Niche Tourism within Small Island Tourism Economies: An Analysis of SCUBA Tourists In Bermuda.

by

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ABSTRACT

Developing new markets in tourism is vital for the prosperity of Small Island Tourism Economies like Bermuda (McElroy). Countries must continuously improve and reinvent themselves in order to maintain growth. SCUBA diving in Bermuda is a market that could be improved. Most SCUBA divers are of higher than average household income and can make an attractive tourist base. This thesis analyzes SCUBA tourists in Bermuda to ascertain their characteristics, economics impacts, and participation in island activities in order to help guide future endeavors involving SCUBA tourism in Bermuda and provide an outline of how to analyze other Niche markets. Comparisons are made between SCUBA and Non-SCUBA tourists (those who participated in Scuba against those that did not). The results show that spending, activities/events participated, and SCUBA tourists characteristics are not all significantly different from one another at the 5% level. Meaning that some variables were significant and some weren’t, with in their respective groups. Within Trip Expenditures it was shown that, of the 9 variables tested, 3 were significant. In Activities, 8 of the 11 tested were significant, attractions there were 8 of the 18 variables that were significant and in Evening Entertainment, there was 2 out the 6 variables being significant at the 5% level.
DEDICATION

For my Nuggets. I love you Kyleigh.
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Introduction

Tourism is a dynamic market and so are its clients. Developing new and rejuvenating old markets to attract these clients is of superb importance (Butler, 1980). Tourism is a multibillion-dollar industry and has contributed to the prosperity of many nations through its diversity, including Bermuda. The country of Bermuda is a small island, with its economy being heavily reliant on providing financial services for international businesses. Coming in second, but a distant second, is what used to be Bermuda’s number one economy contributor: Tourism (C.I.A. World Fact Book). Bermuda’s tourism has been on the decline since the mid to early 90’s (Figures 4 & 5), as per the Bermuda Department of Tourism’s Research Manager (Gilbert Rowlings). Bermuda has currently reached a plateau and will either fall into decline or reinvent itself. The reinventing itself comes from Butler (1980) and refers to the rejuvenation stage, in his Tourism Area Life Cycle (TALC). Specialized and Niche tourism initiatives have shown to help in the attraction of tourists, and in many cases these tourists are of higher than average income (Neirotti, 1999). Bermuda is well suited to provide niche markets because of its size and its exclusivity and already the majority of its tourists are of higher than average income. This study will be looking at SCUBA diving which is considered a Niche market as defined by Bull (1999), and if these specific tourists are high-yield tourists. High-Yield tourists are tourists with a high per capita spending (Dwyer and Forsyth).

In order to ascertain if SCUBA tourists in Bermuda are high-yield tourists, this study conducts Independent Sample T-tests and Chi Squared tests on data that
has been previously gathered for the Bermuda Department of Tourism. These
tests have been done with respect to expenditures, as well as activities, and tourist
characteristics. Comparisons will be between SCUBA and Non-SCUBA tourists
who visited Bermuda by air.

The analysis of this data will seek to better understand what effects
specialization or niche markets have, and also if a more specific market such as
SCUBA diving could be beneficial to the island's tourism economy and
counteract the decline in the number of tourists. Currently there is a lack of
knowledge about the SCUBA tourists in Bermuda and this has lead to the
probable under-marketing to this group. SCUBA diving was chosen because of
Bermuda’s excessive reef population and shipwrecks. It has abundant saltwater
resources and boasts a large and healthy reef system as well as numerous
shipwrecks. It was chosen to represent niche markets because it was shown to
have the potential for growth and of the activities presented in the study it was the
one was most documented to be a niche market.

Studies in other areas of the world have shown that dive tourism
can be a significant contributor to the local economies (Tapasuwan, 2008),
bringing in more of the higher income tourists and increasing tourist expenditure.
With higher income tourists, the more luxury goods and services would be
purchased and thus increase the average tourist spending. On the other hand, the
majority of studies have focused on ecological impacts and how increased dive
tourism is negatively correlated to reef and coral health (Hasler, 2008). These
studies have taken place all over the world, from the Caribbean to the Islands of
Thailand. This shows that SCUBA diving and its impacts are becoming of increasing interest (Tapasuwan, 2008). As mentioned previously, very few studies have analyzed solely the economic impact of SCUBA diving and none have been done for the island of Bermuda. This study is not a full economic impact study, but does analyze SCUBA tourists expenditures data, which is necessary for future economic impact studies.
Purpose

