

Natalee Holloway's impact on the tourism demand of Aruba

An unfortunate incident

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Summary

The principal purpose of this thesis research is to analyze what effect the disappearance of Natalee Holloway, an American teenage girl, had on the tourism demand of Aruba. This effect will be measured by looking at the most important markets of the Island which are the US, Venezuela and the Netherlands. A review of cases will reveal if personal harm (loss), in combination with lots of media attention, can have an impact on the tourism demand of a location and therefore also give an indication of what can be expected in the case of Aruba. The paper focuses on answering the question: *How has the Natalee Holloway incident affected the tourist inflow for the island of Aruba?* The findings in this thesis research suggest that the three major markets of Aruba were not significantly impacted from the Natalee Holloway incident, this also applicable for the whole tourism sector considering that these three markets give a good representation of the full tourism market.

Preface

In 2005, on December 15 Atlanta Governor Sonny Perdue issued the following statement encouraging Georgians to boycott travel to Aruba:

“I want to join my friend, Governor Bob Riley, in his call for a travel boycott of Aruba. This boycott is necessary because Aruban authorities have failed to conduct a serious investigation of the disappearance of Natalee Holloway. We have no quarrel with good citizens of Aruba, but the actions of their leaders cannot be taken lightly. I encourage my fellow Georgians to stand with the Holloway family and the people of Alabama who have been touched by this deeply saddening case.”

During my studies at the Erasmus University I have been conducting my final thesis project for my master degree in Urban, Port and Transport economics. My thesis project concerns the impact of Natalee Holloway disappearance on the tourism demand of Aruba. This topic greatly interests me due to the fact that tourism is one of the main economic drivers off my hometown, Aruba. Any impact on the tourism sector can have severe consequences for a small island, such as Aruba. Hopefully, you will enjoy reading this thesis at least as much I enjoyed writing it.

Acknowledgements

I would like to extend my sincere gratitude to (Erwin van Tuijl) for his guidance during my thesis research. I also want to thank Peran van Reeven at Erasmus University for helping me with the statistical analysis during this project. Last but not least, I would like to thank Carlos for always encouraging me, in every way possible. My parents for the being the best parents anyone can every hope for. For my brothers which have always protected me and also every family, friends and acquaintances that have helped me in some way.

Table of content

| | |
|--|-----------|
| SUMMARY | 2 |
| PREFACE | 3 |
| ACKNOWLEDGEMENTS | 3 |
| OVERVIEW OF TABLES AND FIGURES | 5 |
| CHAPTER 1: INTRODUCTION | 7 |
| 1.1 RELEVANCE | 7 |
| 1.2 RESEARCH QUESTION | 8 |
| 1.3 PURPOSE | 9 |
| 1.4 METHODOLOGY | 9 |
| 1.5 STRUCTURE | 9 |
| CHAPTER 2: THEORETICAL REVIEW | 11 |
| 2.1 TOURISM | 11 |
| 2.2 DIFFERENT SORTS OF TOURISM | 13 |
| 2.3 TOURIST TYPOLOGY | 15 |
| 2.4 IMPORTANT TOURISM MARKET | 17 |
| 2.5 SEGMENTS IN TOURISM | 17 |
| 2.6 CONCLUSION | 18 |
| CHAPTER 3: TOURISM DISASTER | 19 |
| 3.1. CASE STUDIES | 19 |
| 3.2. TERRORISM | 22 |
| 3.2.1 Conclusion on Terrorism | 26 |
| 3.3 NATURAL DISASTERS | 31 |
| 3.3.1 Conclusion on Natural disasters | 36 |
| 3.4 MURDERS & CRIMES | 40 |
| 3.4.1 Conclusion on Larger areas | 44 |
| 3.4.2. Conclusion for the Caribbean | 51 |
| 3.5 COMPARISON BETWEEN CASES AND CONCLUSIONS | 54 |
| 3.6 HYPOTHESIS | 59 |
| CHAPTER 4: TOURISM DEMAND MODEL | 60 |
| 4.1 METHOD | 60 |
| 4.2 DEFINING THE MODEL | 60 |
| 4.2.1 Defining the dependent variables | 61 |
| 4.2.2 Defining the independent variables | 61 |
| 4.2.3 Exclusion of independent variables | 64 |
| 4.4 GOODNESS OF FIT | 65 |
| CHAPTER 5: TESTING OF THE HYPOTHESES | 67 |
| 5.1 CASE 1: US MARKET | 67 |

| | |
|--|-----------|
| 5.2 CASE 2: VENEZUELAN MARKET | 69 |
| 5.3 CASE 3: DUTCH MARKET | 73 |
| 5.4 CONCLUSION | 75 |
| CHAPTER 6: CONCLUSION & RECOMMENDATIONS | 76 |
| 6.1 CONCLUSION | 76 |
| 6.2 RECOMMENDATIONS | 77 |
| REFERENCE | 78 |
| APPENDIX | 81 |

Overview of Tables and Figures

Figures

| | |
|---|----|
| Figure 1: Categorization of travelers | 16 |
| Figure 2: Aruba's tourism market share | 17 |
| Figure 3: Case illustration | 20 |
| Figure 4: Example residual plot | 65 |
| Figure 5: Residual plot of the US model | 67 |
| Figure 6: Residual plot of the Venezuelan model | 70 |
| Figure 7: Residual plot of the Dutch model | 73 |

Tables

| | |
|--|----|
| Table 1: Similarities and Differences in definitions | 12 |
| Table 2: Categorization of tourism forms | 15 |
| Table 3: The Effects of the 9/11 attacks | 24 |
| Table 4: Regional effects | 25 |
| Table 5: Analysis of the cases | 29 |
| Table 6: Impact on Taiwan's tourism sector | 31 |
| Table 7: Impact on Thailand's tourism sector | 33 |
| Table 8: impact of Katharina | 35 |
| Table 9: Analysis of the cases | 38 |
| Table 10: Impact of Miami | 43 |
| Table 11: Analysis of the cases | 46 |
| Table 12: Analysis of the cases | 52 |
| Table 13: Impact of tourist arrivals | 57 |
| Table 14: Output of US model | 69 |
| Table 15: Output of Venezuela's model | 72 |
| Table 16: Output of Netherland's model | 75 |
| Table 17: P-value for all three markets. | 76 |

Chapter 1: Introduction

1.1 Relevance

Located in the southern Caribbean, 15-miles of the Venezuelan coast, Aruba is a small jewel located in the Caribbean covering 181 square miles of land. Being surrounded by breathtaking blue sky and crystal clear water, having a white sandy beaches and limitless pleasure under the sun is just some of the many enjoyments that the island of Aruba could provide. With approximately 700.000 visitors staying over in 2006, tourism has become of utter importance for the economic development of the island¹. The tourism industry forms 85 % of the economy of the island entitled “One Happy Island”.²

Even though Aruba possesses multiple characteristics of being a well dreamed off vacation spot, it has endured negative media coverage over the last few years due to the unfortunate disappearance of Natalee Holloway, an American student that was vacationing on the island in celebration of her graduation. Since May 30 of 2005, Natalee has been reported missing, without any sign of being found. This occurrence led to media frenzy and a massive influx of negative publicity for the island of Aruba.

Headlines such as “Natalee Holloway missing teen case hurting Aruba’s tourism industry”³ and “Boycott Aruba”⁴ have helped fortify the concerns that this incident would hurt the tourism demand of Aruba. Public entities of Aruba such as the Aruban government, AHATA (Aruba Hotel and Tourism Association) and ATA (Aruba Tourism Authority) have made their concerns public about the possible disastrous outcome that this occurrence could have on tourism industry of Aruba.⁵

Headlines like these and personal association with the island is what sparked the interest for this topic. With all the negative attention brought on the island, it is the question whether it has caused any changes in the tourism demand for tourist towards the island. The notion behind this essay is that the negative media attention surrounding the disappearance of Natalee might have created a negative image of Aruba, as a dangerous and unsafe vacation spot. If this were to be true it could lead to a declining tourism demand and consequently to a deterioration in the tourist arrival sector. Therefore this thesis research will analyze how the tourism demand has developed after the incident.

1 www.cbs.aw. Table of overnight stays per country 1986-2006, 30-06-2008

2 <http://www.cdnn.info/news/travel/t060403.html>, accessed July 2008

3 <http://www.cdnn.info/news/travel/t060403.html>, accessed August 2008

4 <http://www.caribbeannetnews.com/2005/11/14/readers.shtml>, accessed January 2008

5 Different sources used: <http://www.cdnn.info/news/travel/t060403.html>, www.aruba.com, www.diarioaruba.com, www.AHATA.com, <http://travel.latimes.com/articles/la-trw-aruba4jun4>

1.2 Research question

Main research question

How has the Natalee Holloway incident affected the tourist inflow for the island of Aruba?

According to Albuquerque (1984), the Caribbean region is highly dependent on tourism, for some islands there is even a state of mono-economy. Hence, whenever an island within the Caribbean experiences some form of disturbance within its tourism industry it might be cause for concern. Therefore this thesis research will explore the possible impacts that the disappearance of Natalee Holloway might have had on Aruba's tourism demand after the incident took place.

In order to say something about the tourism demand, the changes in tourist arrivals will be measured, taking into account that tourist arrivals is considered as the most suitable indicator (Gang, Haiyan and Witt, 2005). In addition it has proven to be the most practical for measuring differences in arrival flows for places that have dealt with crimes, violence or other (natural) incidents Pizam (1999), Vanegas (2000 & 2005) and Ryan (1993). Although the cause of disappearance for Natalee is still unknown, it is presumed to be an act of crime or murder and as such the application of the indicator is validated.

Sub questions

Secondary questions are created so as to support and guide the main question. Therefore this section will include several sub-questions that create the foundation for this thesis research.

1. What is the importance of tourism for Aruba?
2. What is the impact of a negative experience on the tourism demand in the affected location?
3. How can the tourism demand in relation to Natalee Holloway's case be analyzed for Aruba?
4. To what extend have the major markets, US, Netherlands and Venezuela, been influenced by this event.
 - That the US market would show some indignation is comprehensible. However examining the changes on tourism demand coming from Venezuela and Netherlands might also be interesting. Considering they have respectively 15% and 12%???? Of the total tourism market making them the second and third most important markets for Aruba. This three markets combine form about 85% of the total market and thus is representative for the total market.

1.3 Purpose

As mentioned above there have been numerous speculations and concerns coming from the governmental institutions, on the possible consequence of Natalee Holloway's disappearance on Aruba's tourism. However there has been no research done in order to confirm or dismiss these speculations. That is why this thesis research will examine the impact this incident had on tourism demand of Aruba and in addition provide an answer for these speculations.

1.4 Methodology

In order to come to a better understanding of this topic and its impact on the island, a combination of theoretical review as well as a quantitative analysis would be more fitting. The theoretical fragment will first of explain the relevant theory and secondly, provide a review of cases that have also gone through negative incidents with plenty of media attention. The changes in tourist demand after these occurrences have taken place, should give an indication of what can be expected for the case of Aruba. Based on the results obtained through the literature review, a hypothesis will be formed for Aruba's case which will be tested in the form of a model. In order to measure a change in the tourism demand that would be caused by the disappearance of Natalee, a time based model will be utilized. The purpose of this model would be to illustrate the difference in the tourist demand trend, had this not occurred. The model's function will be to recreate the tourist flow had this not happened and see for how long these effects would be felt in the tourism industry.

Desk research will provide the necessary variables that will be used within the model. With the help of this, the changes in tourist demand which can best be identified as tourist arrivals will be tested and also the use of a dummy factor (Natalee Holloway, 2005) will determine how big the changes were on the tourism demand for Aruba.

What needs to be noted is that the quantitative data used can only provide a short term effect on the island's industry because this incident took place in 2005. Thus only the data up to 2008 can be taken into consideration when estimating the model. The model used, will be a time series model which is capable to isolate the deviation caused by the impact from the expected value had the incident not occurred. It recreates a situation without the incident taking place.

1.5 Structure

In order to formulate an answer about the impact on the tourism demand of Aruba, the paper will be structured as follow. The second chapter will discuss the different terminologies used in the tourism world. In addition the significance of tourism for Aruba will be discussed. Chapter three will provide a literature review and also answer the second sub question. Chapter four will contain the explanations of the (in) dependent variables and the motivation for their use

and simultaneously answer the third sub question. Chapter five will make room for the testing of the hypotheses and also render an answer for the fourth sub question. Chapter six will yield the conclusions of the theoretical as well as the empirical analysis and reveal the answer to the main question. Along with presenting an answer it will give a summary on the findings of this study and give advice for future research possibilities and touristic policies that may be applicable for Aruba.

Chapter 2: Theoretical review

Tourism is the world's biggest industry, according to World Tourism Organization and World Travel & Tourism Council, hereafter to be referred to as WTO and WTTC. Tourism was able to generate the biggest export earnings for the year 1994, winning it from both the petroleum and the automotive industry, thus overthrowing both industry of their ranking (Youell, 1998).

However for islands in the Caribbean it is the tourism industry that is the most important contributor to the national economy (Albuquerque, 1984). Just as other island of the Caribbean it is crucial to Aruba to have a prospering tourism industry in order for it to prosper. Therefore the following section will encompass the theoretical literature and topics covered throughout this whole paper. This chapter will finish off with the rendering of the importance of tourism for the island of Aruba.

2.1 Tourism

A great deal of organization and countries have created and implemented their own version of definition for tourism. E.g. the United States looks at the "activities of persons travelling to and staying in places outside their usual environment for not more than a period of one year for leisure, business and other purposes" (WTO, 1997). This definition coincides with the one from World Tourism Organization, which has been employed the most by different countries and institutions. In addition Aruba utilizes the same definition stated above (Central Bank of Aruba, CBA). The United Kingdom defines the term as "movement of people to destinations that are not their usual work and living habitats, where activities can be undergone with the focus on a short period"⁶. Cooper, Fletcher, Gilbert and Wanhill (1993) have similar definition; they note that tourism refers to leaving the normal home and work sphere for a certain time-span and going to a location that caters to the needs of tourists with different activities and amenities. Kelly (1985) defines tourism as a search to take part in leisure activities, thus when considering her terminology only travelers pursuing recreation away from home and where the journey is considered as a part of the adventure, can fall in the categorization of a touristic trip and thus be accounted to tourism.

On the other hand there are economists defining tourism as traveling altogether with the exceptions of commuting, which means that every motive for traveling would have been considered as part of a touristic trip (Gunn, 1988). This can bring about differences in the measuring systems, considering that within Gunn's definition it is probable that everyday errands such as trips to the supermarket and doctor's office are taken into consideration. Table 1 provides an overview of the different forms of definition. Considering that the WTO is a

⁶ Tourism Society, 1982

known and much applied definition this will serve as a basis for comparison with the other terminologies discussed in this chapter.

Table 1: Similarities and Differences in definitions

| Definition of tourism | | | |
|-----------------------|---------------------------|--|--|
| Authors | Leaving usual environment | Time span | Difference compared to WTO definition |
| Tourism Society (UK) | Compulsory | Short period of time | The time span is not concrete |
| Cooper, et al. 1993 | Compulsory | Certain period of time | The time span is not concrete Touristic activities and amenities are required |
| Kelly 1985 | Compulsory | Not mentioned, but can be deduced that it is essential | Pursuit of touristic adventure/recreation was required |
| Gunn 1988 | Not compulsory | Not mentioned | Every travel experience with the exception of commuting |

Out of the various definitions that have passed the review, there are two basic characteristics which have repeatedly been mentioned when describing tourism. The first characteristic would be that taking distance from your everyday environment is compulsory and secondly that there is a specific period of time that needs to elapse in order to be typify as tourism. Both of these characteristics are met when visiting Aruba. It is obligatory for visitors to leave their normal environment, considering that Aruba is not connected with any other land and thus flying is mandatory. Secondly, a certain period of time has to elapse before reaching and during the stay on the island, thus meeting the second criteria as well.

Grey areas of definitions

However differences arise when countries form their own definitions by focusing on certain characteristic e.g. distance range. There are countries that have implemented a minimum required travel distance, in order to be able to qualify as a touristic trip. Conversely there are countries that look at the length of days stayed, there is a minimum and maximum stipulated in order to fall into the touristic category, in addition some countries only acknowledge touristic trip when they are noted in the “Purpose of visit” category Cooper et al. (1993). These

differences between countries explicate the difficulty that can arise when comparing data. E.g. acknowledging a touristic trip can depend if it can be noted under the subcategories purpose of visit, leaving out travelers that have chosen to go by car, bus, train etc. Also travelers within the US and the European community are regularly omitted from this category considering that there is no border control and thus are not registered as touristic trip. However estimation of these trips is made on a yearly basis.

The following section will give an overview of the different forms of tourism that are applicable on any level.

2.2 Different sorts of tourism

Aruba's dependence on international tourism is very large and because of this the following section will render an overview of the different sorts of tourism and consider which group is more influential for this case. The groups that are to be discussed are the domestic, inbound and outbound tourism forms. In addition, this will also provide an indication of which group should be considered for the Natalee Holloway case. For this section the Encyclopedia of Tourism (2000) was consulted.

Domestic tourism is a reoccurring form of tourism for every country, regardless of the size. Every country deals with domestic tourism; this refers to residents opting to travel as visitors within their own area and country. Nevertheless, considering the previous section, they are required to everyday activities behind in order to fall into the category of tourism. Considering an island situation, such as Aruba, this type of tourism is also conceivable since residents are able to choose if they want to leave their homes and decide to occupy their sea-side apartments or choose to rent a hotel e.g. a week.

