Navigating the high seas: Can security perceptions be influenced by demographic factors?

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Abstract

Tourism is the lifeblood of many countries and destinations. Cruise tourism is a subset of that vital and fast-growing industry, and the tourism industry’s future is plagued with many uncertainties, threats and challenges. However, the industry also presents many opportunities and possibilities. One of the key threat and challenge that must be immediately addressed is security and terrorism. It affects the entire hospitality and tourism industry.

While the complete exploratory quantitative study had 115 participants and 25 questions, the findings in this paper related to only 81 participants and five questions. The five questions related to participant’s age, gender, relationship status, income and security perceptions. The purpose of the study was to uncover whether age, gender, relationship status and/or income could influence a participant’s decision with regards to taking a cruise holiday, especially in the current security climate. The survey was conducted through Survey Monkey and the findings analysed and presented here.

The findings show that 70% of the participants consider security to be a serious issue and they take it into consideration when deciding on a cruise holiday.

Briefly the other four major findings are:

1. all ages consider security to be important
2. female are slightly more concerned about security than males
3. slightly more single people were willing to take risks, compared to the married group.
4. all income levels took security seriously

Keywords: cruise, maritime, hospitality, tourism, security, terrorism

Terrorism has become the systematic weapon of a war that knows no borders or seldom has a face

Jacques Chirac (1986)
Introduction

The future for hospitality and tourism is pitted with a myriad of challenges – one of them is the threat of terrorism. While the spectacular terrorist events of September 11th 2001 are very famous and etched in the memory of most people, terrorism itself started very much earlier and it promises to continue for the foreseeable future. There are no indications that this threat will abate any time soon. In fact the number of terrorist attacks involving hospitality and tourism seems to be increasing. Terrorists groups have been attacking hotels and food related outlets in many countries. The reason for attacking tourists is that the probability of killing or injuring several nationalities simultaneously is very high. This is the strategy of terrorism today; to use their limited resources to strike at soft targets which will provide a high yield or return. Due to the scarcity of resources, terrorists groups are very careful how they use or deploy them. They make every strike count.

To date there have not been any major terrorist incidents involving cruise ships. The closest terrorist incident to cruise ships is the attack on the cruise ship passengers at the Bardo museum in Tunisia (Paris, 2015). Security issues will continue to plague the world and it will continue to have a huge negative impact on hospitality and tourism. As the threat of terrorism increases, consumers will be more selective about their holiday plans, choice of destinations and activities. Cruise ship operators must take into consideration consumers’ risk aversion and holiday decision making.

With today’s hectic lifestyle, holidays have become rare and precious to many individuals and families. They do not get to interact with each other as much as they would like to during the rest of the year. So a lot of effort and expenses goes into planning a holiday. Having it ruined would be devastating. Keeping this in mind, it might be more prudent for consumers to opt for safer destinations and activities. Even if they are not directly affected by terrorist attacks, they could suffer delays, missed flight connections, cancellations and other uncertainties. Holidays are supposed to be the time to relax, rest and rejuvenate.

A quantitative survey with 25 questions was designed and disseminated using Survey Monkey. However, only five of the original 25 questions will be discussed in this paper. There were a total of 115 participants in the study. However, not all the participants answered all the questions. Eventually only 81 completed all the five selected questions relevant to this part of the study. The participants were from a variety of countries but their nationalities were not analysed for this study.

The main intention of this study was to explore consumer’s perspectives on cruise security and the relationship between their security considerations and their gender, age, relationship status and income. The findings will, for instance inform us whether age affects a person’s security perspective or whether someone on a higher income is more likely to be more security conscious. Basically, this study looks at the relationships based on the survey participant’s security perspective.
Cruise operators can utilise the findings to practice accurate market segmentation. For instance, they will know the calibre of customers willing to take risks and travel to destinations with lower level of security. The findings could perhaps also be useful to security agencies and government departments charged with internal security. This paper could perhaps inform policies around security or act as a springboard for a more in depth study around security and risk perceptions.

