing opportunity for the domestic tourism industry while putting outgoing operators at risk of increased fluctuating demand in future. A very similar pattern can be detected in the context of health concerns. Almost four times as many health concerns are raised in the context of overseas travel where the sub-category of diseases dominated the list. Within Australia, accidents are most frequently perceived as potential health hazards. Political stability is a fear occurring exclusively in the context of overseas travel, whereas price-related and monetary concerns do not strongly discriminate between chosen destinations. While air travel and cultural issues are not surprisingly more frequent among overseas travellers, weather is much more of a concern for tourists choosing to stay in Australia. Theft and loss of property are perceived by the respondents to be more critical when travelling overseas. Australia is perceived, however, as challenging in very specific ways which become apparent in single statements respondents made that could not be easily categorized into any of the broader categories. For instance, road safety, fear of drunken or irresponsible drivers and the concern to get lost are much more frequently stated in the context of domestic travel.

While the main aim of the three open ended questions, which led to the list of fears was to explore the fears respondents perceive in order to subsequently develop categories of fears which could be pre-tested and validated as tourist fear item batteries for large-scale surveys of tourist fear patterns, the statements provided enable very interesting insights into the differences of perceived risks in dependence of the destinations chosen. As mentioned before, these findings should be of great interest to the Australian tourism as they reveal a potentially highly lucrative market for domestic tourism, which is likely to be characterized by high overseas travelling fear levels and might support a “adventure without fear” campaign. Clearly, these findings are only indicative at this stage and would require quantitative follow-up studies not only to validate these findings but also to estimate the size of market potential.

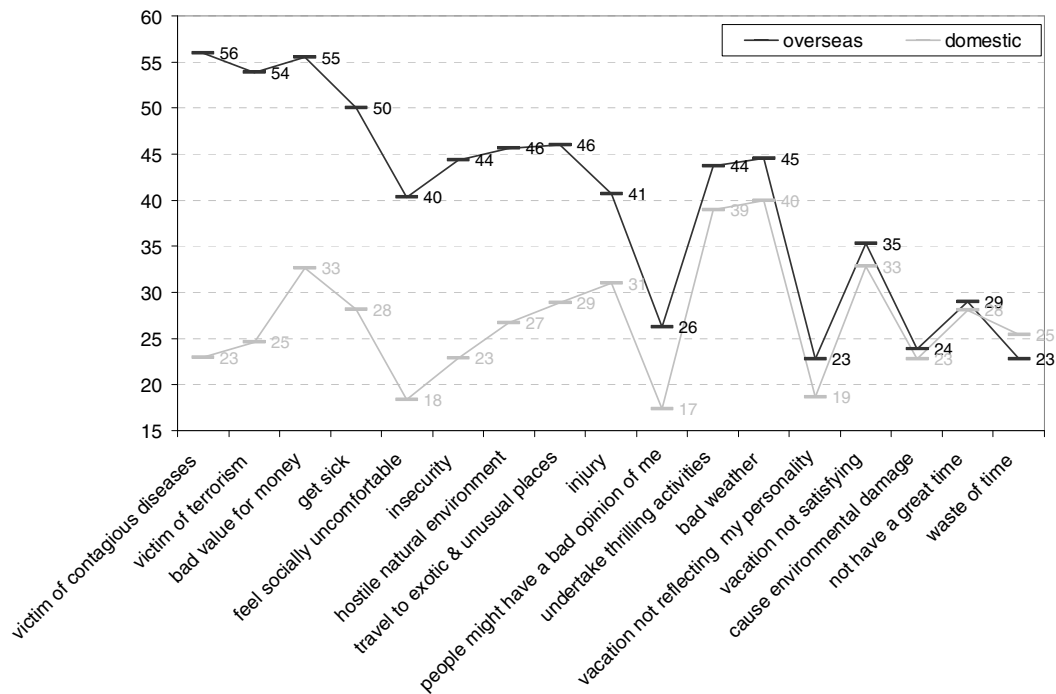
**Table 1: Perceived Fears of Adventure Tourists (in numbers of respondents)**