Inbound tourism refers to non-residents having to cross international borders in order to reach there destination. Inbound tourism has become an important factor in the tourism sector of countries which are primarily dependent on tourism. According to Albuquerque (1981) the Caribbean has become the region that is mostly dependent the tourism industry. That is why Aruba also considers this sort of tourism as being the most important for its survival and development.

Tourists that prefer vacationing in areas outside there normal living spaces, fall under the category of outbound tourism. These residents can either decide to stay in their own country (domestic tourism) or choose to cross border (international tourism). The difference between inbound and outbound is that with inbound, inflow patterns of non-residents, not residing in that state or region, are followed and recorded. Outbound focuses at the residents of a particular area (state/country) opting for vacationing outside their daily area. So in essence the subject that is being observed is different between the two.

Given that this research will try to illustrate the change in the tourism demand of international visitors, in particular for the Americans, it would be appropriate to focus on the international tourism sector. This is the main group for this research because not only does Aruba try to get as much foreigners to the island as possible but they also form the most important propeller for the growth of the economy. Domestic tourism on the other hand is of less important because they would not be able maintains the current economy growth as is and in addition it will be less likely that they would have been influenced by the Natalee Holloway incident. It is highly unlikely that residents opted to leave the island or vacation somewhere else due to this incident.

However larger countries might be more hesitant towards all three sorts of tourism whenever a (relative) big incident occurs. In these countries domestic tourism is considered as a redistribution of wealth therefore whenever something occurs; it can obstruct the flow of money within a country and its further development (Jafari, 2000). Inbound tourism pumps new money in the form of foreign currency in a country, but when this segment is affected (negatively) by such incidents it might induce a change in the development process and resources of a country. Changes in outbound tourism due to (negative) events can also be influential for the tourism industry considering that there are not only losses in the number of visitors but also a loss in capital which is being disbursed somewhere else. An overview of the dissimilarities between countries of different size is reproduced in table 2.

Even though for bigger countries, all three forms might be equally important to monitor, this thesis research will only concentrate on the *inbound* segment in the continuance of this paper. This will be done because this group is the worth observing for the case of Aruba, due to its importance for the economy. The inbound market is crucial for the case of Aruba, therefore when performing the case study only the inbound tourism will be evaluated for all cases.

Table 2: Categorization of tourism forms

| Sorts | Characteristics | Large countries | Caribbean |
|-------------------------|--|--|--|
| Domestic Tourism | Travelling within the border of your country | Is of importance, acts as stimulants | Is less important than the international tourism development |
| Inbound Tourism | Crossing borders (International tourism) | Is important acts as stimulants to the economy | Is essential for the development of the region |
| Outbound Tourism | Travelling outside national border | Is important due to its money circulating effect | Is less important than the international tourism development |

This section points out the differences within a big economy and that of a smaller one consisting primarily out of mono-industry. Bigger economies value the different segments more or less equally while smaller economies, such as Aruba, generally focus their attention towards international tourism because its tourism development depends on it. Consequently the inbound tourism sector forms the most important group.

The following section will provide an overview of the different types of tourist that can be encountered.

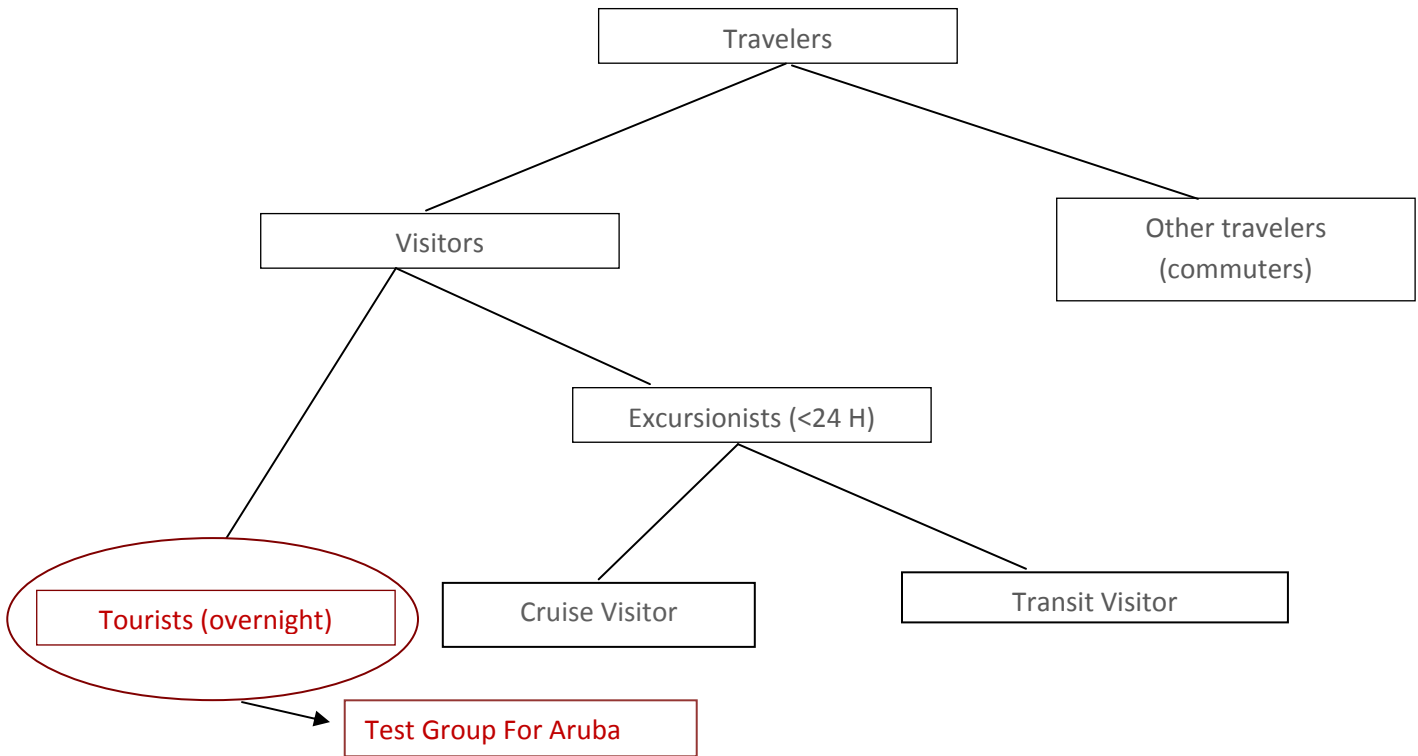
2.3 Tourist typology

That every traveler is a visitor but not every visitor is a tourist can be derived from the agreements made about terminologies employed in the tourism vocabulary. The World Tourism Organization (WTO) formulated various terminologies, with their respective definition, in order to have a common classification that is applicable worldwide. These definition will be further elaborated in this section and will also shed led on the relevancy of type of tourist that will be included in this case. For this section the book of World Tourism Organization will be utilized (Gee, 1997).

The differences between a traveler, visitor and tourist will be explained here after. A traveler refers to having to move between two or more places. E.g. going to school or to your work establishes you as a traveler by definition. Visitors on the other hand can be either a one-day visitor (excursionist) or a tourist. The difference between these two is time-related. Excursionist stay a short amount of time (<24hours) within one place. Whereas a tourist is defined by

someone that is visiting a place and staying for more than 24 hours consecutively and thus having to overnight. The means of hospitality is not of importance, either it be collective of private accommodation facilities, the main characteristics is that one is required to overnight. Figure 1 illustrates the different forms of traveler that can be distinguished and also points out the sorts that are most relevant for Aruba.

Figure 1: Categorization of travelers



Source: WTO, 1997

As depicted above only the tourist group (overnighters) will form part of the testing group for this thesis research. The changes in tourism demand towards Aruba from this group will be examined and monitored in order to see if the attention surrounding the Natalee Holloway case did in fact induce a change in the travel demand towards Aruba.

Tourists are included in the research because it is believed that they have used all the available information to their disposal and have weighted this to other destination before making a rational decision. Therefore, they would make good candidates for this test since they have undergone the whole decision making process with a positive result towards the island of Aruba.

Transit visitors, commuters and cruise visitors are all excluded from this research. Transit visitors and commuters are excluded because there is little reason to believe that they would

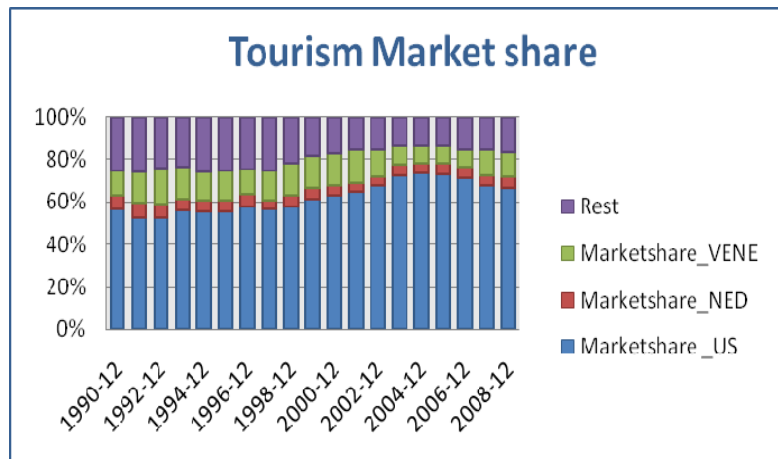
be affected by the case of Natalee Holloway. Transit Visitors (excursionist) staying within the airport awaiting a connecting flight would be less inclined to feel threatened or scared by the situation on the island, seeing that they do not come in contact with locals. In addition this group would not be suitable because they are less likely to change their current tourism demand, as having to only go through Aruba in order to reach their destination, because of what happened on Aruba. The initial thought of observing the tourism demand of cruise visitors was discontinued after examining the data which appeared to be faulty. The data had shown signs of being incomplete and inconsistent. To finish, commuters are excluded because as mentioned above residents are not going to change their residency and vacationing patterns because of what happened. Therefore it is believed that the tourist group would be the only group that is more reliable and better suitable for this research.

2.4 Important tourism market

As mentioned above, the tourist arrivals will be used to determine the changes in tourism demand. For that reason it was thought to be important to look at the three major

Figure 2: Aruba's tourism market share

markets of Aruba which are the USA, Venezuela and the Netherlands. According to figure 2 these three countries form a majority of the tourism market share of the island, accounting for more than 80% of tourist arrivals in the past decade. Therefore the usage of these three markets gives a good indication of what is to be expected from the whole market



share regarding the impact of Natalee Holloway incident on the tourism demand.

2.5 Segments in tourism

The tourism industry has been partitioned according to the needs and desires of individuals. Due to the different requirements of vacationers there has been individual markets created that meets all these needs. A list contemplated by Gee & Fayos-Sola (1997) established that there are a total of nine different segments in which tourism is divided: recreational, adventure, cultural, rural, health, new-age, educational and business tourism. However in order to capture the essence of Aruba's tourism only three segments are applicable which are recreational, cultural and adventure tourism. This segment shows off the potential in which Aruba has been able to market and develop it self.

2.6 Conclusion

Tourism is vital for the future economic development of the whole Caribbean region and thus also Aruba. Therefore this thesis research will examine the Natalee Holloway incident and see how it has affected the tourism demand towards Aruba. However before being able to mention something about the impact of Natalee Holloway this section looked at the background information. What is tourism?, can be best defined by using the definition of WTO which also coincides with the definition used by Aruba (Central Bank of Aruba, CBA). The definition according to WTO is *“activities of persons travelling to and staying in places outside their usual environment for not more than one year for leisure, business and other purposes”*. The two main characteristics- which are leaving the usual environment and that a certain period of time should have elapsed- are both met when visiting the island of Aruba. Therefore when vacationing on Aruba a clear form of tourism is achieved.

Given, that changes in tourism demand towards Aruba can be significant for its economy, it would be better to focus on the tourism demand off the inbound (international) tourism group. Since the inbound tourism (tourist arrivals) will be used as indicator to measure the tourism demand. However within this group of inbound tourists there will be a distinction made, only tourists overnighing/staying on the island, will be included. Given that they have weighted all their destinations and still favor Aruba above their other options in spite the happening.

Groups that were excluded from this research are transit visitors, awaiting further connection, commuters (domestic tourism) and cruise visitors. The reason for this is because transit visitors would have little to fear considering that they are not to leave the airports premises and thus have little interaction with the Aruban community and everything that has happened. Commuters and outbound tourism regard the same group which is the Aruban community. There is little reason to believe that after such incident, that they would be more likely to feel insecure and unsafe and thus would contribute less to the tourism industry, e.g. refuse to stay in hotels or take part in touristic activities. Also cruise tourists are excluded due to an inconsistent and faulty data set.

The following chapter will provide an overview of cases which are selected based on characteristics which are also relevant for the Natalee Holloway case.

Chapter 3: Tourism Disaster

Activities and/or events can have an impact on the tourism industry, either in a negative or positive way. E.g. the case of Barcelona, an event as the Summer Olympics helped get the city on the map as a touristic destination (Duran, 2002). Further activities and events were needed to uphold the new reputation, but it was the games that elevated the city's reputation originally.

However there have been events and incidents that have put cities/countries in a negative light and thus harming the tourism image of that area (Albuquerque & Mc Elroy, 1999). Assuming that this could also be the case for Aruba with the disappearance of Natalee Holloway, it would be logical to focus on cases that have experienced a downfall in their tourism industry due to different (negative) events and occurrences. Therefore incidents/events that can have a positive impact on the tourism industry of a country/region will be excluded from this research.

The subsequent paragraph will render a more detailed description of the cases being used in this study and also the basis on which cases are to be selected will be explained further.

3.1. Case studies

Factors used

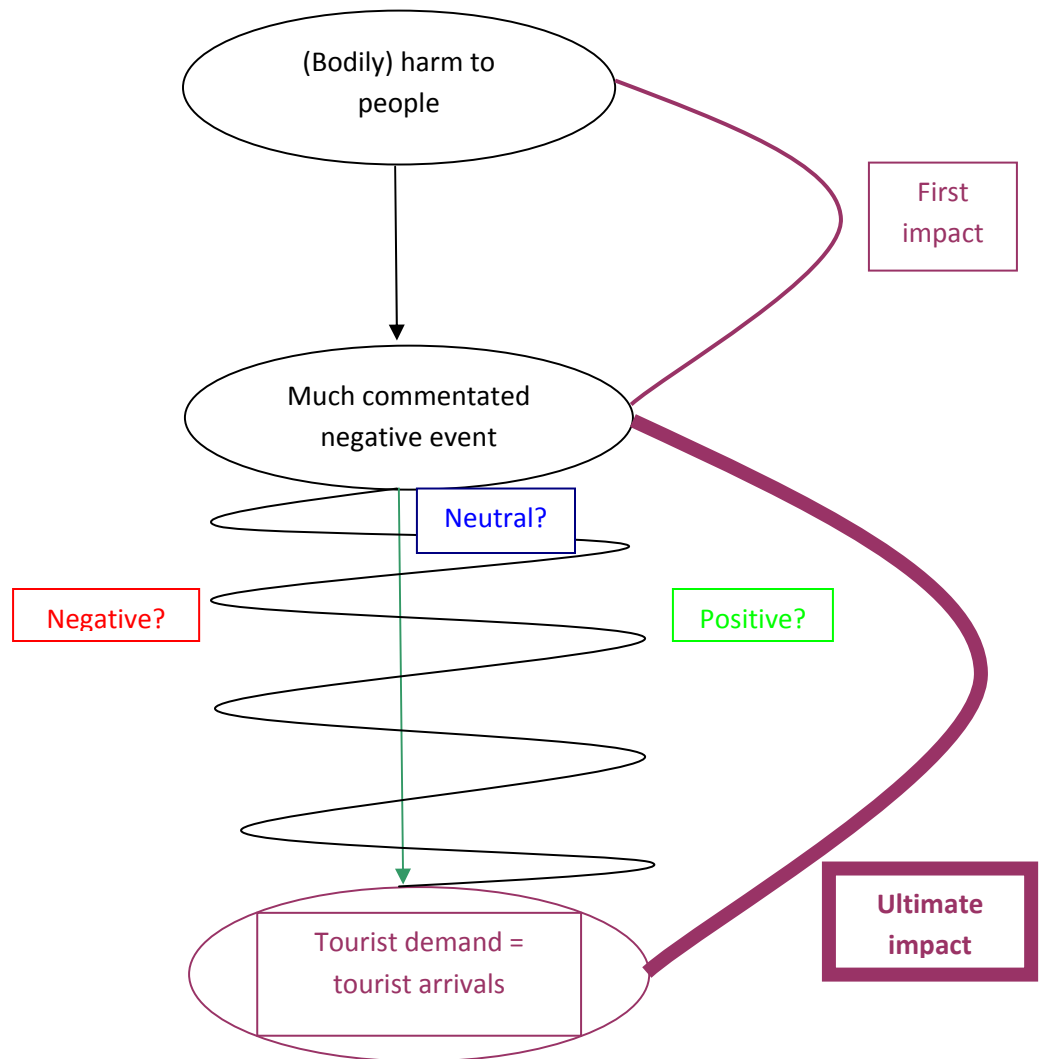
The cases that will be selected are based on their specific characteristics. The first characteristic being that there has been (physical) harm caused to people (visitors) and secondly that it should have been a much commented (negative) event. These two characteristics, depending on gravity and intensity of the incident, can adversely affect the level of business in touristic locations (Ryan, 1992).