**Literature review**

**Cruise popularity**

According to Gulliksen, 2008, the first cruise took place in 1840 with only 63 passengers sailing across the Atlantic under the command of Samuel Cunnard. Since then cruise tourism has gone from strength to strength, growing into a multi-billion dollar industry. In 2014, the cruise tourism industry was valued at USD$117 billion with more than 21 million passengers (Machan, 2014). Cruise tourism popularity has been, and is continually increasing globally at a fast pace with more people considering it as an option for their vacation, even in this day and age where there are numerous security threats that have affected buyer behaviour (Henthorne, George, & Smith, 2013; Baker & Fulford, 2016). Pinnock (2014) confirmed that the cruise industry is a very fast growing sector within the tourism industry.

Cruise holidays are seen as a mobile destination with several stopovers en route. For one single fee, their travel, accommodation, meals and most of the entertainment will be covered. This is the main attraction. A 2009 study involving 1,361 participants and 28 cruise ships found that passengers were very satisfied with the overall experience and that perhaps explains why cruise holidays continue to grow in popularity (Brida, Garrido, & Devesa, 2012). The only complaints raised were about the stopover cities which the cruise lines did not have any control over. Most passengers enjoy cruising because of the single fee, variety of entertainment and activities and the numerous stopovers included. Traditional holidays will cost a lot more if one were to include all these facilities.
From a government and tourism operator viewpoint, Macpherson (2008) states that cruise tourism will provide a higher yield than other forms of tourism with minimal or low risks. This explains the reason why many countries and governments are working to encourage this very profitable seasonal revenue. Every time a vessel comes into port, there are charges incurred (Coker, 2012). As an example, diagram 1 shows the various ways money enters the New Zealand economy from the cruise industry. Money also enters a destination’s economy when passengers disembark and make purchases (e.g. meals, gifts, local tours etc) and the vessel itself needs to replenish its fuel, water, stocks and other perishables. If passengers on brief stopovers liked a particular destination or city, they may decide to return at a future date and spend more time there. This is an add-on where money will enter the economy at a later date as a result of that initial visit (Diagram 2).
Security expectations

There is a minimum level of security expected by tourists, hospitality/tourism operators and investors within the industry. Kekovic and Markovic (2009) argue that security and tourism are inseparable. They contend that the industry has to protect their guests and also secure their investment. Terrorists are constantly looking for ‘soft targets’ to attack and hospitality falls conveniently into that category. If security is not provided or if a particular destination is thought to be relatively unsafe or risky, foreign tourists will not visit that particular destination and it will also be very difficult or impossible to attract foreign investments into that destination. Zbuchea (2015) explains that political and security issues will decide a destination’s popularity. For instance, cruise ships tend to avoid troubled waters and destinations because they will not get the tourists numbers they require and the operators and their insurance providers do not want to absorb the associated risks. If these cruise ships avoid a particular destination, there are small businesses in that particular destination that are dependent on these cruise ship tourists who will suffer as well (albawaba Business, 2016; Cruise Critic, 2016). Walker (2012) argues that cruise ships will be the next target due to its attractiveness. If proper security is provided and guaranteed, it can be used as a competitive advantage over other similar destinations. Since 9/11, shipping and maritime travel has changed dramatically; the threat levels have been increased with passenger liners being attractive terrorist’s targets (Tzannatos, 2003).

A study conducted by Brun, Wolff and Larsen (2011) found that tourists were more concerned about their own safety and security, particularly after major terrorists incidents or events. This then implies that tourists rate security very highly and efforts must be made by governments, relevant authorities and hospitality related businesses to provide that sense of security and allay any fears and safety concerns.

A 2010 report by the Government Accountability Office (GAO) states that while there have not been any major terrorists attacks on cruise ship, the fact remains that there are terrorists groups with the capability to mount an attack (Government Accountability Office, 2010).