The purpose of this Study is to test whether SCUBA and Non-SCUBA tourists are statistically and significantly different from one another with respect to their expenditures, activities and characteristics. Based on this we will be testing the following hypotheses:

- H1: There is a difference in characteristics between SCUBA and Non-SCUBA tourists.
- H2: There is a difference in activities participated in between SCUBA and Non-SCUBA tourists.
- H3: There is a difference in trip expenditures between SCUBA and Non-SCUBA tourists.
Literature Review

Bermuda was discovered in 1503 by Juan De Bermudez, a Spanish explorer for whom the Island is named after. Almost a hundred years later a ship from England headed to Jamestown Virginia was shipwrecked on Bermudas numerous and notorious reefs. A man by the name of Admiral Sir George Sommers was the leader of this expedition and took his party to the island after the wreck. He then commissioned the building of two ships out of Bermuda cedar to continue the sail to Jamestown. Upon leaving Sir George Sommers left a small contingent of people on the island to colonize it for Britain. (The Admiral returned within the year to Bermuda but died shortly after and the British government renamed Bermuda the Sommers Isles in his honor, but the name did not last long.) This is when Bermuda was first documented to have a permanent colony of people on it. Bermuda is now a self governing overseas territory of the United Kingdom and has the world’s third oldest parliament. Bermuda is located off of the east coast of the United States with closest point being Cape Hatteras North Carolina, roughly about 700 miles. (Its coordinates are 32.20 North, 64.45 West) (Please see Figure 1)
Figure 1: Location Of Bermuda

Bermuda is the 20\textsuperscript{th} smallest country in the world with a landmass of 54 square kilometers (map of Bermuda Figure 2) and 103km of coastline. The population in Bermuda as of a 2010 census is 68,879 people with an average age of 42 years old with the majority of people working in the services industry which is around 90%. The economy is heavily reliant on international business and luxury facilities for tourists (CIA World Fact Book). The climate in Bermuda is subtropical and is relatively mild in the fall, winter, and spring months. The months that are the hottest are obviously the summer months where temperatures can become uncomfortable, mostly in part to the high humidity rate. In the months of May through October, the temperature averages between 75F/23C and 85F/29C, with the humidity often reaching over 85%. The mean daily temperature
for Bermuda year round is 75F and has an average annual rainfall of around 55 inches, over approximately 200 days of rain. The location of Bermuda in the Gulf Stream is the reason for its temperatures both in and out of the sea. The average inshore sea surface temperature in Bermuda during its coldest months in February, is 63.7F and its hottest month, in July at 82.7F (Forbes, 2011). These temperatures help to maintain Bermuda’s reef system, which is the most Northern in the World (BREAM) and they span over 280 square miles. Also interesting to note is that Bermuda is also known as the shipwreck capital of the world, in part due to the abundance of reefs around Bermuda of which many ships have hit (Bermuda Diving).

Bermuda’s shipwrecks are numerous and have even been featured on msnbc.com, where they have highlighted that most of the wrecks are documented on Google earth, with plans in the future to encompass their underwater photography application to photograph the wrecks, so that they will be able to be viewed on Google earth by anyone. Below is the current Google earth image put together with terrain satellite images. It highlights all the shipwrecks around Bermuda. (See Figure 3)
Bermuda is a Small Islands Tourist Economy (SITE)(McElroy, 2010), which consists of countries that are islands, with population and land size below a stated number. These numbers are less than a 10 million population and 5000 km$^2$ land area. SITE’s are also heavily reliant on foreign investment, be it through tourism or international business such as off shore banking. With the current global economic recession/downturn, tourism has taken a major decline as well as financial institutions (Papatheodoru, 2010), which Bermuda relies so heavily upon. Therefore new markets need to be developed or adapted to ensure a positive growth in the future for both industries.

The Tourism Area Life Cycle (TALC) by Butler (1980), calls for the reinvention and possible rebranding of a destination once it has reached its plateau, which Bermuda seems to be at currently. Without this reinvention the
destination could go into steep decline. Bermuda’s tourist numbers have been declining for the past two decades, especially in the air arrivals section. In looking at the graph below, you can see a steadying with a few peaks here and there. This is due to the increase in cruise ship passengers as the Figures 4 and 5, supplied by the BDOT show below.