Considering that these two characteristics were also relevant for the case of Aruba, it made sense to look up cases that had undergone similar conditions and to monitor their respond, changes in tourism demand, in order to compose a hypothesis based on previews works.

Figure 3 illustrates the criteria's that were applied when choosing the cases. These criteria will be explained further following the graph.

In order to measure the impact, Albuquerque et al. (1999), Pizam (1999) and Sonmez et al. (1998) all use tourist arrival as a measurement factor for the tourist demand. Therefore this factor will be used as the common comparison factor for these cases.

Figure 3: Case illustration



Personal (Bodily) Harm

The most important characteristics of this case study would have to be personal (bodily) harm. This factor is what sets every other effect in motion, in other words it is what initiates this whole process. Due to having an incident happen, it can result in media coverage, which can ultimately lead to causing an impact, or not, on the tourism demand of a country. Every type of event such as petty crimes, burglary, and larceny up to more serious crimes such as rape, murder, terrorist act can start off this whole course of action which can lead to changes in the tourism demand. Pizam (1999) emphasizes the fact that it does not matter who the victims are and what the motives are from the perpetrators but whether or not there is bodily harm or loss of life. This factor is according to Pizam (1999) more influential for the image of a destination

and the possible further impact it can have on the tourist arrivals. The act of causing someone harm is what can ultimately cause change on the tourism demand, not the origin of the victims and the motives behind such acts.

Negative publicity

As aforementioned publicity can be brought on when an incident occurs. That is why it is probable that a missing girl or murder, rape, terrorist attacks and/or natural disasters would more likely to generate (negative) publicity for a region. Bad publicity can damage an image and create a negative perception of a place with as results deteriorating tourism economy (Sonmez, 1998). That is why this criterion should also be met in the case study, considering that it has been an important part in the case of Natalee Holloway. Both criterion are crucial for the selection of cases considering that both (bodily) harm and negative publicity have played an important part in the Aruban case and thus make them decisive factors for the case selection.

Tourist arrival as independent variable

Incident and personal offences are main drivers behind changes in tourism demand. Gang et al. (2005) noted that the most used measure for determining tourism demand was to look for the tourist arrival. That is why considering that this factor is a widely used measurement system, it will also be utilized in this thesis research as the mean to study the cases and to compare the results found. Every case is compared on the basis of tourism demand/tourist arrival, either by numerical interpretation or by clear motivation of authors, and this to produce a coherent result on which the hypothesis can be formulated on.

Case framework

The way the cases will be presented and studied will be as followed. First of all the cases will be categorized according to an event or incident. This will be done in three categories namely, Terrorism, Natural disasters and Murders and Crime. Secondly the cases will be compared to each other within the same category to see if a general answer can be acquired and if not, to see where the differences may lay. This method will be repeated for all three categories. Thirdly the general answer of each category, if possible, will be cross-examined for their similarities and differences. The case review should serve as an indication of what can be expected for the case of Aruba and thus a hypothesis is formulated based on these observations. The hypotheses will then be tested in chapter four. The reason for structuring the cases in this way was to differentiate the responses between the different categories, to see in which aspect they differ and also to be able to see if narrowing it down to more specific cases will give different results when looking at the tourism industry.

What needs to be noted is that it is not assumed that these cases will have similar impacts on the tourism demand; a terrorist act would most definitely have a bigger impact than a murder. However when viewing the bigger picture it may be possible that all three types of incidents

might move in similar directions, which is considering the works of Sonmez et al (1998) towards a declining tourism demand. In addition all three types of incidents possess the two characteristics needed for this case.

3.2. Terrorism

The reasons for engaging in terrorism acts can differ, from a nation's suppression, political instability or trying to bring a message across (Sonmez et al., 1998) but all of these acts are influential for the position of the tourism industry of the concerning region/country.

The fragile state of the tourism industry is apparent when having to deal with the aftermath of terrorism. It can cause tremendous economic impact. E.g. after the attacks on Libya and the targeting of European airports in 1986 an estimated 1.8 million US citizen change their plans for travelling abroad (Richter & Waugh, 1986).

The following section will examine three cases (Munich, 9/11 attacks and Mediterranean Region) that deals with terrorism acts in order to see how they influenced the tourism demand of each individual location.

Case1: Munich and the black September

What should have been an impressive sporting event as the Olympics Games went very wrong. During the Games in 1972 a group 11 Israeli athletes were taken hostage and eventually murdered by Palestinian militant group. This ordeal was orchestrated by Palestinians demanding the release and safe passage to Egypt of 234 Palestinians and Non-Arabs.⁷ Not only was the evident tragic on its own, but the rescues attempt by the government could be categorized as a complete failure which aggravated the situation even more.

Impact of terrorist attack

Even though an estimated 8 million people had watched the event, and were aware of what happened, still no serious and permanent damage was done to the region of Munich. Instead Jasmand and Maening (2007) found that the summer Olympics proved to be beneficial for the Munich because there was more inflow of income and more media attention after the event. Schmid and Degraaf (1982) mentioned that the media attention that was gained during that period helped Munich improve its image and perception. The tourism industry saw a visible increase in both the income and employment of this sector. The event and the attention surrounding it, was able to attract additional international visitors with as consequence increasing the tourist arrival (Jasmand et al, 2007).

⁷

Munich massacre, Available at: http://en.wikipedia.org/wiki/Munich_massacre, 13-12-2008

Reason for change in tourism demand

Albeit the amount of media attention during this occurrence it was not able to damage the tourism demand for this city, in fact people were more attracted to the region after the events. The reason for this unexpected change might have been because the attack was not intended for Munich city itself both was targeting the Israeli athletes. Tourist or potential tourist did not associated such attacks with the location itself but realized it was aimed at a group that might have happened elsewhere also, had the location for the Olympic Games been somewhere else.

Recovery

Even though a terrorist act took place in Munich during the Summer Olympic Games, no harm was caused to the region. Jasmand et al. (2007) showed that the short-, middle-, and long term effect of the Olympics of 1972 for Munich was indeed positive, still they were moderate in growth. For Munich and surrounding regions the proportion of income had in fact increase with 0.02-0.08% immediately after the game, thus creating a better state of welfare for the area compared to the period before.

Case 2: 9/11

One of the most, if not the most, memorable incident took place on 9/11 (Pizam, 2002). Four planes being hijacked which would later on be used as terrorist weapons, two of them were used to bore through the towers of the World Trade Center. While one went through the pentagon and another crash-landed in Pennsylvania. This became one of the most shocking and known incidents in our history. 9/11 did not only stand for fear and anger in the US but it came as a reality check for their homeland security system. This event made them review and revise their security measures.

Impact of terrorist attack

The tourism industry did feel this attack right after it happened. Almost immediately after the incident took place there was a clear downward trend when it came to foreign arrivals and even the domestic traveler's circuit was less prone to move around. From 2001 up to 2004 there were fewer foreign visitors entering the country. With 2001 being the worse off with a decline of 8.40% compared to the year before (Bonham et al., 2006). Table 3 illustrates the impact caused by 9/11 on the tourism sector of the United States. It denotes how both domestic as well as foreigner travelers reacted on this terrorist attack.

Table 3: The Effects of the 9/11 attacks

| Year | Domestic travelers (million) | % Compared to the year before | Foreign visitors (million) | % Compared with the year before |
|------|------------------------------|-------------------------------|----------------------------|---------------------------------|
| 2000 | 1100.8 | - | 51.2 | - |
| 2001 | 1123.1 | 2 | 46.9 | -8.4 |
| 2002 | 1127 | 0.35 | 43.5 | -7.25 |
| 2003 | 1140 | 1.15 | 41.2 | -5.29 |
| 2004 | 163.9 | 2.1 | 46.1 | 11.89 |

Source: Bonham et al. 2006

Reason for change in tourism demand

The most palpable reasons why international visitors were favoring other destinations was because firstly they felt unsafe in the US and they were apprehensive for future attacks. Secondly the ease of travelling and the hospitality of the citizens towards foreign visitors left much to desire and finally other international destination knew how to captivate these visitors (Bonham et al. 2006). All of these reasons made the US a less attractive place to visit after the attack which only aggravated the situation more.

Recovery

As can be seen from the table above it took the USA three years before being able to obtain an upward trend in their international tourism market. In 2004 they were still far from having made a full recovery (Table 1 Appendix). The full recovery state refers to the situation where they should have been at had the attack *not* taken place. According to Bonham (2006) this state of full recovery would not be attained in the near future, because in order for this to happen the growth would have to be unprecedented and no external set back would have to be present which we now know have occurred, e.g. financial crisis.

Case 3: Mediterranean region

The following case will consist of three popular destinations within the Mediterranean region, Turkey, Greece and Israel. Not only are they known for their Mediterranean climate and landscape but they also have their share in history of dealing with terrorist attacks. Turkey has had to deal with several terrorist organizations/groups and terrorism acts lately which have made it a more of a common event. Greece has also recently been the subject of terrorist attacks, with car bombing in Athens, threats with the arrival of Bill Clinton and a McDonald's restaurant being bombed down in the centre of Athens. Lastly, there is Israel which is more familiar with terrorist incidents (Drakos & Kutan, 2003). Drakos et al. (2003) examines the impact of terrorism by looking at the market share and not directly at the tourist arrivals.

Impact of terrorist attack

What became evident was that terrorism has definitely tainted the tourism sector for these three countries. Drakos et al. (2003) shows that not only does the terrorist incidents cause

damages to each country individually but there are also some cross-country visible when something were to happen in Greece and Turkey, with Greece being the most influential of them all. If some terrorist act happened in Greece it would cause the other countries to feel it as well, they would consequently also see a decline in their tourism arrival.

In addition to having cross-country effect there is also substitution effects visible between these three countries, with a much lesser degree towards Israel’s attacks. If something were to happen in either Israel or Turkey it would be to some extent beneficial, with regards to the market share, for Greece. Tourists would be in this case more disposed to see Greece as a potential substitution for Turkey and Israel. However if (big) incidents were to happen on a frequent bases in Greece this would then induce a diminishing market share for the whole Mediterranean region (Drakos et al., 2003).

The study showed that the most susceptible/most sensitive country to attacks, out of the three, would be Greece with a total loss of market share off 9.02% when considering the domestic terrorism of Greece. Low- and medium (0-3 fatal casualties) intensity incidents exert a negative impact on the market share with a one-period lag. Whereas high intensity (>3 fatal casualties) incident exert immediate negative results on the market share. The following table illustrates the impacts on the tourism market share whenever a terrorist attacks occur, either domestically or in other two countries.

Table 4: Regional effects

| Regional effect | Greece | Israel | Turkey |
|---|--------|--------|--------|
| Sum of domestic effects | -9,02 | -0,67 | -5,21 |
| sum of substitution effects (with Greece) | ----- | 0,75 | 2,07 |
| sum of substitution effects (with Israel) | 0,46 | ----- | ns |
| sum of substitution effects (with Turkey) | -2,23 | ns | ----- |

Source Drakos, 2003

The table above gives an indication of the effects that terrorism acts can have on a country and its neighboring countries, whether there is substitution or cross-country effects. What needs to be noted is that these market shares are not specified for a specific year. Drakos et al. (2003) did not mention any time span in which these number were constructed therefore it is assumed that these numbers reflect only on the year (period) directly following the attacks and not further. The drop in market share refers indirectly to tourist arrivals. Whenever there is a change in market share it refers to being (more or less) preferred by tourist. In this case it meant that whenever an incident would happen, tourist would prefer to vacation somewhere else which made the market share drop. This refers to having a less than a proportioned growth

of the tourist arrivals compared to the market share. The tourist arrivals could have declined, stayed the same or even grow but then at a slower rate.

Reason for changes in tourism demand

The change in the tourist demand towards Greece after an attack can be attributed to the fact that tourists do not normally associate Greece with terrorism acts, thus scaring off visitors. Turkey might serve as a substitution for Greece after such incidents. However attacks in Greece should not happen on a regular basis because it may also have a detrimental effect on the tourism demand for the surrounding countries (cross-country effect). The same is applicable for Greece if something would occur in Turkey, tourist would go from Turkey to Greece however this would happen to a lesser extent. Changes in tourism demand for Israel has more of a substitution effect than a cross-country effects since terrorist attacks happen more frequently compared to the other two countries (Drakos et al. 2003).

Recovery

Little has been mentioned about the recovering abilities of these three countries in the examined studies, it is assumed that the numbers above are only viable for the first year immediately following the incident and that the diminishing market share would regain its strength with time. However no time span for recovery has been created for these three countries.

3.2.1 Conclusion on Terrorism

Sonmez et al. (1998) showed that security and safety matters should be seen as a cost that has to be included when people weight their vacation options. Vacationers are likely to be influenced by such incidents and would be somewhat hesitant towards these matters.

Limitations

Considering the small amount of cases it is difficult to obtain a definite conclusion, but there is a noticeable dip in the tourism flow when it comes to location being attacked whereas when specific groups are targeted it might be less influential for the tourism demand. US, Greece, Israel and Turkey all saw a decline in tourist demand in their own area as well in the surrounding area when it came to terrorist act involving a building or a location. However it proved to be different when it came to the killings of athletes in Munich. Even though this was still a terrorism act little damage, if none, was done to the region or country, instead Munich obtained a boost in its international arrivals for the period following the Olympic Games.

Each case measures the impact on different level. 9/11 is measured on a national level, while Munich's case looks only at the city self and its surroundings and finally the last case looks at the impact on a national as well as a regional basis.

The impact of the incident

The magnitude of the impact on the tourism sector was different for every case. First off, the US would deal with a negative growth in their international visitors for up to 3 years and even their domestic travelers became skeptic and were less inclined to go on vacations. The Mediterranean region has also encountered fluctuations in their tourism demand towards the whole region, with Greece being the most volatile and most sensitive to attacks out of the three countries. In this area there is not only a substitution effects, which is normal when a negative incident occurs but there is also a cross-country affect which shifts the tourists demand towards other countries. There is even an abandoning effect for the region as a whole if these terrorist acts were to take place more frequently and specially in Greece. On the other hand there is Munich which became a victim of terrorist attacks and has still managed to come out to this incident better off. Munich saw a growth in their economic and tourism development, however this growth was limited to this region alone (Jasmand et al., 2007).

The reason for the differences in impact for all three cases might be due to different factors. First of all, the attacks of 9/11 and the Mediterranean region were mostly intended to bring a message across; where as the attack in Munich was intended against a specific group. Therefore more people (tourists) might have been scared off since the target group in the Mediterranean region and US was everyone who was at the wrong place at the wrong time and not a specific group as was the case in Munich. Therefore more people might have been scared to visit the US and the Mediterranean region considering that they might have had more chance of becoming random victims compared to the case of Munich where only a certain profile was attacked. In addition the positive impact surrounding the Munich outcome might have been influenced by the positive image and publicity obtained through the hosting of the Olympics Games. These events as mentioned by Duran et al. (2002) create a positive effect for the location. Therefore is might have been the case that the Olympic Games celebration might have clouded the impact of the terrorist attack.

The decline in international as well as domestic visitors in the US might have been influenced by the fact that the attack might have tarnished the security and safety image of the country. The homeland security image of the US had been challenged, making domestic visitors less inclined to move around fearing future attacks. Another reason for a decline in both types of visitors could be because the weapons used in the tourist attacks were airplanes. Airplanes are a much used touristic transport modes which were considered to be fairly safe. However after the hijacking of airplanes tourists were more afraid of this transportation mode which resulted in a decline in international tourist arrivals as well as domestics visitors.

Also time era is a factor which caused differences between the cases. The case of Munich occurred in the 70's; in this period the communication media were in an early stage. News was

not broadcasted globally as it is now and the internet had not been developed yet. Even TV was considered to be luxury good in that period. Therefore the lack of speed and information lead to unawareness under the tourists which caused less impact on the tourism industry. The cases of 9/11 and the Mediterranean took place in another time era were the media had greater influence on society and thus causing more effect on the tourism. In addition terrorism has become a recurring topic nowadays; people are constantly reminded about terrorism acts with as results being more aware of location that might be considered less safe which consequently influences the tourism demand of that location.

Length of the impact

Reproducing a general recovery period for a terrorist attack out of these three cases has proven to be difficult. Not only is there a difference on the level in which they were measured but the studies give contradicting results. E.g. the USA and the Mediterranean did have the expected results, which was to have a decline in their tourism sector (Sonmez, 1999) but the recovery period for both studies were incomplete since in the study of the Mediterranean only looked at the immediate reaction following an attack, while the US was able to see a turnaround in their number of visitors after three years. Munich went the opposite way; Munich had a positive reaction in the amount of international tourism arriving in the short run, with an all-around improved tourism sector on the long term. Table 5 gives a summary of what is mentioned above.