Holiday risks

According to a study with 850 participants by Reisinger and Mavondo (2006), tourists from various countries evaluate international travel and its associated risks differently. For instance, tourists from America, Hong Kong and Australia take security very seriously and feel relatively unsafe and naturally were more reluctant to travel compared to tourists from the United Kingdom, Greece and Canada. Most of these countries have experienced some form of unrest, terrorist incidents or disaster in recent times.

Garg (2015) discusses how safety and security affects tourist’s decision making process. According to the article, tourists tend to visit places familiar to them and where the tendency for natural disasters, diseases, terrorism, political instability are considered low. They consciously avoid countries or destinations that are perceived to be high risk. A lot of money, time and effort is expanded into planning a holiday. Annual vacations are considered special and precious and nobody wants it to be spoilt. Concerned governments
regularly release travel advisories for various countries depending on the information or intelligence they receive. If travel to risky destinations are unavoidable, governments requests their citizens to notify the relevant government departments, ministries and/or overseas missions before embarking on these trips. This will assist in accounting for their citizens in case of an emergency. Some of these travel advisories not only negatively impact affected destinations, but also their close neighbours (Henderson, 2003).

Korstanje and Skoll (2014) argue that terrorists consider tourists as collateral damage when it comes to highlighting their cause. Generally tourists are considered to be rich and of high status and therefore are useful targets that will provide much needed attention on their plight. Greenberg, Chalk, Wilis, Ivan, & Ortiz (2006) and Peter (2016) describe cruise ships as iconic western targets, ferrying rich tourists. This makes them a valuable, attractive, exposed and an ‘soft target’. 

**Risk aversion**

Bowen, Fidgeon and Page (2014) claim that maritime terrorism is an area that is under grossly researched. According to their study, 44% of the respondents believe that terrorism involving cruise ships is very possible even with the current security regime in place. Respondents believe that there is still more room for improvements with regards to security measures. A lot more can, and should be done.

A 2005 study conducted by Solomon, Gelkopf and Bleich (2005) states that women have a higher sense of threat compared to their male counterparts. The article states that women have a six times higher chance of developing post-traumatic stress compared to men following any terrorist incident. The effect is greater on women as opposed to men. These findings logically conclude that women would take security more seriously due to their natural aversion to such dangerous events.

Burnham and Hooper (2008) conducted a study on school students and their risk perception. Without providing any reason for the phenomena, the findings showed that young girls were more safety and security conscious as they indicated that they were more afraid of various terrorist incidents compared to young boys. These students had not experienced terrorism first hand but had instead learnt about it through the various media and other channels of exposure.

In a 2016 New Zealand Herald article, Dr. Bridgette Sullivan-Taylor was quoted as having said that New Zealand businesses are in general not taking any steps to protect themselves against any extreme events (New Zealand Herald, 2016). Dr. Sullivan-Taylor said that this is consistent with other countries where they believe that geography would protect them. She goes on to say that people only get concerned about security when they have experienced it first-hand. Unless this concept or theory of immunity from terrorism is demolished, it is unlikely that people will take security seriously or prepare and protect themselves against possible terrorist attacks.
Methodology

This study was conducted using Survey Monkey as a tool to collect and collate the raw data. A total of 25 questions relating to security/terrorism and cruise ships were designed and uploaded onto Survey Monkey. Participants were invited to partake in the survey initially using the researchers own networks. The link to the survey was advertised on Facebook and participants were asked to also invite their personal networks to partake in the survey as well. This is ‘snowball sampling’ where research participants and respondents introduce others whom they believe can add value to the study (Bryman, 2008). The recruitment of participants was not limited to a particular number or amount. In many ways, the researcher had little or no control over who participated in the survey. Even though the link to the survey was advertised on the researcher’s Facebook page, it was difficult to predict who would participate and who would not, and it was left to chance. Basically, the more participants, the better the accuracy and chance of understanding the relationships explored. Also the type of participants was not restricted. The study wanted anyone that had been on a cruise holiday or was considering going on a cruise holiday sometime in the future. The thinking behind the design of the research was that anyone considering a cruise holiday might have thought about security, even momentarily. This would help explain whether security played a role in holiday decision making.