	<i>general</i>	<i>domestic</i>	<i>overseas</i>		<i>general</i>	<i>domestic</i>	<i>overseas</i>
Safety	157	34	177	of which:			
				Terrorism	47	2	73
				War	21	1	20
				Violence	8		3
				Attacks	4	1	
				Bombings	4		3
				Kidnapping / being held hostage	4		4
				Crime	2	2	8
				Attacked / bitten by animal		16	1
Health	48	21	76	of which:			
				Disease	12	1	19
				Injury	4	3	2
				Accident	2	8	2
				Hygiene	1		6
				Food supply	1		3
Political stability	30		18				
Value for Money	30	20	25				
Money	25	19	25	of which:			
				Not enough money	4	3	3
				Money access	1		2
				Wasting Money	1	4	

Destination	26	4	5				
Air travel	23	10	25	of which:			
				Plane crash	2	5	2
				Plane safety	1		2
Cultural risk	20	6	37	of which:			
				Culture clash	5		1
				Social	4	2	3
				Language	3		17
				Discrimination	2	1	3
Weather	18	28	2				
Loss of property	13	9	45	of which:			
				Theft	7	3	19
				Luggage	2	5	7
				Robbery	2		6
				Valuables / passport	1	1	11
Accommodation	6	7	2				
Other tourists	4	7		of which:			
				Crowded	2	6	
Other	60	80	39	of which:			
				Transportation / roads	1	24	9
				Getting lost	5	10	8
				Environment	3	4	2
				Natural disasters	3	2	1
				etc.			

The above results provide answers to the first two research aims of this project. They illustrate – based on a large students sample and a small general adventure tourism sample – the kinds of fears tourist face in 2004. It can be concluded that, in comparison to the cumulative prior work in the area of tourism risk research by various authors, no new fear categories could be revealed. However, the follow-up hypothesis of interest would clearly be to investigate whether there was a shift of perception intensity over the past decade, a research question not easily investigated due to the fact that (1) the comprehensive list of risks postulated in prior work stems from various publications and consequently lacks homogeneity in reporting, and (2) the extent of risk perception which would enable a quantitative trend investigation is not typically provided in past studies.

Besides the above collection of perceived fears, that was undertaken to improve categories for further investigations into fear segments and motivated by the potentially highly relevant finding that domestic tourism could be benefiting significantly from overseas travelling fears in the 21<sup>st</sup> century, the responses to the literature-based list of fears from the student survey was analysed. Students were asked to evaluate on a percentage scale the extent to which they perceived each one of those fears in the contexts of domestic and overseas travel separately. Figure 1 provides the resulting average values.



**Figure 1: Average fears perceived by students regarding domestic and overseas travel**

As can be seen, based on the fear items provided to respondents, the fear levels are generally higher for overseas travel, with one single exception: the concern that the vacation might be a waste of time. Among the remaining factors, one subset of fears (undertaking thrilling activities, bad weather, the vacation not reflecting the personality, the vacation not being satisfying, the potential for environmental damage caused and the concern that the vacation could not be great) follows an extremely similar pattern, with the overseas levels of fear expressed deviating only slightly. The remaining fears are perceived as differently acute in a domestic and overseas environment, respectively. This is most of all true for the fear of contagious diseases and terrorism. Overall, the findings derived from this categorised list are supporting the conclusions drawn on the basis of frequency counts of statements to open ended questions.

Besides the average profile provided in Figure 1, data-driven fear segments (concept 2 segments in the systematics proposed by Dolničar, 2004) were constructed on the basis of the overseas fear patterns (the same items that are given in Figure 1, using topology representing networks based on Euclidean distance computations), but did not prove externally valid with regard to background information not used in the segmentation process. Consequently, an a priori segmentation (following the concept 1 segmentation approach, Dolničar, 2004) was performed using the most discriminating items, fear of contagious diseases and terrorism as splitting criterion. Two extreme segments were investigated, those who stated to fear both these factors very strongly (between 70 and 100 percent) and those who did not fear them (between 0 and 30 percent). The importance of this segmentation lies, on the one hand, in (1) increasing understanding of who the tourists are who potentially cause fluctuating demand on the outbound tourism marketplace, in order to provide them with the information they need to reduce their fears, and, on the other hand, (2) gaining insight into the consumer segment who is not influenced by these “global worries” in



order to assure a stable segment that will enable the outbound tourism industry to be less dependent on external circumstances.