Table 5: Analysis of the cases

| Cases | Sort of tourism | Impact of terrorist act | Reasons/motives for change in tourist rate | Recovery |
|-------------------------|---|--|--|--|
| Black September, Munich | <ul style="list-style-type: none"> • Cultural • Recreational | <ul style="list-style-type: none"> • 8 million viewers, still little damage • Instead, there was an increase in tourist arrival • Even after the games, still a positive image and a better economy | <ul style="list-style-type: none"> • A lot of media-coverage • Little damage because it was not intended for Germany itself but a ethnical terrorist act | <ul style="list-style-type: none"> • Helped attain popularity for in the future |
| United states 9/11 | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural • Health • Business | <ul style="list-style-type: none"> • A in both domestic as well as domestic arrivals • Is still below pre-9/11 standards • Full recovery is still not attained | <ul style="list-style-type: none"> • People felt unsafe • A media-hype • Scared of retaliation • US became less hospitable • Substitution for other countries | <ul style="list-style-type: none"> • An increase in international tourist arrival rate and also domestic travelers • full recovery is still somewhat distant |

| Cases | Sort of tourism | Impact of terrorist act | Reasons/motives for change in tourist rate | Recovery |
|----------------------|---|---|--|--|
| Mediterranean Region | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural • New age → Israel, pilgrimage | <ul style="list-style-type: none"> • Greece would lose most market share, and thus tourists if something were to happen here or in the region • Turkey would be in second place and Israel in third | <ul style="list-style-type: none"> • Greece is seen as a relatively peaceful place, so whenever a terrorist incident happens it shakes everything up • Whenever an incident takes place in Turkey then people would mostly flee to Greece and not Israel • When something were to happen in Israel then this would be beneficial for the other two countries and cause little harm to the region. Because this is more likely to happen here and thus is to be expected | <ul style="list-style-type: none"> • Little is known about their recovery abilities. However the number that has been used is assumed to depict the first reaction, which would only strengthen more with time. |

3.3 Natural Disasters

Natural disasters are characterized by being unpredictable, fast, sweep and leaving behind a devastating aftermath. Earthquake, cyclones and tsunami among others are considered special disasters, seeing that there are only minutes between detection and collision. (Huan, Beaman & Shelby, 2004). Therefore these cases present a view on how the tourism demand had altered after these extreme natural events took place.

The resemblance between these cases and that of Aruba should be based on the fact that it was an incident that inflicted harm on the public and was much publicized in the news. In addition in can give an indication how tourist act when confronted with a negative experience, considering the safe and security features which is also applicable in the case of Aruba.

The following section will observe cases of natural disasters and what their impacts have been on the tourism industry.

Case 1: Taiwan, known as the “21/9”

The central region of Taiwan became the victim of the most violent earthquake of the 20th century, in 1999, measuring 7.3 on the scale of Richter. It killed thousands, destroyed residents, demolished several towns and left people in the dark with no running water. A good deal of the damage was focused around the popular sea-side areas. Besides these areas, there were also theme parks and sightseeing locations which were popular among the tourists that had been destroyed.

Impact of natural disasters

The tourism industry of Taiwan would feel the aftershock of the earthquake almost immediately. According to Hung-Huang et al. (2002) the international tourism sector was shocked and scared of what had just happened. Tourist’s arrival rates had fallen by approximately 15 % immediately after the incident up to December of the same year. Table 6 illustrates the changes on Taiwan’s tourism industry after the earthquake had hit.

Table 6: Impact on Taiwan’s tourism sector

| Impact on Taiwan’s tourism industry (Sept-Dec1999) | |
|---|---|
| Visitors | International visitors arrival down with 15 % Decline of 27% of visitors in major scenic spots |
| Accommodation and cancellation | 60% drop in room occupancy of international visitors 210.000 cancellations |

Source: Hung Huang et al. 2002

Reason for changes in tourism demand

Tourists were also reluctant to return to Taiwan because of the safety issues surrounding the alarm system, just as in the case of Thailand. Even though the system were up to standards visitors still did not feel that they were equipped to inform the public on time were something to happen again. Furthermore visitors scared off aftershocks that might present themselves.

Recovery

Although the impact on Taiwan was considerable, there is still hope for the future. Taiwan has proven to be very resilient; it has managed to come out of this dilemma within a short period of time. Kim et al. (2005) showed that there was indeed a large drop in the monthly tourist arrival immediately after the hurricane took place. However within a period of approximately one year the trend would go back to its original upward course. (Appendix graph 2)

The quick recovery of Taiwan can be accounted to the fast and thorough political intervention. Furthermore there was a major focus on marketing and add campaigns in order to attract tourists and also the fact that people intend to forget fast help benefit the whole situation (Hung Huang, 2002).

Case 2: Andaman Coast

On 26th of December 2004, the world was shocked once more by the tsunami that had crashed ashore on the Andaman coast. In total 5.395 lives were lost with nearly half of them to foreign visitors (Bongkosh Ngamsom, 2006).

Impact of natural disaster

The impact was visible as soon as January 2005, the occupancy rate in the affected area had seen a drop of 10% (Bongkosh, 2006). The holiday bookings for the Chinese New Year were down by 70%. The differences with the previous year were considerable. Table 7 illustrates how the Andaman's coast was affected and how the tourism demand changed after the incident took place.

Table 7: Impact on Thailand's tourism sector

| Impact on Thailand | | |
|--|--|--|
| Tourist | Changes | Motive |
| Domestic tourist | A drop of tourist arrival of 50% in the first six months | Afraid to encounter dead spirits |
| International tourist | A significant amount of tourist preferred staying in other areas | Afraid of an aftershock plus no completed warning system |
| Occupancy rate in Tsunami affected areas | Dropped to 10% in the first two months | Issued advisory warnings by countries |
| Holiday booking Chinese new year | Dropped with 70% compared with the prior year | Afraid to encounter dead spirits |

Source: Bongkosh 2006

Reason for change in the tourism demand

The change in tourism demand was due to two factors, first of all a great number of domestic visitors were afraid of the dead spirits who had perished in the tsunami. Their fear of having to encounter a dead spirit would lead them to change their vacation destination. In addition international as well as domestic tourists were fearful of an inadequate alarm system for future disasters. They were concerned that it would not work properly or according to standards.

Recovery

Even though the aftermath of the tsunami was still felt by some hotels and touristic businesses in 2006, rebuilding has been taking place. Some areas have been able to restore faster and improve their situation, e.g. Phuket and Phakon, whereas Phi Phi and Khao Lak have failed in doing so. Phuket was able to reach its pre-tsunami level after merely one year, with having hotels being overbooked (Bongkosh, 2006). However much has been done to relieve the economical tension. The government created rigorous marketing campaigns and advertising stunts which have proven to be successful. Furthermore in order to deal with the local superstitions, the government has performed cleansing rituals in order to bring peace of mind to the potential domestic visitors fearing encounters with dead spirits.

The rigorous marketing and advertising attempt proved to be fruitful in bringing back tourists. Immediately after it happened the government works closely with tourism organizations with as aim to rebuild their image and maintain their current tourism inflow.

The swift course of action by the government and touristic institutions, in combination with the amount of advertising made it possible to rebuild and recover at such a fast pace.

Case3: New Orleans & Hurricane Katharina

What started off as a tropical depression on August 23, 2005 turned out to be one of the deadliest hurricanes in the history of the United States. It caused severe damage all along its pathway from Florida up to Texas but out of all of these areas it was New Orleans within the Louisiana state that had encountered the most destruction and loss of life (Dolfman et al. 2007). The impact of this episode reached epic proportion not only because of the hurricane self but on top of that the flooding system of New Orleans failed to work properly, 80% of the city was flooded.

Impacts of natural disasters

According to Dolfman et al. (2007) the tourism sector had taken a serious beating after Katharina. The tourism sector experienced the largest job loss in the first 10 months after it happened, with an all time record of 25.4% of job losses. In addition to this they lost a significant amount of potential visitors. Table 8 illustrates numerically the impact that hurricane Katharina had on Louisiana and region, according to the research center of Cunningham⁸. New Orleans is the largest city within the state of Louisiana; therefore the data of Louisiana is also appropriate for the case of New Orleans since it is agglomerated for the whole state.

However what needs to be noted is that due to the lack of data available, it was necessary to look at the amount of visitors in this case and not to tourists as is done for all other cases.

⁸ <http://www.crgglobalinc.com/release.html>, Study of 2005 Hurricane season and impacts on tourism, accessed in February 2009

Table 8: impact of Katharina

| Impact of hurricane Katharina | |
|---|--|
| Change of interest for an area | <p>21 % of visitors who intended to visit the South/Southeastern region were less interested after Katharina hit.</p> <p>30% of visitors were less interested in visiting the states which were within Katharina’s path.</p> |
| Change of interest in sightseeing venues | <p>20% of visitors are less interested in beachside activities after Katharina</p> <p>14% of visitors are now more interested in historical venues considering they were left untouched by Katharina</p> |
| Potential loss | <p>29% of visitors are less willing to visit the coastal area during hurricane season</p> <p>39% of visitors who were in the procedure to plan a trip have not been able to make a decision</p> |
| Definite loss | <p>6% of visitors have cancelled their trip</p> |

Source: Cunningham research group

Even after Katharina had dissipated, the impact was still felt with an \$18.3 billion bill for rebuilding (Pizam, 2005). With a potential lost of 29% of visitors not opting to come anymore during the hurricane season and with 6% of visitors actually cancelling the trip after this natural disasters (Cunningham, research group).

Reason for change in tourism demand

The tourism industry had been beaten badly by Katharina, visitors were hesitant to visit the area not only because they were afraid that during the hurricane period more hurricane would formed but also the main touristic venues, which were beach areas, were destroyed by Katharina. This made it less attractive to visit these locations with as result declining tourism demand in the recreational tourism sector.

Recovery

Following Katharina, the attention of visitors was diverted towards historical venues instead of the sun and shoreline vacation spots. This because, much of the historical sites where left unharmed and intact, because they were not in the path of the hurricane. As a result of this New Orleans was able to attract new kinds of tourist which were more interested in the historical and cultural aspect of a city (Cultural Tourism). However New Orleans still struggles today with the rebuilding of the rest of the city. Due to limited financial resources made

available and interruption in the re-building process has made it more difficult to finish the job (Comfort, 2006).

3.3.1 Conclusion on Natural disasters

Even though most natural disasters happen quickly and with little time for warning and/or preparation, the locations that do experience them are still confronted with safety and security issues which can ultimately influence the travel decisions of tourists, according to Sonmez et al (1998). The case study of these three places illustrates this fact. These locations were abandoned after the incidents took place because the lack of security and danger that such location possessed, or was perceived to have. This factor made the visitor reconsider their vacation alternatives.

Impact of natural disasters

Thailand has been able to make a semi-recovery, this because not all affected areas were attended as fast as they should have been. Areas that received more government support and help have been able to reach their standard level after about one year, the other areas that were less privileged were left in a worse state, with a slower recovery process. Taiwan has also proven to be resilient just like Thailand. Taiwan went from having its tourism industry collapsing immediately after the earthquakes, to practically reaching a full recovery in just about more than a year.

However out of all of these three natural disasters Katharina has proven to be the worst off when it came to the recovery process. New Orleans was not able to recover as fast as the other two countries. According to news report Katharina's aftermath is still visible three years after it happened.⁹ There is still a lot of debris and broken-down building in the most affected areas. According to Dolfman et al. (2007) New Orleans was, before Katharina hit, for a great part dependent on the tourism industry but considering that the waterfront, which was badly damaged, there was a switch towards other areas which were left unharmed. E.g. the monument and historical sites are now becoming a greater attraction and other economic activities were further developed such as Port.

Length of the impact

Both Thailand and Taiwan were able to recapture the greater majority of their original markets back within a short period of time (approximately one year). The reason for the lack of speediness of recovery process of Katharina can be attributed to human negligence for not attending to the levees which only worsened the situation even more after they had been

⁹ <http://www.voanews.com/english/archive/2008-12/2008-12-26-voa26.cfm?CFID=119201031&CFTOKEN=13907511&jsessionid=843043a8e1ca7c63a72753d39605f644687f>
accessed 15 February 2009

breached (Comfort, 2006). Manmade mistakes had thus a negatively role in the recovery process of New Orleans, which was not applicable in the other countries. The limited public funding also contributed to the slow recovery of New Orleans.¹⁰ Lastly, the second hurricane, Rita, also influenced the recovery process even more. All these setbacks are clear indications why the recuperation of New Orleans was so long.

In addition a crucial aspect of the recovery process can be associated with government involvement. There appears to be a positive relation between the active role of the government and a speedy recovery. So, the degree of success to a speedy recover is dependent on the government support and funding. In the case of New Orleans the limited government support is might be of the reasons for the slowly recuperation process. In addition, the marketing and promotional campaigns which were initiated in combination with the government helped increase and boost the names of the affected areas and country.

Even though all three places had similar touristic segments, it would be better to compare that of Taiwan and Thailand considering that they are somewhat more dependent on the tourism industry. These two regions were focused on touristic activities, whereas New Orleans also specialized in education services and port activities as well (Dolfman et al., 2007). As a result hereof one might assume that the sense of urgency lay on the fact that these regions were relying on the touristic flow in the areas whereas New Orleans had other segments which could be used for surviving. Thus, the necessity and the urgency to recover were more important for Taiwan and Thailand than in the case of New Orleans. Dolfman et al. (2007) showed that there was a visible shift between sectors after Katharina. This left the tourism industry slacking behind and thus making it more difficult to catch up compared to the other two countries.

An overview of the cases is depicted in table 9.

¹⁰ http://www.usatoday.com/news/nation/2007-08-28-rebuild_N.htm, accessed 16 February 2009

Table 9: Analysis of the cases

| | Sort of tourism | Impact of natural disaster | Reason/motive for change in tourist arrival | Recovery |
|-------------------------|---|--|--|---|
| Taiwan | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural | <ul style="list-style-type: none"> • International visitors declined with 15% the first three months • A drop of 27% in mayor scenic spots • Flight and hotel bookings were lower | <ul style="list-style-type: none"> • Safety and security issues • Fear of aftershocks | <ul style="list-style-type: none"> • Little over a year the tourist arrival had normalized back to the old trend • Government intervention proved to be beneficial • Rigorous marketing strategies |
| Thailand | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural | <ul style="list-style-type: none"> • Domestic tourist arrival dropped with 50% few months • International arrivals dropped significantly | <ul style="list-style-type: none"> • Domestic travelers were afraid for dead spirits • Safety and security was the main motives | <ul style="list-style-type: none"> • Some places where able to recover more quickly than others • Due to marketing and government intervention and relief of local superstition it will be able to recover. |
| Katharina & New Orleans | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural • Business | <ul style="list-style-type: none"> • 21 % of interested tourist are now less willing to visit • 29 % would not go in hurricane season | <ul style="list-style-type: none"> • The most popular cities were also the most affected by Katharina are very much dependent on the tourism industry (Pizam, 2005) | <ul style="list-style-type: none"> • The historical sights have been flourishing now instead of the waterfront • Switch from recreational & cultural towards more cultural tourism market |

| | | | | |
|--|--|---|--|---|
| | | <ul style="list-style-type: none"> • 31% are less interested in the places Katharina hit • 6 % have annulled their trips • Making 80% of the levees overflow with as result flooding of New Orleans¹¹ | | <ul style="list-style-type: none"> • Clean up has been delayed repeatedly¹² |
|--|--|---|--|---|

The following chapter will look at cases that are characterized as crimes and murders. As was done with this chapter and the previous one, the focus will be to measure how the tourism demand reacted upon these incidents.

¹¹ Comfort, L. (2006)

¹² Comfort, L. (2006)

3.4 Murders & Crimes

An area with a booming (tourism) economy can easily attract wrongdoers because visitors are considered as easy preys or just like terrorism they can be used to get their message across (Kathrada, Burger & Dohnal, 1999). This chapter will look at cases that have dealt with either murder or (violent) crimes and also have been put in the limelight by the media.

The first two cases will look for a relationship between crime and tourism with a (fairly) large state, whereas the last three cases will be concentrated in the Caribbean region. This will be done as a mean to examine possible differences and/or relations that might come forward between these two groups and with the Aruba Case.

These cases just as the previous cases are selected based on the two criteria's, however they come closer to the Natalee Holloway case considering both characteristics are strongly represented back in all these cases and may also provide a better indication for the tourism demand.

The last three cases will encompass the Caribbean area which would be more relevant for the case of Aruba. In addition the focus on the Caribbean area would give a better insight on what should be expected considering the resemblances and dependencies of the tourism market.

Focus on large areas

Case1: New Orleans a.k.a. the Big Easy

As famous as New Orleans is for its riverboats, French Quarter, Mardi grass festivities and super bowl, as infamous it is for its high crime rates. This case will not cover one specific episode but it will look at the impact on the tourism market that these extremely high crime rates have caused for this city. According to both the Guardian and the Associated Content, they both remark that New Orleans has had the highest murder rate per capital in the United States for the years of 2006 and 2007¹³. It has exceeded eight times the national average murder rate and five times that of NYC, which made New Orleans one of the deathliest city in the US (Dimanche & Lepetic, 1999). Bear in mind that this case will be based on the paper of Dimanche et al. (1999) which focuses on the last decennium of the 20th century, before Katharina took place.

New Orleans has had a booming tourism industry the last few years, with the constructions of accommodation centers and also employing more than 16% of the cities' workers. However it has also encounter high level of murder rates. Even though tourists are rarely in the surroundings where the killings and crime take place, they have become victims on occasions

¹³ http://www.associatedcontent.com/article/141901/new_orleans_murder_rate_skyrockets.html, accessed 15 february 2009
<http://www.guardian.co.uk/world/2007/nov/06/usa>, accessed 15 february 2009

(Dolfman et al., 2007). In addition to this, the killings are normally very much commented on in the local daily news paper and in the evening news. As a consequence this has sparked insecurity and awareness of safety among the residents and tourists, however to a lesser extent for the last group due little airtime in international news.

Impacts of crimes and murders

Despite the fact that negative perception or images could significantly influence the success of the tourism sector; this has not been entirely the case for New Orleans because the bad perception of the city has been confined to mostly the residents. There has been little mentioning of this problem internationally before the end of the 20th century.