While the questionnaire had a total of 25 questions, only five questions were selected and analysed for this part of the study. The rest of the questions are expected to be analysed at different stages for other studies. The questions, aside from a few relating to demographic information, mainly related to terrorism and tourist’s risk perceptions and it was ensured that the participants fully understood what the survey was about.

Once the data had been collated, they were studied for significant patterns specifically investigating the relationships between security and the other four segments (age, gender, relationship status and income). These patterns would perhaps explain how each part/question associates with the others. In this case, the underlying question was to discover whether age, gender, relationship status and income had any impacts on participant’s security perceptions. Basically, the study explored whether for instance age or relationship status made participants more or less security conscious. The purpose was to find out whether an influential relationship existed between the segments. The data will be verified using chi-square tests and presented in the form of self-explanatory charts and tables.

All collected data, in its raw and transcribed formed, is being stored by the researcher on a password protected memory storage device. Once the findings have been published and the raw and transcribed data no longer required; the data will be deleted.

Findings, analysis and discussion

The purpose of this study was to explore the cruise industry consumer’s understanding of risk and to investigate whether variables such as age, gender, relationship status and
income had any impact on their perception of risk. The hospitality industry has been negatively affected by terrorism for some time now and it seems to be an ongoing problem. Security in the context of this study is in essence about terrorism and the associated risks. While cruise ships have not yet been specifically targeted, terrorists groups have indicated a desire for a maritime attack (Brown, 2016; Robertson, Cruickshank, & Lister, 2012; Parfomak & Frittelli, 2007).

A total of 81 participants responded to all relevant five questions in this study. Of the 81 participants, 57 or 70% of the participants stated that security was a major factor when they chose their cruise holiday (Chart 1). 24 or 30% of the participants did not consider security at all when making holiday decisions (Chart 1). A recent poll in United States of America regarding its 2016 presidential election states that voters are concerned mainly about the economy (84%) and terrorism (80%) (Pew Research Center, 2016). These two issues are expected to play a big role in the final outcome of the elections. This study’s findings also indicate that participants rank security very highly (70%).

To understand the question of risk perception further, each variable, age, gender, relationship status and income was compared to the responses from the security question: *Is security a factor when you choose your cruise holiday?*

**Age**

There were four main generally accepted age ranges used for this part of the data collection: 18-29, 30-44, 45-59 and 60+. Within each age range, the data was further refined to find out the exact percentages that took security into consideration when planning a cruise decision and the percentage of participants that did not believe security was an issue.

Except for the participants who were 60 and over, the rest of the participants believe that security is a serious issue (chart 2). 71% of the 18-29 age bracket participants consider security when planning their cruise holiday. The most security concerned group in the study seems to be those in the 45-59 age range at 80% responding that security was a factor to be
considered. These could perhaps be people who are more mature and settled in their jobs and quite possibly have young families. With the 60+ group (which had only 7 participants), it is difficult to explain their actions and responses. Besides, with only 7 participants, it would be difficult to generalise the findings. Chi-square test was applied to this scenario and the statistic was 3.723 ($\chi^2$) and $p$-value was 0.292967. This demonstrates that almost everyone, regardless of age, is concerned about their personal safety and security.

**Gender**

With regards to gender (chart 3), 37 males and 44 females participated in the study. Out of the 37 males, 68% of them consider security before embarking on their cruise holidays plans, and 73% of the female participants also factor security into their holiday plans. The difference between the two groups is quite small and insignificant though it could be said that females take security threats against themselves and their families and friends more seriously than their male counterparts. Possibly their maternal instinct is to protect loved ones. The ‘white male effect’ states that the male gender perceives risk as being low (Finucane, Slovic, Mertz, Flynn, & Satterfield, 2010). They do not rank it as high as their female counterparts. The findings of this study align with the definition of the ‘white male effect’. Chi-square test was applied to this scenario and the statistic was 0.2566 ($\chi^2$) and $p$-value was 0.612447. This demonstrates that regardless of gender, participants are concerned about their security.