The resulting “high fear segment” consists of 31 percent of the sample (115 students), the “no fear segment” contains 20 percent of the respondents (74). Given that the respondent sample is highly homogeneous (all respondents are third year commerce students at a regional university in Australia) it is not expected that major socio-demographic differences exist between the segments. This assumption proves correct: no differences can be detected with regard to their age and income. Also typical age related aspects of travel behaviour, for instance, the travel party, the sources of travel information and the booking mode, do not discriminate between the fear segments.

However, two of the main marketing variables represent highly significant differences between the groups: their favourite newspapers (Chi-square p-value < 0.06), television channels (p-value < 0.003) and radio channels (p-value < 0.002). “High fear tourists” read local newspapers nearly three times as frequently (19 percent of the segment) and the Daily Telegraph twice as frequently (34 percent) as the “no fear tourists” do. The latter segment makes higher use of the Australian (13 percent of the segment members) and the Sydney Morning Herald (half of the “no fear tourists” state to read this paper). The television preferences are given in Table 2. It can be seen that the “high fear segment” tends to make more use of private networks, whereas “no fear tourists” more frequently watch national state television. The radio-patterns reflect the findings regarding television stations. Furthermore the groups differ with regard to their brochure preferences (p-value < 0.04): 30 percent of the members of the “high fear segment” were found to prefer comprehensive brochures which provide the maximum level of information, as opposed to only 18 percent in the “no fear segment”.

**Table 2: Television preferences of fear segments**

		no fear segment	fear segment
SBS	Number of respondents	13	4
	% of fear segments	18%	4%
ABC	Number of respondents	6	3
	% of fear segments	9%	3%
WIN	Number of respondents	17	33
	% of fear segments	24%	30%
Prime	Number of respondents	6	22
	% of fear segments	9%	20%
Ten	Number of respondents	25	45
	% of fear segments	35%	41%
Other	Number of respondents	4	3
	% of fear segments	6%	3%
Total	Number of non missing responses	71	110
	% of fear segments	100%	100%

Finally, the “no fear segment” goes on vacation (ANOVA p-value < 0.02) more frequently than the “high fear segment” and significantly more (Chi-square p-value < 0.02) of the members state to travel to exotic and unusual places (70 percent as opposed to 53).

## CONCLUSIONS, LIMITATIONS AND A RESEARCH AGENDA FOR THE FUTURE

This study provided insight into the tourists' fears in an ever-changing global environment characterized increasingly by unpredictable incidents like pandemics and political instability. Two different samples of tourist in Australia were used as sources to extract the nature of their fears. While no new fear / risk categories were revealed, the overwhelming frequency of safety-related concerns expressed in the context of overseas travel indicates that a shift within fear / risk categories might have taken place in the last few years. Furthermore, a gap of fear perceptions between domestic and overseas travel was identified and the assumption could be expressed that this gap might be increasing as long as global negative events do not occur in Australia, offering an excellent domestic marketing opportunity.

The above findings, based on statements to open ended questions only, were supported by the responses to a pre-defined list of fears, the perception of which was evaluated by 373 students in the contexts of both domestic and overseas travel. Fear patterns were detected. Firstly, with regard to the destination; secondly, an a priori segmentation of respondents into fear segments revealed some highly interesting segment differences with regard to central marketing variables like media consumption behaviour.

The main limitation of the present study is the homogeneity of respondents both in the adventure tourism sample (where respondents are likely to share general motivations and expectation of travel) and the student sample (where respondents are very similar regarding socio-demographic characteristics). Consequently, the findings cannot be generalized to the Australian population. However, the results derived from this study form an excellent basis for future work that should be undertaken in this promising area:

1. An item battery for tourist fear should be developed based on the above findings as well as further exploratory work, including representations of other tourist groups not included in this study (for instance, cultural tourists) and empirically validated.
2. Such an item battery would, subsequently, enable the collection of representative data for Australia, providing a strong segmentation basis to investigate fear segments.
3. If reliable and internal valid fear segments were revealed, they would have to be investigated with regard to their level of external validity and descriptive information (for instance, their travel behaviour, media behaviour and expectations of a tourist service provider).
4. Derived fear segments would have to be compared to other demographic, behavioural, and psychographic segmentation approaches to evaluate the theoretical and practical attractiveness of this novel segmentation base.

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