The inadequate legal system and the high crime rate have only worsened after Katharina. The guardian reported that after Katharina the amount of released criminals increased by five-six folds, this in relation with Article 701, code of criminal procedures, which made it possible for criminals to be back on the streets within days with the smallest chance of further prosecution¹⁴. However there is no literature available discussing the crime rate of New Orleans for the last few years and also after Katharina hit.

Reason for changes in tourism demand

Since the news has been confined to the local media station and little has been commented internationally, there is a smaller group which has been confronted with the incidents in New Orleans. In addition tour operators and marketers have been able to emphasize the positive and attractive attractions of New Orleans with as results compensating the negative image of New Orleans; this strategy has proven to be successful considering that the tourism revenue and arrivals rates have remained the same. The response towards crime and murders in New Orleans are considered to be positive because New Orleans has been able to maintain about the same tourist arrival numbers and about the same tourism revenue (Dimanche et al. 1999). The amount of promotions and campaign has been able to equalize the problem and create a constant inflow of tourists.

The changes in tourism demand after hurricane Katharina is not known since there have been no research done on this subject. However one can speculate that after Katharina it would be less attractive for visitors considering that there is still a lot of debris and as mentioned above there is now a deteriorating judicial system which would make New Orleans less safe to visit.

¹⁴ <http://www.guardian.co.uk/world/2007/nov/06/usa>, accessed 17 February 2009

Recovery

Considering that before Katharina hit New Orleans had not really felt the negative impact from the increasing high crimes because they were able to maintain their tourism revenue and arrivals about the same with the help of promotions and advertisings.

However after Katharina this might all change considering that criminals were being released extremely fast or not even trailed, which left them back on the streets to further increase the crime rates. With the combination of Katharina, the slow rebuilding efforts and the increasing crime rates might just turn out to be detrimental for the tourism industry of New Orleans.

Case 2: Miami, Florida

The sunshine state, the orange state or the lighting state are known appellations for Miami, so when Miami was compared to a third world country referring to as having the most armed citizen, it came as a cold shower (Tilson et al. 1997). The murder rates had been so high at times that it was crowned the deathliest city in the 1990's, just as New Orleans in 2006 & 2007. This case study will focus primarily on the crimes and murders that took place in 1992 and 1993 which made instant headline considering that it involved violent and brutal murder against out-of-stators (Tilson & Stacks, 1997). Following the fall of 1992 there was a killing spree of 10 international visitors until the end of 1993, this unleashed a media fury, protest and backlash of government and law institutions, generating much media attention.

Impact of crimes and murders

The impact of the amount of media attention surrounding these murder cases became evident in the fall of 1993-1994. The amount of tourist coming to the state of Florida fallen in the first months of 1994 with 4.2 % when compared to the previous year. The table 10 will reproduce the impact of the crimes and murders committed in 1992 and 1993 on the tourism industry of Florida and Miami.

Table 10: Impact of Miami

| Impact of Crimes and Murder in Florida/Miami | | |
|--|----------------|---|
| Florida | 1993 | Leading crime state in the USA |
| | 1994 | Drop of 4.2% in number of visitors 89% of Britons planned to not visit Florida 93% of Germans planned to not visit Florida |
| Miami | 1993 | 20% of Companies were planning to move out of Miami 53% Drop in crime against tourist (April to November) |
| | 1993 | Leading crime city in the state of Florida |
| | Jan-April 1994 | Drop of 20.6% of in the German Tourist market Drop of 23.5% in the British Tourist market |
| | 1994 | Drop of 70% in crime against tourist compared to 93 |
| South Florida | 1994 | 66% of the South Floridians find that the local news pays too much attention to crime and murder 69% Thinks this contributes to a fearful sphere |

Source: Tilson et al. 1997

However, contradicting evidence came from the Florida Department of Law Enforcement. According to the table above it is apparent that after these incidents happened there was a decrease in tourism demand coming from e.g. the German and British market; however the Law Enforcement Department showed that in 1993 there was a decline of 53% in crimes in Miami which were committed towards tourists.

Reason for change in tourism demand

The inconsistency between reality and the perception of the safety regarding tourists in Miami can be possibly attributed to media attention covering this area. The amount of media attention surrounding the killing spree could be a motive for why tourists were not choosing Florida/Miami as their vacation destination anymore. As can be seen in the table a majority of the residents did also agree with this point of view, the excessive news report around crimes and murder helps in their opinion generate and further fortify the fear of these crimes in this area.

Recovery

In order to alter the created perception, the government and law system made successful alteration in their way of monitoring and protecting the tourists. Advertising and public relation campaigns became the main priority for different institutions in the whole of Florida. In addition according to a study made by Miami School of Communication, local media station and daily newspaper were devoting less airtime to such incidents (Tilson et al. 1997). The results of all these efforts became visible by the end of 1995. The whole state of Florida saw an increase in the number of visitors (3.5%), not only for domestic visitors but also the international visitors were choosing Florida more often as a vacation spot. Especially the Britain and the Germans that were considered the biggest group to have been lost by the murdering spree made also a big rebound (Tilson et al. 1997). The turn around came in 1995 for Miami in which it see an increase in the number of visitors, they manage to attract a total of 9.4 million tourist. The region also experienced a growth in international visitors with the most dramatic growth coming from the European tourists. This whole trend continued in 1996 and had managed to get further promotion for the first time ever from the Michelin tourist guide organization (Tilson et al. 1997).

3.4.1 Conclusion on Larger areas

Cities within the US

These two cases were chosen based of the facts that they met both criteria, which was the media attention as well as the personal harm criteria, in addition they are particularly similar to one another due to the fact that they are both located in the US and both have high rates of crime and murders thus making them better comparable. Both states showed that even though there was a negative image and perception of the city it had not disrupted the tourism industry entirely; both states were able to revive and counterattack the negative perception through advertisement and governmental actions on their own pace. However the differences in impact were still noticeable.

First of all, the people being victimized in Miami regarded tourist while in New Orleans it is was mostly locals who became victims. Therefore tourists were more apprehensive to visit Miami since they fitted the victim profile better and thus had a bigger chance to become victims themselves. Another reason why there may have been a decline in visitors in Miami may be because tourists visiting Miami normally go on a family vacation in order to visit e.g. Disney and other theme parks in Orlando and as such involve people how are risk averse, given that their safety comes first. This group would be more susceptible for these events (crimes and murders) and therefore safety and security would form an important part for their decision making process. On the other hand, tourists going to New Orleans normally involved a younger crowd

wanting to have fun and thus being more of a risk taker and are thus less affected by the media attention of crimes.

Formulating a single recovery period for these two cities was not possible, due to the fact that New Orleans did not suffer from a declining tourism sector whereas Miami did. New Orleans was able to retain its tourism demand by generating more campaign which attracted tourist. In addition New Orleans was not a city where *tourists* were being confronted with crimes and murders, they might have been victimized on occasions but not on a regular basis as was the case in Miami. It is for this reason that Miami took about three years in order to see an improvement in number of tourist arrivals on a state level and as well for Miami, with a 7% tourism growth in Miami in 1995 (Tilson et al. 1997). An overview of what is discussed above can be found in table 11.

Table 11: Analysis of the cases

| | Sort of tourism | Impact of natural disaster | Reason/motive for change in tourist arrival | Recovery |
|----------------|---|--|--|--|
| New Orleans | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural | <ul style="list-style-type: none"> • A limited impact on the tourist arrivals and revenue • The reductions/fluctuations in the tourists arrival was limited | <ul style="list-style-type: none"> • The limited change was due to promotions and advertisements • Emphasizing of more positive aspects of new Orleans • Limited publication beyond city/state border | <ul style="list-style-type: none"> • To maintain the current tourism market promotions will be further emphasized. • However this strategy might be only for a short period of time. |
| Miami, Florida | <ul style="list-style-type: none"> • Recreational • Adventure | <ul style="list-style-type: none"> • As well as the state as the city of Miami was affected, both saw a decline in their tourism arrivals and revenue • Contemplating of businesses leaving Miami area due to crimes levels • Till 1994 the impact was still felt | <ul style="list-style-type: none"> • Media-hype after the killing spree of the international visitors made (potential) visitors) more aware of the crime levels. With as results less willing to visit the area | <ul style="list-style-type: none"> • Recovery became noticeable in 1995 • The improvement was due to measurements taken by governments and touristic intuitions , to improve visitors security |

| | | | | |
|--|--|--|--|--|
| | | | | <ul style="list-style-type: none">• Rigorous marketing attempts put Miami back on the map.• Less airtime devoted to crimes help improve the image |
|--|--|--|--|--|

Focus on the Caribbean

In order to come closer to the case of Aruba there will be Caribbean islands incorporated in this study. This will be done in order to see what kind of affects these events had on the islands tourism market and thus see what could be expected for the case of Aruba.

Case1: Saint Croix

Saint Croix was known just as many other Caribbean islands for its irreproducible beaches, sea and lifestyle until September of 1972. This year would be classified as the year their downfall commenced. The incident included six assailants entering the Fountain Valley clubhouse fully armed, where they proceeded to rob the tourists and employees while cleaning out the cash register. Before fleeing the site they manage to kill eight people, among them tourists, and left many others wounded behind (Johnny & Jordan, 2007). The news of the killings made instant news in the US. The media focused on this event raised a lot of racial issues ad discussions. (Albuquerque et al. 1999)

Impact of the Crimes and Murders

The incident in Saint Croix became the center attention, becoming one of the most publicized killings in the Caribbean (Albuquerque, 1999). USA picked it up almost immediately running it on US TV stations and newspapers, considering that it formed part of the US Virgin Islands. All these media hype raised racial concerns in St. Croix. All this media attention lead to a high influx of cancellations for the island and also there were travel advisory issued, warning tourist to be cautious.

Reason for change in tourism demand

Even though there is not a detailed mentioning the problem in the literature one may assume that it did have a great impact on the island tourism taking into consideration that it took about ten years to recover (Albuquerque, 1999). Considering that this incident was the first to take place in the islands history which has been publicized so thoroughly. It disrupted the peaceful picture visitors had from this destination, causing tourists to leaving or chooses to not come back. Secondly the racial discussion after this incident might also be the reason why people feared Saint Croix.

Recovery

Saint Croix has managed to recover and come out of this dip; the only obstacle was that it took almost a decade to do this and lots of promotional stunts to pull it off (Albuquerque, 1999). Albuquerque et al. (1999a, b) concluded that it took them almost ten years to attain the pre-Fountain Valley levels when it came to the tourist revenue and arrivals, making this the slowest recovering incident in this case study.

Case2: Jamaica

Famous for its music talents, its relaxed Caribbean lifestyle, clear blue sky and sand it has become a famous vacation destination within the Caribbean region. As with the rise of the tourism industry came also the rise in crime incidents. Just as the previous case this case study will not focus merely on one event but it will provide a general picture of crimes that have occurred in Jamaica and the impact thereof on its tourism industry.

Impact of crimes and murders

According to Harriot (2000) the Caribbean region is very susceptible to (violent) crimes. Jamaica makes no exception to this, it is considered as the most problematic island within the Caribbean region and also the first to have dealt with crimes committed against tourist (Albuquerque, 1998). The perception of high level of crimes and violence has been found to be affecting the tourism industry of the country (Dunn and Dunn, 1994b). Dunn et al. (1994b) mentioned that the Caribbean region is very much vulnerable to crimes and that the origin of these crimes laid with the opportunity brought on by the growth in the tourism development.

Even though Jamaica is perceived to be violent, has had a high crime rate and travel advisories issued against it, it has still managed to perform fairly well considering these circumstances (Boxill & Alleyne, 2003). According to Boxill et al. (2003) the increasing crime rate has indeed started to affect the tourist arrivals, however this decline is still very limited which is why it is still possible to say that they are still doing well.

Reason for changes in tourism demand

As mentioned above the decline in the tourist arrivals of Jamaica considering the increasing crime rate, has been moderate. The increasing crime rate has affected the European tourist market more than the other markets (Boxill et al. 2003). The reason for this could be that the European tourists make less use of all-inclusive packages which makes them more prone to be victimized due to increased contact/interaction with the Jamaican population.

The rest of the tourism markets, which vacation on Jamaica, are for this very same reason less affected by the crime rates. These tourists are more likely to stay within their hotels, given they have an all-inclusive package and thus lowering the necessity to leave these well-guarded and supervised areas.

Recovery

This modest decline in tourist arrivals is accomplished by a mixture of different factors. First of all being that the group visiting the island had succumb to an all-inclusive package vacation style which meant less interaction and involvement with the locals, with as result being less easily victimized. This enclave kind of vacation has become a known sight in Jamaica (Albuquerque et al. 1999) however it can only provide a short term of protection for the tourists. In addition the amount of promotions and marketing ads that were concentrated on

further developing this all-inclusive lifestyle proved to be beneficial. The increase of advertising and promotion in combination with the growth of all-inclusive hotels is what helped Jamaica maintain its current tourism demand roughly the same.

However one might speculate about the future of Jamaica, seeing that the enclave type of vacation could only be a short term solution. In time the Jamaican population would only feel more suppressed by these actions and would rebel even more. In addition the sight of security guards and fences surrounding the hotel premises can have a diluting effect on the whole experience with as ultimate result change towards other vacation possibilities.

Case3: Saint Lucia

Being among the top 20 world's destination and obtaining the title as being the world's leading wedding location has definitely demonstrated the virility of this island. It has been considered to be carefree and safe among the Caribbean. However this wholesome and peaceful image might be running the risk to be tainted by the increasing crime rate in the last few years (Johnny et al. 2007). This case will focus on a time span that was characterized by high crime level. It does not concentrate on one particular incident that took place.

Impact of crime and murders

The study of Jordan & Johnny (2007) concentrated on the period 1996-2004; they studied the rising crime rates. The rise in crime was combined with more brutal/violent types of crimes which were becoming more directed towards tourists. Even though it had not reached an alarming state, it became the main concern of the island

Jordan et al. (2007) concluded that even though frequent crime rate could have a negative impact on the image of the island with as ultimate result declining tourists arrivals, this has not been the case for Saint Lucia. The frequency of crimes committed on the island has had little influence on the tourist arrival. It has proven to be not significant for determining the amount of tourist visiting Saint Lucia.

Reason for change in tourism demand

That the frequency in which crimes happen can be insignificant for tourist arrivals could be due to the fact that tourists are less likely to be victimized than the residents of Saint Lucia. In addition they are more likely to become victims of property related crimes instead of violent crimes. It is the residents of Saint Lucia, who have a higher chance of becoming victims of more brutal types of crimes. Therefore it is less likely to have international news covering petty crimes happening to tourists (Jordan et al. 2007).

Recovery

The frequency in which the crimes were taking place was not causing a decline in their amount of tourist arrivals. However in order to prevent this from happening there have been numerous

precautions taken. The government as well as different tourism institutions has come up with a few measures which would ensure a safer stay on the island for tourists (Johnny et al. 2007).

3.4.2. Conclusion for the Caribbean

Impact of crimes and murders for the islands

Saint Lucia, Jamaica and Saint Croix would be the best order in which to rank these islands when observing for the significance between crime and tourists arrivals. Saint Lucia has proven to be very resilient when it comes to crimes. Jamaica has managed to maintain its tourist arrival equal even with soaring crime rates. Out of these three islands it appears that Saint Croix has had the worst experienced, seeing that it had a crumbling tourism demand for almost 10 years. The reason why this had such a devastating blow to its economy might be due to the fact that it was the first publicized incident that was so negatively portrayed and also the amount of attention devoted to the case was unprecedented. Another reason for having gone through such a negative experience might have because of the racial tension that was building up on the island of St. Croix. Tourists might have been scared off by the fact that their skin color might make them into victims, considering that the Fountain valley Massacre had racial motives. These racial issues were not applicable for Jamaica and St. Lucia. The crimes that were committed in Jamaica and St. Lucia had other motives; they were done out of financial necessities and as such come closer to reality and acceptance of tourists.

The only case that stood out, in a negative way, in this whole case review is the one from Saint Croix, which needed 10 years to recover. The other islands managed to combat the problem (Jamaica) or try to stop it before it even started (St. Lucia). The reason why St. Croix was so devastated by this incident for so long might have been due to a combination of factors that did not play a role for the other islands, e.g. the amount of media attention, the brutal way in which it occurred, the racial motives that might have been involved in the killings but it could also come from the fact that it was the first incident for that period to take place that was so talked about. This incident might have just been able to disrupt the wholesome and safe image of the upcoming island which made the demise so much striking. A summary is provided in table 12.