Figure 4: Air and Cruise Visitor Arrivals 1980-2011

Supplied by the Bermuda Department of Tourism
Cruise ship passengers are not high yield tourists like the air passengers and thus are not contributing to Bermuda’s economy as much as the air arriving tourists. This is a main reason why this study focuses on air arrivals and not cruise arrivals. In the 2011-2012 Tourism Budget Statement for Bermuda (page B-342) it shows that the average spending by visitors from the air in 2009 is $512 (exclusive of accommodations) and inclusive of accommodations it ranged from $938-$1,133. In the same report it also shows average spending by visitors cruise ship to be $112-$114 a person. To better put this in perspective this means that with the 235,860 air tourist last year multiplied by their average spending totals...
(235,860*1,133)=267,229,380, whereas the number of cruise ship arrivals was 318,528 and multiplied by their average spending (318,528*$114)= $36,312,192. This is quite a difference and shows the need for Bermuda to attract more air arrivals than cruise ship arrivals. This is where the TALC model developed by Butler comes into play.

**Figure 6 : A Tourism Area Cycle Of Evolution**

*Figure 6. A Tourism Area Cycle of Evolution. (For explanation of A–E see ‘Implications.’) Butler 1980 Page 7 “Tourism Area Cycle of Evolution”*
Butler outlines various stages that a tourism destination may go through, they are as follows: the exploration stage, the infrastructure stage, the development stage, the consolidation stage, the stagnate stage, and the decline stage or rejuvenation stage (These stages are also displayed in Figure 6 above). The exploration stage is where small numbers of tourists are visiting the destination that has little or no tourism infrastructure. The involvement stage is where tourists are still slight though tourism facilities are being developed and interaction between locals and tourists is quite high. The development stage, much like it sounds, is where the heavy marketing comes in to promote the destination and tourism facilities are being developed quite quickly. The appeal for the tourists who first came has diminished and changes in physical appearance are noticeable. The consolidation stage is where the plateau takes place. This is where visitors numbers will still increase though at a declining rate. This stage is also where major franchises have entered the market and also a discontent grows amongst permanent residents towards tourists. The Stagnation stage is where the peak number of visitors will have been reached and the destination has now become less fashionable than it was in previous stages. Repeat visitors will be the bulk of the visitors to the destination and the destinations image would have been well established. Finally the last stages are either the decline stage, where a destination has not changed or adapted to its clientele and is losing its visitors to other destinations. “Ultimately, the area may become a veritable tourist slum or lose its tourist function completely” (Butler, 1980, pg9).

The alternate stage or way to go is called the rejuvenation stage; this is
where Butler states either of two alternatives can be done. First would be a complete change in attractions, and the building of man-made ones. Butler gives the example of Atlantic City and how it changed it appearance dramatically. The other “alternative approach to rejuvenation is to take advantage of previously untapped natural resources” (Butler, 1980, pg9). As mentioned prior, Bermuda has over 200 square miles of reef system and the most northern tropical reef in the world. Bermuda is surrounded by water which is the island’s most abundant natural resource. Using Butlers statement referenced earlier, Bermuda might use this as a source to enter the rejuvenation stage of his model, which could in turn increase tourism numbers. SCUBA diving is a niche market in Bermuda, and the natural resources used to do it are currently being under-utilized.

SCUBA (Self Contained Underwater Breathing Apparatus) as the name indicates is a way of being underwater for extended periods of time without coming to the surface. SCUBA diving is a fast growing sport throughout the world, particularly in the United States with growth rates at 13% a year through 1984-1993 (Davis, 1996). This number was supplied through PADI, (The Professional Association of Dive Instructors), which is the world’s largest dive training organization. Most countries require basic certification to dive their sites (PADI and NAUI are the major certifiers throughout the world) and obtaining a valid certificate may take few days training and can be quite expensive. The courses can vary from $150-$400 (personal communication, Heidi Hess); this would presuppose that people interested enough in the sport to become actively involved would have the availability to a higher than average income. Niche
tourism has been documented you to attract these higher than average tourists (Neirotti, 1999)

“The concept of ‘niche tourism’ has emerged in recent years in counter point to what is commonly referred to as ‘mass tourism’. It implies a more sophisticated set of practices that distinguish and differentiate tourists” (Novelli, 2005, Pg1). Novelli goes on say that niche tourism is much like the niche marketing in that the definition

“can be extended further to refer to a specific product tailored to meet the needs of a particular audience/market segment…. Thus we can speak of a ‘niche market’ as a more narrowly defined group whereby the individuals in the group are identifiable by the same specialized needs or interests and are defined as having a strong desire for the products on offer” (Novelli, 2005, pg 5).