**Relationship status**

![Chart 4: Relationship status](image)
According to this study there appears to be a large number of married people taking cruises (Chart 4). There are no indications whether they take the cruise as a couple or on their own. That question was not addressed in the survey. However, it is quite clear that most people are very concerned about security and factor it into their planning and decision making. Comparing just two groups within this segment; the married group and the single never married group, the married group (73%) seems to take security more seriously than the single group (59%) (Table 1). It is unclear whether married people are more security conscious than single people because they are married. For each individual category (Chart 4), the ‘yes’ response was higher than the ‘no’ response. This clarifies that security is not dependent on a person’s relationship status. Chi-square test was applied to this scenario and the statistic was 1.1053 ($\chi^2$) and $p$-value was 0.293099. This demonstrates that regardless whether people are single or married, they were all concerned about security.

**Income**

The purpose of including the question on income in the survey was to ascertain whether income levels affected security perceptions. It is clear from the results that all income levels consider security to be very important (Chart 5). Approximately 50% (41 out of 81) of the participants in this study had income levels between either $25,000 to $49,999 or $50,000 to $74,999. 60% of participants with incomes between $25,000 to $49,999 and 71% of participants with incomes between $50,000 to $74,999 responded ‘yes’ to the
security question (Table 2). Chi-square test was applied to this scenario and the statistic was 0.595 ($\chi^2$) and $p$-value was 0.440488. This confirms that regardless of income levels, participants considered security to be an important factor in their decision making process.

While there may not appear be an influential relationship between security and age, gender, relationship status and income levels; the findings from this study confirm that the majority of the participants factor security into their thinking and holiday purchase decisions. It also provides very useful information in terms of the breakdown of the security risks perceptions for each individual category studied. This information would be useful for service providers in order to provide the correct levels of security to the correct demographic group. It also helps service providers to target the correct market segments with the correct products.

Limitations and opportunities for further research

This study only considered five questions out of the 25 questions initially posed to the participants. Taking into account the remaining 20 questions could perhaps have presented a different outcome. There is scope for further analysis to include all 25 questions. While the findings informs us that participants take security seriously overall, the study does not explain why this is the case. Why is security important enough to affect their decision making process? A qualitative type study with semi-structured interviews could perhaps address the ‘why’ question which would be more useful to service providers and suppliers.

Conclusion

Security is a major concern to cruise holiday consumers, especially with the hospitality industry being targeted with land-based attacks. There have been several major terrorist incidents involving hotels and food outlets over the past few years. While there have not been any major attacks involving cruise ships, it does not mean that it will not happen in future. Terrorist are constantly looking for newer, more iconic and softer targets. Basically, the bigger the target, the bigger and louder the headlines. Cruise ships could possibly fit that bill. Documents belonging to terrorists indicate a desire to carry out an attack at sea. Islamic State of Iraq and Syria (ISIS) is also known to be acquiring their own ‘navy’ (Farmer, 2016; Chan, 2016). This again clearly implies a naval attack is well within their capabilities and desire.

With regards to practical implications, the findings from this study is crucial to cruise ship operators as well as various government security agencies charged with providing port security. It could perhaps help the industry to include security into their long-term
strategies. It is expected that cruise ship operators and port security have to work closely together to ensure that cruising is kept safe. Cruise ships are often about island hopping which could include smaller countries with a more laissez-faire attitude towards security. These stops could eventually be the weak link in the chain. Continual land and sea vigilance including strict staff and passenger vetting is mandatory to ensure a safe passage for the industry.

*In the midst of chaos, there is also opportunity*

Sun Tzu, *The Art of War*
Reference


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