Table 12: Analysis of cases

| | Sort of tourism | Impact of natural disaster | Reason/motive for change in tourist arrival | Recovery |
|-------------|---|---|--|--|
| Saint Croix | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural | <ul style="list-style-type: none"> • First major publicized event in its history • Decline in tourist arrivals • 10 years to recover → come back to its original state | <ul style="list-style-type: none"> • Media hype might have caused that that tourist felt unsafe and would eventually leave (speculation since there is little about Saint Croix in the literature) • Also possible Racial issues might have scared tourists away | <ul style="list-style-type: none"> • Slowest recovery of all the cases • Took 10 years to bounce back |
| Jamaica | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural <p style="text-align: center;">↓</p> <p style="text-align: center;">Music</p> | <ul style="list-style-type: none"> • Jamaica was the first island having been reported by for its crime against tourists • Crimes against tourists gave Jamaica a negative image • These crimes caused | <ul style="list-style-type: none"> • The modest decline can be attributed by the high levels of marketing and promotions as a mean to combat the problem • The European tourists were more reluctant to visit the island, considering | <ul style="list-style-type: none"> • In order to maintain this tourist demand a lot of all-inclusive packages, deals and resorts should be created • More security guards should prevent crimes for tourists |

| | | | | |
|-------------|--|--|---|---|
| | | a slight decrease in the tourists arrivals for Jamaica | <p>the lack of usage of all-inclusive deals</p> <ul style="list-style-type: none"> • Other markets were less affected due to the all-inclusive packages | |
| Saint Lucia | <ul style="list-style-type: none"> • Recreational • Adventure • Cultural <p style="text-align: center;">⋮ ▼</p> <p style="text-align: center;">Weddings</p> | <ul style="list-style-type: none"> • Frequent crime rates which have become more brutal over time has not affected the amount of tourists arriving • There is no reason to believe that it would affect the tourism demand considering the study performed | <ul style="list-style-type: none"> • That tourists arrival is not affected by the frequent crime rates can be accredited to the fact that they are mostly victims of petty personal crimes which are less violent • In addition tourists run a lower chance of becoming victims compared to residents | <ul style="list-style-type: none"> • In order to retain the current positive state for tourists arrivals some safety measurements have been taken by the government and tourism organization |

The following chapter will try to find what kind of similarities/ relations there are between the different types of events, if any. This in order to see if certain outcomes are only to certain types of incidents or if they can be generalized for all negative incidents (personal harm)

3.5 Comparison between cases and Conclusions

The purpose of the previous cases is to help formulate a hypothesis for Aruba's case based on the outcomes of these cases. However, as stated before the magnitude of the impact of each type of incident is not what is being compared in this review but it focuses on what is to be expected from the tourism demand whenever they experience a negative event with lots of media coverage. Based on this, it was thought that it would be relevant to look at these different types of cases and see how the tourism demand reacted upon them in order to give a better indication for the expectations.

The reaction of the tourism demand upon negative impacts

What do terrorism, natural disasters, crimes and murders all have in common? All three types of incidents/events can inflict fear into people, giving them a sense of insecurity and reducing the tourism demand for the affected location. Even though the impact of each type of incident is not easily comparable with another form, they are still able to reproduce a general outcome which is a diminishing tourism demand for that area. All three types of incidents are able to indicate which way the tourism demand will shift after having experienced a negative after a much commented incident. The cases reviewed focused specifically on changes that might have been induced by the negative nature of the event in combination with media attention. It indicates the time span in which the impacts were felt on the tourist arrivals (tourism demand), bearing in mind the available information utilized. In addition it also mentions the counterattack measures that were put in place in order to reverse the (possible) negative effect that might have been formed.

It is assumed that the media criterion is met due to having chosen well-known (infamous) events. There have been no records found on how much media attention is given to each case, with the exception of Google search engine, however this is omitted due the difficulty that can arise when looking for each event. The differences that can arise between when using such search engine is to know which *term* would be the most suitable to look up and also cases that happened before the commencement of the internet era are most likely to be underrepresented on the web. In addition this time aspect is also relevant for the reach ability of TV and radio broadcasting services; it has not always been as easy to obtain news as it is nowadays. Therefore news might have travelled less far and had reached a smaller audience with as results less effect on the tourism demand.

Differences between different types of incidents

There are several differences that can be observed between the three types of incidents and their effects on the tourism industry. First of all, incidents that had targeted victims at random, with no specific profile, appeared to have a bigger (negative) impact on the tourism demand. This was visible in cases as 9/11, Mediterranean region, Thailand, Taiwan and New Orleans

(Katharina) where the chance of becoming a victim was bigger and as such tourists wanted to stay away from these destinations until further reassurance that no future incidents would occur, no matter the type of incident. In cases where there is a more specific profile targeted the impacts would have been smaller e.g. Munich, Jamaica and St. Lucia. If tourists did not fit into these specific groups they would have less chance to be victimized and thus the impact would be smaller. On the other hand there is St. Croix and Miami which was also targeting a specific group but the impact was much bigger. The difference may be that St. Croix's incident was a racial matter which may have been targeting their biggest tourism market and as such with the abandonment of this market the tourism sector crumbled. The motive why Miami was stricken so badly might have been because it was mostly a family vacation destination and thus people might take the safety matter of these incidents much more seriously.

Munich and Saint Lucia have proven to be the only exceptions to the rule, this referring to whenever a negative event happens it would most probably lead to the tainting of the image of a place due to creating an image of being unsafe with as ultimate result damaging the tourist arrival of that location (Pizam et al. 1999). In the case of Munich it might have helped that a specific group was targeted and not the city (location) itself, this might be a reason why the region was not negatively affected because tourists had no reason to believe that they would become victims. In addition in the 1980's the global reach of such an event was limited to the television and newspaper's public range. The internet era was still in development and thus limiting the impact of the incident. In addition as mentioned in paragraph 3.2.1 the incident might have been overshadowed by the Olympic Games. Saint Lucia's results were astounding as well, because one might tend believe that it would have had a more negative outcome considering the dependency on tourism which could have been scared off. However the key might be that the crime rates have not reached such a proportion yet which might have tipped the balance for the visiting tourists. In addition the petty crimes, tourists were encountering was nothing out of the ordinary and also these crimes were mostly targeted against the residents and not the tourists. Therefore tourists did not need to feel threaten by these incidents.

Out of the 11 cases reviewed only one case shows a definite positive result for the tourist arrivals (Munich). All of the remaining cases showed some sign of decline when it came to their tourist arrivals, some were able to recover within a short period of time, for others a longer term was necessary. Lastly, there was a group of locations successful in limiting the decline of tourist arrivals. Therefore, considering all of these results it is valid to say that locations which have experienced a negative incident would indeed notice a decline in the tourism demand towards those locations. This rationalization coincides with both what the literature discussed as well with the cases observed. People tend to feel insecure and less safe in such locations thus reducing the tourism demand and the tourist arrivals. This train of thought is also fitting

for the incident of Natalee Holloway. Considering everything that is mentioned above it can give a good indication what is to be expected and also applicable for the case of Aruba. An overview of these incidents is provided in table 13.

The following section will reproduce the hypotheses which look at the negative impact from the Natalee Holloway incident on the tourism demand, coming from the three major markets.

Table 13: Impact of tourist arrivals

| Negative incidents | Effects | Length of Period & its Impacts | Period span | Intervention (help) |
|---------------------------------|----------|---|-------------------|-----------------------------------|
| <u>Terrorism</u> | | | | |
| Munich | Positive | Immediately after→ an increase in tourist visiting and knowing Munich | Short/medium long | NA |
| 9/11 | Negative | 3 Yrs→ To obtain an upturn in tourist arrivals | Short/medium term | Counterattack & rebuilding |
| Mediterranean | Negative | Unknown→ Only mentioning of decline in market share thus a diminishing tourist demand | Immediate effect | NA |
| <u>Natural disasters</u> | | | | |
| Taiwan | Negative | 1Yr→ Drop in international tourists and arrivals | Short term | Rebuilding & plenty of promotions |
| Thailand | Negative | 1Yr→ drop in international & domestic tourists | Short term | Rebuilding & plenty of promotions |

| | | | | |
|--|--------------------|---|------------------------|---|
| New Orleans, Katharina | Negative | > 3 Yrs→ fewer tourists willing to come during certain periods or at all. | Short/medium term | Slowly rebuilding & little government support and aid |
| <u>Crimes & Murders</u> New Orleans | Neutral | Unknown→ by emphasizing positive aspect they have retained their position | Short/medium term | Safety measurements & plenty of promotions |
| Miami | Negative | 3Yrs→ Drop in international as well as domestic tourists | Short/medium | Safety measurements & plenty promotions |
| Saint Croix | Extremely negative | 10Yrs→ took a long time to come back to original state | Short/medium/long term | NA |
| Jamaica | Neutral | Unknown→ Doing fairly well under the circumstances, have not lots that many | Short/medium/long | Change towards all-inclusive concept & plenty of promotions |
| Saint Lucia | Neutral | Unknown→ crimes tend not to affect the tourists arrivals | Short/medium | Preventive measures |

- Short term=< one year, Middle term= < 5 years, Long term=> 5 years

3.6 Hypothesis

Considering the majority of the cases examined, produced a negative outcome regarding their tourist arrival whenever a well-covered incident occurs, this gives an indication of what can be expected for Aruba. Therefore considering all that is mentioned above and the literature used, it would be more appropriate to formulate the following hypotheses.

- H1.1- The disappearance of Natalee Holloway will cause the amount of American tourists visiting the island to decline
- H1.2- The disappearance of Natalee Holloway will cause the amount of Venezuelan tourists coming to the island to decline.
- H1.3- The disappearance of Natalee Holloway will cause the amount of Dutch tourists coming to the island to decline
- H1.4- The disappearance of Natalee Holloway will cause a decline on the tourism industry of Aruba.

Length of time

Taking into account that also the recovery time is of the essence for the island of Aruba which is dependent on tourism, it would be sound to forecast the recovery period from the case study. Nevertheless it has proven to be a difficult task considering the lack of long term studies in this field. A large amount of the cases examined only made observation on a short to medium term which makes it difficult to forecast the recovery time. This limitation not only restricts this thesis research from making a general recuperation period for all the sort of incidents but also limits this thesis research to correctly forecast the results for the case of Aruba.

However a great deal of the cases were able to recuperate within the short and medium term, leaving out the necessity to examine on the long term. Considering that these tourist arrivals were able to mend themselves within a five year range, this same period should be applied for Aruba. However there is only three years of data available for this case considering it took place in 2005 it is for that reason that it is assumed that the recovery period should be three years.

- H2- The disappearance of Natalee Holloway will affect the tourist arrival of Aruba for less than 3 years.

With the help of the model, which is explained in chapter four, and the hypotheses formed in this section, an answer regarding the impact of Natalee Holloway on Aruba's tourism demand will be acquired. The following chapter will explicate the model and the variables used and in addition provide answers to the third sub question.

Chapter 4: Tourism demand model

4.1 Method

In order to determine what the effects of Natalee Holloway was on the tourist arrivals of Aruba, a statistical time based model will be used and tested out in the statistical program called *Eviews*. The program used is especially designed to analyze times series models. It has the ability to forecast the value of the dependent variable as if no incident had ever occurred. It isolates the value of the incident, so that these deviations are excluded and thus trying to create a model without that specific incident and its corresponding impact. For this case it means that the model will try to bypass the possible effect that *Natalee Holloway* had on the tourism demand of Aruba.

A basic model will be used for the testing of the three major markets which constitute about 85% of the tourism market. Country related variables will need to be altered; however the basic model will remain the same for all three cases. The model which will be utilized for all three cases can be stated as followed:

$$(1) \ln Stay_{Aruba_t} = c + \theta T + \beta \ln Stay_{Aruba_{t-1}} + \eta \ln GDP + \delta \frac{CPI(Aruba)}{CPI(O)} + \gamma D_t^i + \iota M_t^i + \varepsilon_t$$

The following section will render explanations on the variables used.

4.2 Defining the model

There have been numerous empirical studies carried out done on behalf of tourism demand (Levantis et al. 2000). In general they contain income and price factor. However there are many other factors that need to be taken into account when determining tourism demand. According to Vanegas et al. (2000) both economic as well as non-economics factor play a crucial role for tourism demand. GDP, CPI, price and transport cost which qualify as economic factor do indeed explain for the greater part changes in tourism demand however non-economic factors such as 9/11, political instability may also play a role in the tourism demand.

Therefore when composing this model both economic and non-economic factors are incorporated in order to strengthen and make the model more reliable.

4.2.1 Defining the dependent variables

Stay-over visitors

As mentioned in the cases reviewed, the tourism demand is mostly measured by using the tourist arrivals of a destination. According to literature this would be the most used measuring system (Sonmez et al, 1998). Nevertheless, after testing for both tourist arrivals as well as for the stay-overs, it was decided that the Stay-over visitors would render better statistical results thus replacing the tourist arrival model with that of the Stay-over visitors. Even though both the stay-over as well as the tourist arrivals model provide similar results, the Stay-over model provides a better set of explanatory variables (R^2) and tested to be superior. Additionally, the data set of the Stay-over comprises a longer period which produces better statistical results and also smaller standard errors. Therefore the Stay-over model will be used to measure the tourism in the case of Aruba, instead of the tourist arrival model.

What needs to be noted is that there is little difference in the number regarding stay-over visitors and tourist arrivals. Tourist arrivals indicate every tourist arriving on the island and stay-over visitors comprises the arriving tourists which make use of hotel as a mean of accommodation. Therefore the difference between the two numbers would be marginal, considering most tourists would make use of accommodation facilities.

The following paragraph will focus on the independent variables used within this model. Additionally the motives for using each variable will be specified.

4.2.2 Defining the independent variables

There are numerous factors that can influence tourism demand. The most commonly used variables would be income, transport costs, price, exchange rates and marketing expenditures (Croes et al. 2005; Sinclair & Stabler, 1997; Song & Witt, 2000). These variables have proven on different occasions to be significant variables for determining the international tourism demand of countries. This section will explicate which determinants will be utilized in the case of Aruba and why they form the best fit for this model.

Real GDP

Classic economic theory and common sense indicates that income is of the essence for tourism demand, considering people need to have the available resources to go on a vacation. Whenever a country's income increases, this would provide more residents with the opportunity of affording a vacation. International tourism is seen as a luxury commodity which

implies that the level of income is of importance for determining the tourism demand (Crouch, 1994; Martin & Witt, 1989). Therefore it is essential to include the GDP variable in any tourism demand research which will also be done in this research. This variable is represented by $\ln(GDP)$.

The choice for going with Real GDP instead of Nominal GDP was based on the fact that this is adjusted for price changes and inflation and thus provides a better insight on the income available. In addition to exclude differences that might occur when calculating Real GDP for each country, one single source is used for all three countries in question, namely the International Monetary Fund database (IMF). This is done in order to provide a more consistent dataset.

CPI

The price level at a certain vacation destination can be influential for the tourism demand towards that location according to Lee, Var & Blaine (1996). This could be deduced from the fact that if the cost of living at a certain destination is lower than the tourist originating country this would be more beneficial considering that the same item would cost less in the vacation spot than in their own hometown and thus creating an initiative to visit that vacation spot (Vanegas et al. 2000). In order to give an indication of the price level observed by tourists in Aruba the Consumer Price Index of Aruba should be related to the Consumer Price Index of source countries, therefore creating more comparable means for the tourist visiting the island. This

variable is represented by $\frac{CPI(A)}{CPI(O)}$ factor. In addition the price variable has proven to be significant when attempting to recreate a tourism demand model (Lee, Var & Blaine, 1996; Loeb, 1982; Kwack, 1972).

A limitation was encountered when searching for the CPI of Venezuela. The lack of understanding the Venezuelan database led to the usage of the IMF database in order to obtain the CPI of Venezuela, however contrary to the other countries this was only obtainable on an annual basis, which was then repeated for all months as a sort of estimate for their monthly CPI.

Lagged dependent variables

The introduction of lag variables has multiple reasons. First of all, by including lag variables within the model there is a better chance to expose possible relations that might exist between two consecutive periods immediately following each other. In addition, whenever tourists go on a vacation they consider the history of the destination in question, they look at what happened in the previous periods. Therefore with the inclusion of lag one might see for how long an incident has had an impact. E.g. tourists wanting to visit the island of Aruba in July of 2005 may still be affected by the Natalee Holloway incident and ultimately decide not to go to Aruba.

For that reason the variable X_{t-1} is applied for more than one month following the disappearance of Natalee. It is reasonable to say that the effect of such an incident might be felt and talked about for more than one month, thus the lag variable is included for up to three months following the disappearance.

Dummy

Within model (1) there are two specific dummies included which are represented by the variable γD_t . The first dummy represents the disappearance of Natalee Holloway. Even though the disappearance of Natalee took place on 30th of May it is assumed that it did not have an immediate impact, therefore the dummy of Natalee is taken for the month of June in 2005. The second dummy is a (external) non-economic factor. This dummy is obtained through trial and error when searching for possible external factors which might be influential for Aruba's stay-over. The attacks on 9/11 have proven to be influential for all three countries regarding their stay-over in Aruba. Therefore the incorporation of this dummy is essential for the reliability of the model.

Seasonal fluctuation

As is known in the tourism industry there are seasonal fluctuations, this is also relevant for the case of Aruba. Therefore there have been dummies included for each month, with the exception of December, in order to produce a more dependable model. The introduction of the monthly dummies, ωM_t within *Eviews* makes that the program recognize which fluctuations are normal and as such should not be considered. The exclusion of December as a monthly dummy is due to the lag variable incorporated in the model. The introduction of a December dummy would lead to overcompensation for the autocorrelation and thus making the model less reliable (De Jong, 2007).

In order to look at trend and seasonal fluctuations a time variable is needed, As such the T variable is included within the model.

Double log function

Model (1) takes a double log form. Therefore the coefficients β and η all indicate the elasticity of the dependent variables with respect to the independent variables. The values of these coefficients indicate how the dependent variable's value would change with a one percentage change of any independent variable (Wooldridge, 2006). This indicates that the coefficients give away the elasticity of each independent variable with respect to the dependent variable.

Error term

ε_t factor stands for the error term within the model. This variable represents the factors other than the independent variables that influence the dependent variables. It reflects the unobserved factors within the model (Wooldridge, 2006).

This section looks at the variables used for determining the tourism demand of Aruba, therefore also providing an answer to the third sub question. The following paragraph will examine the variables which were not included within model (1).

4.2.3 Exclusion of independent variables

There are numerous factors which can be applied when determining the tourism demand. Two of them are exchange rates and transport costs even though they have been greatly utilized for other researches they are omitted from this model. This section will render explanations for omitting both variables from this model.