With this said, it is possible to label just about anything as niche tourism, almost anything that isn’t mass tourism is niche tourism. Novelli then goes onto introduce macro niche tourism and then within that, micro niche tourism markets. Where macro tourism is defined as broad the subjects, as the name implies, are cultural tourism, rural tourism, sports tourism and so on whereas micro-niche tourism are these broad areas broken down in to much smaller markets, such as geo tourism, gastronomy tourism, cycling tourism, scuba tourism and so on. The possibilities of different types of niche tourism especially micro-niche tourism is almost endless, and is only bound by a person’s imagination and pocket book. Figure 7 is a breakdown of tourism activities segmented into mass and niche tourism, with more emphasis on niche tourism and its breakdown as depicted by Novelli.
In the book Niche Tourism, it states the fact that this type of tourism, Niche tourism, often attracts the more affluent type of tourist, and calls this type of tourism an “elite” form of tourism. Typically more specialized activities cost more money due to the smaller size and exclusivity of the activity. Because of this niche tourism is also seen to be sustainable, do to its smallness, and the small impact it has compared to that of the classical mass tourism (Novelli, 2005). “The World trade Organization (WTO) and the World Travel and Tourism Council (WTTC) view niche tourism consumption as more beneficial to the host
communities as compared to the more traditional forms of mass tourism (Hall and Weiler, 1992; Hall and Lew, 1998 cited in Novelli, 2005). Also in a paper by Dwyer and Forsyth they label these types of tourists as “high yield tourists”. These are tourists with a high per capita spending, and are often associated with niche markets.

“(T)he standard definition of ‘yield’, as used by many tourism stake holders, .. (is) the concept refers to the expenditure injection of tourists (sales revenue) or the profitability of catering to different markets. Thus for many tourism stakeholders, a high-yield market is a big spending market” (Dwyer, pg156).

Dwyer’s paper also highlights the importance of “developing new and innovative products and experiences with a focus on developing ‘high yield’ niche markets” (Dwyer, pg155). It also outlines a few other countries that are also implementing the same ideas of high yield niche tourism, these include; New Zealand, Hong Kong, Australia, Sri Lanka and also the British Tourism Partnership and the Northern Ireland Tourism Board. Though the last two, Britain and Northern Ireland, do this by attracting business tourists, which they have indicated as a high yield and high quality type of tourism. This shows a trend/movement from the mass tourist, to more specialized (niche) tourist, whose per capita spending is higher, and a “high yield market ensures that the industry gains optimal returns on tourism investment.” (Dwyer, pg156). The yield and niche tourists puts less stress on the infrastructure of a destination, though injects more revenue. This is a perfect combination for a delicate ecosystems, and small islands such as Bermuda.

As noted before, tourism is a major portion of Small Island Tourism
Economies as outlined by McElroy (2010). He states that SITE’s are heavily reliant on Foreign Direct Investment (FDI), and tourism, as well as international business is a major player in that. This means that diversifying these markets is essential to the prosperity of these small islands. In looking at tourism, Brau et al. (2007) puts it best, “Smallness per se can be good for growth as long as it is combined with tourism specialization.” SCUBA diving in Bermuda is a specialization (niche market) that should be explored in more depth. SCUBA diving has been classified as many different segments including; Nature-Based tourism, Eco Tourism and Adventure and Sports Tourism, with the latter two being ones of the most prominence. Adventure tourism is an expanding market in the tourism industry. Adventure tourism/travel defined by Sung. (2004, pg343) is “ A trip or travel with the specific purpose of activity participation to explore a new experience, often involving perceived risks or controlled danger associated with personal challenges, in a natural environment or exotic outdoor setting”. Sports Tourism as defined by Hudson refers to “the travel away from home to play sport, watch sport, or to visit a sports attraction, and includes both competitive, and noncompetitive activities” (2003, pg xvii). He then later also divides this category in two segments the sports participation travel and the sports spectatorial travel, with the first, as the names sounds, is going to actually play or participate and the second going to watch. In this study the focus is on the sports participation traveler, the tourist participating in SCUBA diving

Sports tourism/Adventure tourism is increasing worldwide and within those categories SCUBA diving is also growing at an accelerated pace (Bull,
Neirotti outlined sports tourism expenditures in 1999 to be of $118.3 billion in the United States alone (1999). This shows how large the industry is getting and its potential. Sports tourism is a macro-niche tourism category and like many other categories can be broken down further into niche tourism segments. One of those segments is water-based tourism with micro-niche markets such as SCUBA-diving, windsurfing and windsailing (Bull, 1999). Other indicators are provided by PADI and its members.