Exchange rates

That the exchange was not included even though it has been proven to be significant was due to two reasons (Rosesnsweig, 1988; Chadee & Mieczkowski, 1987). First of all the most used explanation for incorporating this variable within the model would be that it might be the only indication visitors might have about the prices prior to their vacation, given that the information about the prices are unknown. Therefore the exchange rate would form the only way to calculate the costs in a specific destination. However in the case of Aruba and the US, which is its important market, this might be less relevant considering that the Aruban Guilder is pegged to the Dollar. Therefore the price variables would be more suitable for calculating the price level on the island than the exchange rate would be. Considering this is stable and thus provides little information about the current price level on Aruba.

Additionally, according to Croes et al. (2000) the incorporation of both the exchange rate and the prices might cause multicollinearity because both factors tend to move in the same way. Therefore based on what is explained above it is believed that the incorporation of the CPI is superior and more relevant in estimating the cost of living on the island and thus it is included within the model.

Transport costs

Even though transport costs might seem as an important factor for determining the tourism demand, it is not included into this model due to different reasons. First of all obtaining the air fares has appeared to be extremely difficult task. There is no data available on this matter concerning Aruba's air fares. In addition some studies which have integrated this variable have

found this to be statistically insignificant (Stronge & Redman, 1982; Croes, 2005; Quayson & Var, 1982). For that reason this variables will not be included within this model.

The following section will comment more on the way the model is tested to see if it is statistically solid.

4.4 Goodness of fit

In order to see how representative the model is, there are four different tests carried out for each of the major tourism markets which are the US, Venezuela and the Netherlands. These tests are done in order to see if the model is reliable and representative (goodness of fit).

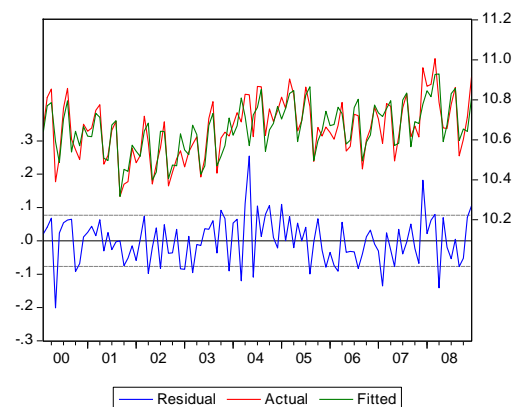
The first test which will be done is to examine the explanatory power of the model which is represented by R^2 . This indicator shows how much of the dependent variable can be explained by the independent variables within the model.

Therefore producing a factor which indicates how much of the y-factor is explained by the x-factor.

The higher the factor the more explanatory power the model has. The second test that will be carried out is to check for heteroskedasticity in the residuals. This will be done by plotting the residual graphs of each case. The reasoning behind the residual graph is to see to what extent the actual values are reflected by the created model (fitted values). The difference between the model (fitted values) and that of the actual values are then portrayed in the residual values.

The dotted line on the axes represent the margin in which most frequent values are located, thus is represent the mode of the residuals. Figure 4 is a random output of *Eviews*. This is an example of a model that has a tight fit considering that it is well within the +0.1 and the -0.1 margins and in addition there is no clear trend visible. Therefore this example illustrates a model with a tight fit and no heteroskedasticity.

Figure 4: Example residual plot



The third test is for the indication of possible serial correlation effect. When using a time series model there is a possibility that adjacent time periods might be correlated. E.g. if the first period denotes a positive trend it may be likely that the second period would also indicate this trend. Therefore in order to be sure there is no correlation between consecutive time periods the Q-statistic test will be carried out for each major market. The desirable situation would be that that for every lag included there are high p-values and high Q-statistics, this would serve then as indication of no serial correlation within this model.

The last test that will be carried out is to check for robustness within the model, this will be done by playing around with the independent variables and observing the changes that may arise. The desired situation would be, when changing the independent variables or if introducing an irrelevant variable there would be little change to the original outcomes. This proves that there is a statistically solid model.

Chapter 5: Testing of the hypotheses

Having a positive tourism demand for Aruba is essential for its survival and its future development, for that reason this chapter will analyze what the effect is for each market's tourism demand with regard to the impact of Natalee Holloway. Each model, for each market, will be tested for goodness of fit by using four different tests as explained above. Only after completing the goodness of fit test, will be proceeded to test the hypothesis and answering the corresponding hypothesis.

5.1 Case 1: US Market

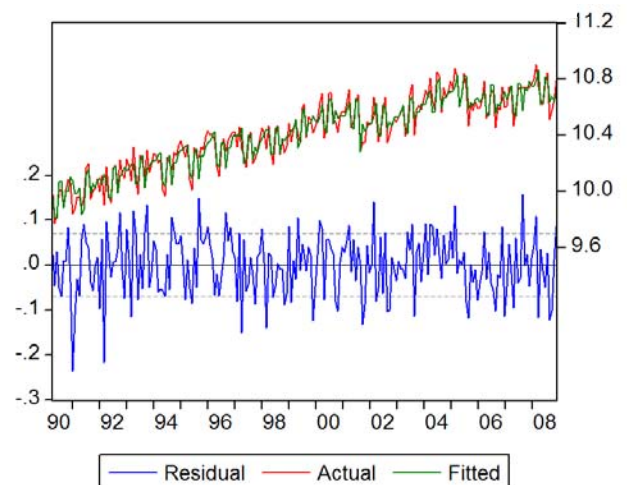
That the disappearance of Natalee Holloway may have a bigger effect on the American tourism market would be a reasonable assumption. Therefore equation (2) will be tested in order to determine to what extent this assumption holds ground.

Equation2

$$\ln\text{Stay}_{\text{Aruba}_t} = \alpha + \theta T + \eta \ln\text{GDP}_{\text{US}} + \delta \frac{\text{CPI}(\text{Aruba})}{\text{CPI}(\text{US})} + \gamma D_t^{\text{Natalee}} + \nu D_t^{9/11} + \phi M_{\text{Jan}} + \pi M_{\text{Feb}} + \rho M_{\text{Mar}} + \zeta M_{\text{Apr}} + \sigma M_{\text{May}} + \tau M + \upsilon M_{\text{Jul}} + \varphi M_{\text{Aug}} + \chi M_{\text{Sept}} + \psi M_{\text{Oct}} + \imath M_{\text{Nov}} + \beta \ln\text{Stay}_{\text{Aruba}_{t-1}} + \lambda \ln\text{Stay}_{\text{Aruba}_{t-2}} + \xi \ln\text{Stay}_{\text{Aruba}_{t-3}} + \varepsilon_t$$

The first test indicates a high explanatory power (R^2) for the model with a percentage of 93%. This indicator suggests that 93% of the variation of the dependent variables can be deduced from the different independent variables within the model. From the residual graph can be concluded that there is no heteroskedasticity within this model considering that the residuals are fairly within boundaries. This is illustrated in Figure 5. In addition there is no upward tendency of the residuals as would be the case in a model with heteroskedasticity. The Q-statistics test which is executed in *Eviews* exhibits no sign of serial correlation within the consecutive periods considering that all the Q-stats are insignificant with a high P-value. The final test is to determine the robustness of the model. The method applied for this model is to change the period used for the estimation, e.g. by eliminating a couple of months in the beginning or at the end. From this process can be concluded that with the exclusion of some variables in the beginning or at the end,

Figure 5: Residual plot of the US model



the same results are noticeable which indicates a solid model. The results of all these tests points towards a statistically sound model and thus testing of the model is allowed. Table 14 provides the results obtained from the testing of the US model but before interpreting the results, the hypothesis for the US market is stated:

The disappearance of Natalee Holloway will cause the amount of American tourists visiting the island to decline

Table 14, as stated beneath, shows which variables are significant for the Stay-over model. First of all, the GDP clearly has a significant effect on the number of stay-over considering that the P-value is lower than the 5% level and as such this is statistically different from zero. This also coincides with the literature mentioned in paragraph 4.2.2. That the CPI is not significant can be due to the fact that tourist in general do not really matter about the prices in the vacationing location. They presume that a lot of money will be spent and thus are open to the price-level. In addition lots of American tourists come on a regular basis to the island and as such the price-level is not of importance to them. Lastly, the CPI includes domestic items such as housing, car and TV, which are only relevant for residents and thus not important for the tourist making it an insignificant variable within this model (CBA).

9/11 has also proven to be significant for the stay-over in Aruba with P-value smaller than the 5% level, making it significantly different from zero. The high coefficient of, -0.185, indicates the severity of the impact of the 9/11 on Aruba's stay-over. However this is understandable, as mentioned above tourists were afraid of using airplanes as touristic transport modes considering they were used as weapons during the 9/11 attack. As such this limits the arrivals and stay-over of tourists to Aruba considering that air transportation is necessary in order to reach the island.

Even though American tourists come throughout the whole year to Aruba, there are still some months that are more significance for the stay-over. What needs to be noted is that the monthly dummies are compared to the December dummy, due to the lag period described in paragraph 4.2.2. Therefore all the coefficients for each month indicate the changes compared to the month of December. Also the high seasons for the total tourism demand of Aruba can be narrowed down to two periods between November-February and May-Augusts. The model's output signifies February as being significantly different from zero and as having effect on the stay-over of Aruba. Although February is still within the high season, it is at the end and as such indicates a negative coefficient compared to December. November is has also proven to be significant with a low P-value and the negative coefficient can be explained by the fact that it is the beginning of the high season and as such should be somewhat lower than December. That September is significant for the stay-over in Aruba with a high (negative) coefficient can be explained due to the fact that September signifies a low-peak month within Aruba's tourism

sector. According to the result, June and May are also significant for the stay-over of Aruba in a negative way considering the coefficient however this contradict the high peak seasons mentioned above. The reason for this may be because that the high peak and low peak season are based on the total market and not just on the preference of the US market. Therefore it might be high-peaks for other markets and not necessarily the US. The positive coefficient from July coincides with the summer break in the US and thus is validated by being significant for the stay-over of Aruba. The lagged variables also indicate a significant effect with the stay-over however this is understandable considering that consecutive periods may be influenced by the previous period.

However the most important variable throughout this whole thesis research is the Natalee Holloway impact, $\gamma D_t^{Natalee}$. This variable has proven to *not* be influential for the fluctuations within the stay-over numbers. With a P-value well above the 5% level it can be concluded that this variable is significantly different from zero. This indicate that based on a three lagged model tourist coming from the US market were in no way apprehensive to visit the island after the incident took place. Therefore rejecting the hypothesis and concluding that the disappearance of Natalee Holloway had no effect on the amount of tourist visiting the island.

Table 14: Output of US model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|--------------------|-------------|--------|
| LNGDP_US | 0.712664 | 0.318671 | 2.236364 | 0.0264 |
| CPI_A_CPI_US | 0.051235 | 0.324138 | 0.158067 | 0.8746 |
| YEAR | -2.09E-05 | 2.77E-05 | -0.754380 | 0.4515 |
| NATALEE | 0.085636 | 0.073590 | 1.163694 | 0.2459 |
| NINE_ELEVEN | -0.184667 | 0.073038 | -2.528376 | 0.0122 |
| DAPR | 0.002465 | 0.024583 | 0.100269 | 0.9202 |
| DAUG | 0.041531 | 0.026086 | 1.592084 | 0.1129 |
| DFEB | -0.055804 | 0.024496 | -2.278107 | 0.0238 |
| DJAN | -0.039786 | 0.025499 | -1.560321 | 0.1202 |
| DJUL | 0.073332 | 0.029389 | 2.495201 | 0.0134 |
| DJUN | -0.153059 | 0.026707 | -5.730930 | 0.0000 |
| DMAR | -0.027787 | 0.024830 | -1.119080 | 0.2644 |
| DMAY | -0.207079 | 0.024399 | -8.487204 | 0.0000 |
| DNOV | -0.070515 | 0.028986 | -2.432711 | 0.0158 |
| DOCT | -0.044721 | 0.027699 | -1.614538 | 0.1079 |
| DSEPT | -0.184462 | 0.024601 | -7.498174 | 0.0000 |
| LNSTAY_AUA_US(-1) | 0.371521 | 0.066776 | 5.563705 | 0.0000 |
| LNSTAY_AUA_US(-2) | 0.139718 | 0.070288 | 1.987790 | 0.0482 |
| LNSTAY_AUA_US(-3) | 0.138081 | 0.067453 | 2.047065 | 0.0419 |
| C | 7.495818 | 15.44749 | 0.485245 | 0.6280 |
| R-squared | 0.930339 | Mean dependent var | 10.40959 | |
| Adjusted R-squared | 0.923883 | S.D. dependent var | 0.255300 | |

5.2 Case 2: Venezuelan Market

As the second biggest market of the Aruban tourism industry it is important to see if they were influenced by the Natalee Holloway incident. The model used for determining the tourism demand for Venezuela regarding the Natalee Holloway is stated beneath in equation 3.

Equation 3

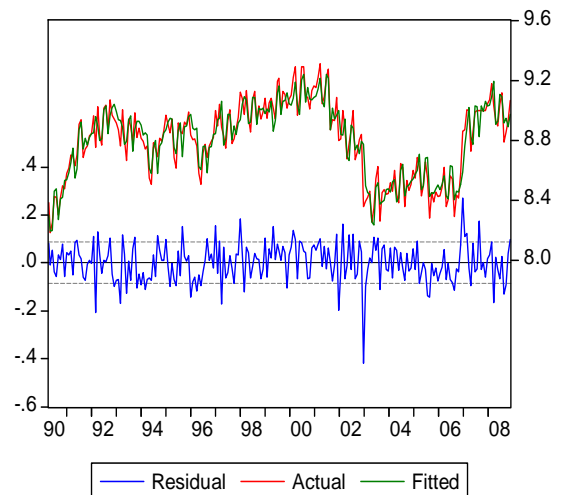
$$\ln \text{Stay}_{\text{Venezuela}_t} = \alpha + \theta T + \eta \ln \text{GDP}_{\text{Ven}} + \delta \frac{\text{CPI}_{\text{Aua}}}{\text{CPI}_{\text{Ven}}} + \gamma D_t^{\text{Natalee}} + \nu D_t^{9/11} + \phi M_{\text{Jan}} + \tau M_{\text{Feb}} + \rho M_{\text{Mar}} + \xi M_{\text{Apr}} + \sigma M_{\text{May}} + \tau M_{\text{Jun}} + \phi M_{\text{Aug}} + \chi M_{\text{Sept}} + \psi M_{\text{Oct}} + \imath M_{\text{Nov}} + \beta \ln \text{Stay}_{\text{Venezuela}_{t-1}} + \nu \ln \text{Stay}_{\text{Venezuela}_{t-2}} + \xi \ln \text{Stay}_{\text{Venezuela}_{t-3}} + \varepsilon_t$$

The explanatory power of this equation is reasonably high with a R^2 of 89%. This factor indicates that 89% of the dependent variables can be explained by the different independent variables. The residual graph, showed no sign of heteroskedasticity. The residual values are well within the boundaries and there is no upward trend observed which may signify heteroskedasticity. From the Q-statistics can be concluded that there is no serial correlations between the consecutive time periods. All Q-statistics are insignificant with a high p-value. The last test performed is for measuring how robust the model is, which is done by playing around with the sample period. This model just as the previous one also proved to be solid. Altering the length of the sample did not bring about any major changes for the output. From the outcome of these tests can be concluded that the model is statistically sound and as such testing of the model is allowed.

Table 15 illustrates the results of the Venezuelan model however before going to the results the hypothesis for the Venezuelan model will be stated:

The disappearance of Natalee Holloway will cause the amount of Venezuelan tourists visiting the island to decline

Figure 6: Residual plot of the Venezuelan model



For the Venezuelan model there are several variables which have proven to be significant for the Stay-over. The first one being the GDP, with a P-value lower than the 5% level there is an indication for being significantly different from zero and as such being significant for the stay-over. However as mentioned above this is reasonable taking into account that the more income one has the incentive there will be to go on a vacation. That CPI has no effect on the stay-over of Aruba might be due to the fact that first of all Venezuelan tourists mostly come for a short period of time and the prime purpose of their visitation is mostly for shopping which indicates that the price-level is not relevant for this group.

Even though 9/11 is not significant according to the results in view of the 5% level, it is still important enough to consider, due to its borderline characteristics. Even though Venezuela is a 15 minute flight from Aruba, the impacts of 9/11 coming from the Venezuela tourism market were still felt in Aruba. The negative coefficient of -0.165 indicates the negative relation between the impact and the stay-over from the Venezuelan market which might have been cost by the fear of using of airplanes.

February, July, June, May and September are all significant for the stay-over. All these variables have a P-value below the 5% level which indicates that they are statistically different from zero and thus are influential for the stay-over level of the Venezuelan market. September, as in the US case, shows a negative relation with the stay-over however this is validated because it is the slowest month of the year and thus the high coefficient indicates a big decrease in stay-over compared to December. February is also at the end of the first high peak therefore having a lower (negative) coefficient compared to December. July has proven to be superior to December by having a positive coefficient and a low P-value, meaning that July is able to attract more stay-over than in December. An explanation for this is that it coincides with the summer break in Venezuela. As can be seen from the results May is much more negative than June when comparing both to December. This may be because it is the beginning of the second high-season and therefore a little slower.

In this model only the first and the second lag is significant when comparing to the 5% level, however the last lag is so close to the borderline that its importance needs to be considered. The significance between the lags and the stay-over is comprehensible taking into account that consecutive periods do influence each other and as such an effect will be visible which manifest itself through the P-value.

However the most important variable throughout this thesis research which is Natalee Holloway appears to *not* be significant for this case either. With a P-value of 0.6421 which is well above the significance level of 5% there is no reason to believe that there will be a

significant effect on the stay-over. This result is also realistic considering that *not* even the American tourists felt this incident to be important. In addition most Venezuelan tourist come to the island for shopping purposes and thus stays only a short period of time and not necessarily feel insecure about what happened. Based on the results obtain from the model, the hypothesis should be rejected and therefore there is no reason to believe that the disappearance of Natalee Holloway would cause a decline in the amount of tourist visiting the island.

Table 15: Output of Venezuela's model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|--------|
| LNGDP_VEN | 0.241970 | 0.075388 | 3.209649 | 0.0015 |
| CPI_A_CPI_VEN | -0.007622 | 0.018125 | -0.420499 | 0.6746 |
| YEAR | -1.83E-05 | 8.50E-06 | -2.155015 | 0.0323 |
| NATALEE | 0.041458 | 0.089072 | 0.465443 | 0.6421 |
| NINE_ELEVEN | -0.165353 | 0.089165 | -1.854451 | 0.0651 |
| DAPR | -0.002469 | 0.028755 | -0.085857 | 0.9317 |
| DAUG | 0.030375 | 0.031037 | 0.978681 | 0.3289 |
| DFEB | -0.062424 | 0.028648 | -2.179006 | 0.0305 |
| DJAN | -0.041855 | 0.029503 | -1.418675 | 0.1575 |
| DJUL | 0.106151 | 0.033961 | 3.125680 | 0.0020 |
| DJUN | -0.132582 | 0.031176 | -4.252705 | 0.0000 |
| DMAR | -0.031063 | 0.029084 | -1.068032 | 0.2868 |
| DMAY | -0.223969 | 0.028489 | -7.861597 | 0.0000 |
| DNOV | -0.062460 | 0.033886 | -1.843235 | 0.0667 |
| DOCT | -0.030438 | 0.031950 | -0.952697 | 0.3419 |
| DSEPT | -0.214499 | 0.029296 | -7.321711 | 0.0000 |
| LNSTAY_AUA_VENE | 0.574577 | 0.068149 | 8.431127 | 0.0000 |
| (-1) | | | | |
| LNSTAY_AUA_VENE | 0.211505 | 0.076726 | 2.756624 | 0.0064 |
| (-2) | | | | |
| LNSTAY_AUA_VENE | 0.121291 | 0.067460 | 1.797971 | 0.0737 |
| (-3) | | | | |
| C | 10.00019 | 5.442396 | 1.837460 | 0.0676 |
| R-squared | 0.893906 | Mean dependent var | 8.798988 | |
| Adjusted R-squared | 0.884073 | S.D. dependent var | 0.252372 | |
| S.E. of regression | 0.085928 | Akaike info criterion | -1.985931 | |

5.3 Case 3: Dutch Market

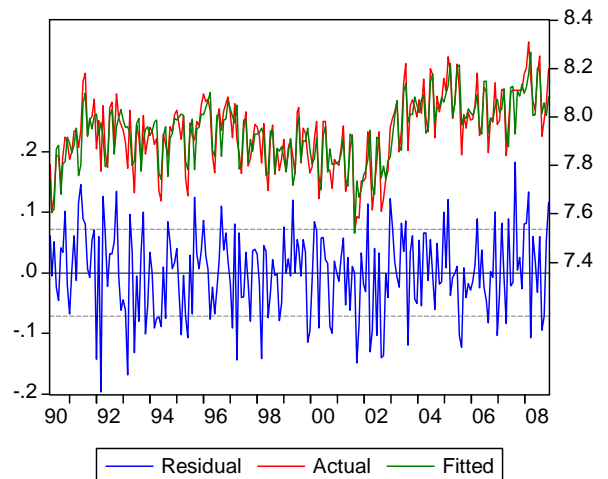
The third largest tourism market will also be tested for the potential impact Natalee Holloway may have had on their tourism demand. Equation 4 will be utilized in order to determine to what extent this incident is relevant for this market.

Equation 4

$$\ln Stay_{Aruba,t} = \alpha + \theta T + \eta \ln GDP_{Ned} + \delta \frac{CPI(Aruba)}{CPI(Ned)} + \gamma D_{E}^{Natalee} + \theta D_{E}^{9/11} + \phi M_{Jan} + \tau M_{Feb} + \rho M_{Mar} + \varsigma M_{Apr} + \sigma M_{May} + \upsilon M_{Jun} + \varphi M_{Jul} + \chi M_{Aug} + \psi M_{Sept} + \omega M_{Oct} + \nu M_{Nov} + \beta \ln Stay_{Aruba,t-1} + \nu \ln Stay_{Aruba,t-2} + \xi \ln Stay_{Aruba,t-3} + \epsilon_t$$

With an explanatory power of 77.5%, it reproduces a fairly good model. 77.5% of the dependent model is explained through the use of independent variables. From the residual graph there is no heteroskedasticity visible. The residual value has a fairly constant pattern and there is no sign of an upward trend also the graph is well within the +0.1 and -0.1 margin which leads to the conclusion that there is no heteroskedasticity within this model. The Q-statistics was insignificant with high p-values thus signifying no serial correlation within this model. For all three lags the p-value is well above the 5% criteria. From the robust test can be concluded that this is a sturdy model, with little change whenever the sample period is altered. All four tests point to the same conclusion which is that this model is statistically sound and as such could be used to test the following hypothesis for the Dutch market.

Figure 7: Residual plot of the Dutch model



The disappearance of Natalee Holloway will cause the amount of Dutch tourists visiting the island to decline

From the output can be concluded that different variables have proven to be significant for the amount of stay-over. Just as in the first two cases, GDP also tends to be significant for the Dutch market with a P-Value well beneath the significance level and as such having an effect on the amount of stay-over. However the GDP shows a negative relation towards the stay-over, with an elasticity of -0.815837. Indicating that as the GDP raises fewer Dutch tourists will visit Aruba.

A reason for this relation might be that Dutch tourists who frequently visits the island normally resides with family and acquaintances therefore whenever their GDP increases they would be able to afford a more luxurious vacation with accommodation however this might be in favor of a new destination considering that Aruba would be known to them due to their frequent visits to the island.

The variable CPI is in this case also insignificant for the amount of stay-over; however this variable has a bit more influence on the Dutch market considering having the lowest P-value for all three markets. A reason for this might be that the Euro value fluctuates and thus tourists might want to see which period might be more beneficial to visit the island. This is not the case in the US considering that the dollar is pegged and Venezuela go to Aruba for shopping purposes and thus price-level is not important.

9/11 proved to be relevant for this case with a P-value lower than the 5% level and thus being significantly different from zero. The reason for the impact of 9/11 coincides with what is mentioned in paragraph 3.2.1 that tourists might have felt more afraid of making use of airplanes as their transport mode and as such caused a reduction in the amount of tourist's stay-over.

Even though the P-value of August is theoretically not significant due to being more than the 5% level, it will still be considered as such to its low P-value. The positive coefficient of both July and August indicates that compared to the December they bring in more stay-over, making July and August the best month for the Dutch tourism market. This also coincides with the summer break of the Netherlands and as such it is understandable that more tourists would visit the island in this month. May and June signifies the being of the high season and therefore might still be significantly different from December. Just as in the previous cases September illustrates a significant effect on the stay-over amount compared to December however this is due to the being the slowest month of the year. Lagged variables also appear to be significant for the first two lag (low P-value), indicating that the influence of the consecutive period are felt for two periods (two lags).

Just as in the previous cases Natalee Holloway's disappearance had no effect for the Dutch tourists staying on the island either. With a P-value of 0.2906, it is well above the 5% criteria level and thus there is no significant relation between Natalee Holloway incident and the stay-over. Therefore this leads to the rejection of the above stated hypothesis which indicates that Natalee Holloway did in fact not have an influence on the tourist stay-over. Table 16 provides the results for this model.

Table 16: Output of Netherland’s model

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|--------|
| LNGDP_NED | -0.815837 | 0.285157 | -2.861011 | 0.0047 |
| CPI_A_CPI_NL | -0.010213 | 0.008711 | -1.172375 | 0.2424 |
| YEAR | 6.57E-05 | 2.16E-05 | 3.044461 | 0.0026 |
| NATALEE | 0.079879 | 0.075395 | 1.059471 | 0.2906 |
| NINE_ELEVEN | -0.211839 | 0.075166 | -2.818296 | 0.0053 |
| DAPR | 0.027244 | 0.025304 | 1.076662 | 0.2829 |
| DAUG | 0.050211 | 0.026857 | 1.869532 | 0.0630 |
| DFEB | -0.031565 | 0.025575 | -1.234240 | 0.2185 |
| DJAN | -0.021088 | 0.026248 | -0.803412 | 0.4227 |
| DJUL | 0.113431 | 0.029952 | 3.787064 | 0.0002 |
| DJUN | -0.124811 | 0.027288 | -4.573909 | 0.0000 |
| DMAR | -0.003062 | 0.025972 | -0.117902 | 0.9063 |
| DMAY | -0.190433 | 0.025211 | -7.553461 | 0.0000 |
| DNOV | -0.049330 | 0.029716 | -1.660035 | 0.0984 |
| DOCT | -0.025708 | 0.028221 | -0.910951 | 0.3634 |
| DSEPT | -0.190394 | 0.025430 | -7.486894 | 0.0000 |
| LNSTAY_AUA_NL(-1) | 0.451857 | 0.067801 | 6.664427 | 0.0000 |
| LNSTAY_AUA_NL(-2) | 0.198793 | 0.071992 | 2.761311 | 0.0063 |
| LNSTAY_AUA_NL(-3) | 0.070555 | 0.066599 | 1.059405 | 0.2907 |
| C | -35.20305 | 11.86577 | -2.966774 | 0.0034 |
| R-squared | 0.775357 | Mean dependent var | 7.936846 | |
| Adjusted R-squared | 0.754536 | S.D. dependent var | 0.146101 | |
| S.E. of regression | 0.072385 | Akaike info criterion | -2.328955 | |
| Sum squared resid | 1.074108 | Schwarz criterion | -2.025302 | |
| Log likelihood | 282.0075 | F-statistic | 6.03E-56 | |

5.4 Conclusion

The results obtained above from the three cases above clearly indicate that the Natalee Holloway incident did not have any effect on the vacationing patterns of Aruba’s three largest tourism markets. All three dummies within the models have proven to be statistically insignificant by having a high P-value and as such having no influence on the amount of stay-over on the island for these three markets. In addition, this also answers the fourth sub question.

If the incident did not have any effect on the amount of tourist stay-overs on the island it would automatically indicate that a recovery period is not applicable considering there was no effect in the first place. As a result the fourth hypothesis, which states that *the disappearance of Natalee Holloway will affect the tourist arrival of Aruba for less than 3 years*, must be rejected.

Chapter 6: Conclusion & Recommendations

The disappearance of an American teenager and the concerns from Aruban public institutions is what sparked the interest for this topic. The purpose of this thesis research was to investigate if a negative experience, such as a Natalee Holloway incident, would negatively impact the tourism demand of Aruba, considering its dependence on tourism for the further development of the island. In order to optimally calculate any effects, several sub questions were formed to guide the thesis research in answering the main research question. The main research question for this thesis research is stated below.

How has the Natalee Holloway incident affected the tourist flow coming to the island of Aruba?

6.1 Conclusion

First of all, in order to answer the main question three hypotheses were tested for the three biggest market of Aruba, which are the US, Venezuela and the Netherlands. These three markets form about 85% of the total tourism market and thus giving a good representation of what is to be expected for the whole market. Our analysis in this thesis research clearly shows that the impact of the Natalee Holloway incident on the tourist stay-over on the island of Aruba is not significant for any of the three major markets. Table 17 illustrates the P-value of the Natalee Holloway affect for the three markets.

Table 27: P-value for all three markets.

| Major markets | P-value | Coefficient |
|---------------|---------|-------------|
| USA | 0.2459 | 0.085564 |
| Venezuela | 0.6421 | 0.041458 |
| Netherlands | 0.2906 | 0.079879 |

That the USA market was not affected by this incident might be due to two different reasons. First of all, a great portion of American tourists that visit the island are returning visitors and as such, they understand that such incidents do not happen on a frequent basis. The reason why they come back to the island is because it gives a safe and secure feeling, therefore they will not be immediately scared off by one incident given that they assume that this could also happen somewhere else. In addition they might feel that they do not fit the profile of the victim, Natalee Holloway. They might associate the incident with being young and a risk takers and thus excluding them from becoming victims due to having a different characteristics and other vacation purposes. This coincides with the case of Munich were only a specific group is targeted and as such has a limited effect on the whole tourism population.

That Venezuela would not be affected by the incident is understandable, considering that they consider Aruba as shopping vacation and only stay for a short period of time. Therefore the disappearance of a girl would be of less interest to them.

Dutch tourists also seemed to not be affected by the Natalee Holloway incident. This may be because Dutch tourists are also returning visitors to the island and know that these types of incidents do not happen on a regular basis and therefore should not feel threatened by the situation. In addition as mentioned in paragraph 5.3 Dutch tourists normally reside with acquaintances and families and as such are less likely to encounter such situations considering their vacationing patterns would be different from that of a young teenage girl.

These three markets form about 85% of the total tourism market therefore giving a good indication of the market's changes. For that reason these cases indicate that the whole tourism market would not be affected by the Natalee Holloway incident and as such no changes towards the tourism demand of Aruba would take place and thus answering the main question. The insignificant effect of Natalee Holloway would not bring any changes for the tourism demand towards the island and therefore no changes will be observed for the incoming tourist flow.

6.2 Recommendations

Possible future research might be able to obtain a better model if the marketing and promotions budget were to be included. Due to the lack of cooperation this was not the case. However this data might be relevant for establishing a more accurate relation between Aruba's tourism demand and the impact of the Natalee Holloway incident. Additionally, marketing and promotions budget undoubtedly have an effect on the tourism demand itself, which could strengthen the model.

Future tourism policies might want to look at the best way in which such incidents could be prevented. As can be seen from the results, tourists (American and Dutch) still feel safe on the island. However if this were to happen on a more frequent basis, this safe image that Aruba now possesses may be tarnished. That is why preventive measures should be put into place, such as in the case of Jamaica and Saint Lucia, in order to limit the impact of these incidents recurring.

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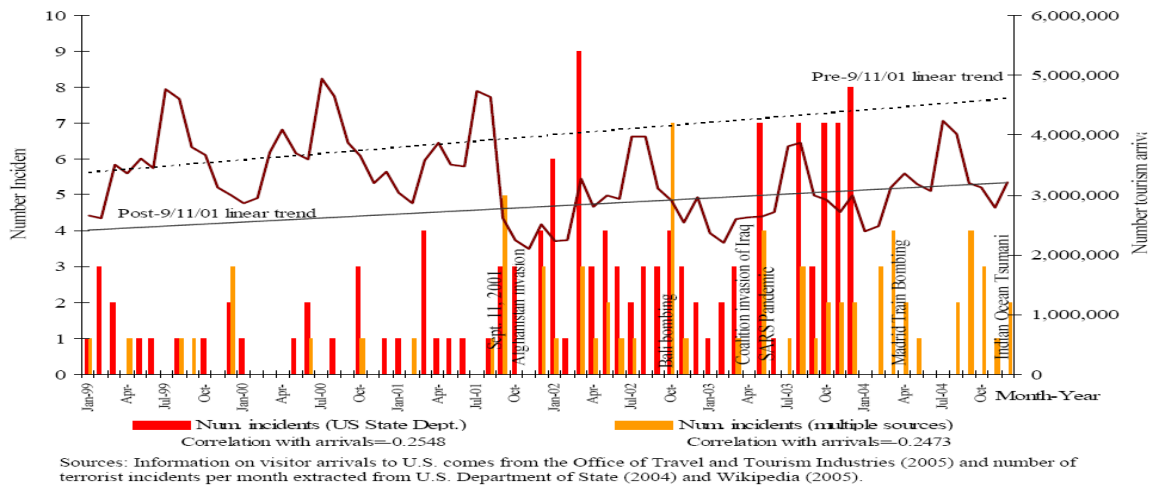
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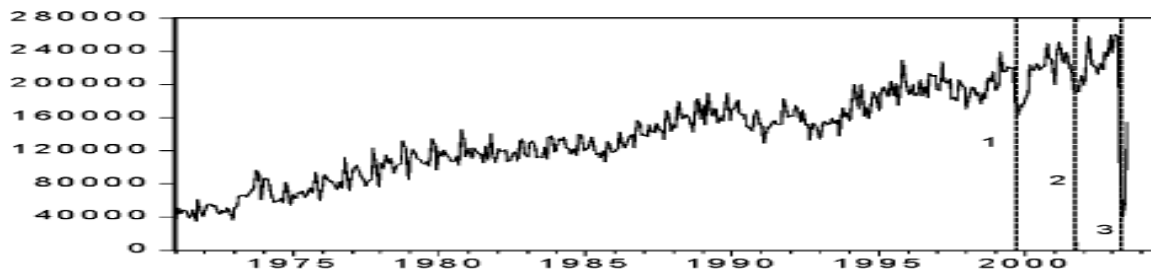
Appendix

Graph 1



24

Graph 2



The figure represents the monthly tourist arrivals. Dotted line 1= the earthquake 21/9; dotted line 2 = 9/11 and dotted line 3 =the SARS outbreak.