PADI is the world’s largest certifier of SCUBA divers and according to their Worldwide Corporate Statistics of 2010 (WCS2010), the percentage change from 1996-2010 is an increase of 66.1% (81,321 members to 135,035 members). PADI’s retail and resorts membership over the same period grew 48.8% (4,036-6,005). PADI can certify someone as young as 10 years old, although according to the statistics provided by PADI the average age of people obtaining diving certifications in 2010 was 29. This age is just about in the middle of the average sport tourist. Depley outlines the sports tourist attributes in her article “An Overview of sport tourism: Building towards a Dimensional Framework”, “The average sports tourist is as follows: a physically active, college educated, relatively affluent (> $40,000 per household) 18-44 year old, while the majority of sport tourists spend on average $500 per vacation. 6% spend over $2,500 per vacation” (1997, pg 25). This article goes on to outline how the Sports Tourism Index (STIX) calculated that nearly 32% of tourism was directly related to sports tourism activities. A study conducted by the North American Convention Tourism
Bureaus reported that sports tourism receipts accounted for roughly 25% of all tourism receipts. Even more specifically it stated that “Dive travel alone accounts for nearly $2 billion a year” (Depley, 1997 pg 33).

(Most information on SCUBA diving and traveling was mostly to do with their ecological impacts, Appendix E gives a brief overview of this area as it relates to this Study)
Methods

Methods and procedures used in the study to collect and analyze the data are described below. These are: Data Origins, Study Site, Study Methods, Sampling Strategy, Survey Instrument, Recoding Data, Analysis, Assumptions and Limitations.

Data Origins

The data used was taken from a previous survey conducted on behalf of the Bermuda Department of Tourism (BDOT) by Total Research Associates (TRA) in Bermuda and Corporate Research Associates (CRA) in Canada. I received permission from the BDOT to obtain the raw data in SPSS (.sav) format from the two companies. The data was a consolidated mass of 2010 and 2011’s Air Exit Surveys. The Survey is APPENDIX B. The methods of the survey are provided below direct from TRA and CRA’s Year-end report for 2010 which will be abbreviated and made reference to by the following YER2010.

Study Site

All survey data was collected at the L.F. Wade International Airport, (Bermuda International Airport), the only airport in Bermuda that offers service to fourteen destinations in Europe, Canada and the U.S., including travel hubs such as London, New York, Miami and Toronto. The airport is served by Air Canada, American Airlines, British Airways, Continental Airlines, Delta Airlines, JetBlue, USA3000 and US Airways (www.bermudaairport.com). It is located in the eastern parishes of the Island, near the Town of St. George.
Study Methods

The data collection methodology employed in this survey conducted by TRA was a random intercept exit interview with those who had visited Bermuda by air. The interviews were collected on-site at the airport on a weekly basis between January 1, 2010 and December 31, 2010. Data was collected by research.bm for the months of January to April 2010, while Total Research Associates took over the data collection beginning in May 2010 (YER 2010). In liaising with the associates from all groups I have been told the Study Methodology was the same for 2011 also, though the Year-end report for 2011 was not available at the time this thesis was being done.

Sampling Strategy

A total of 2,037 exit interviews were completed in 2010. A sample of this size provides a 95 percent overall level of reliability for the population under study, with a ± 2.2 percent margin of error. Simply stated, a sample of this size provides a 95 percent probability that the results for the population overall will not vary by more than ± 2.2 percentage points. (YER2010) Again here the Year-end report for 2011 was not available to retrieve this information, though it has been suggested by the groups that 2011 is the same though the total number of interviews conducted was different, with 2011 having 1996 interviews being completed.
Survey Instrument

A 14 page verbal questionnaire, conducted by a TRA interviewer was used to obtain the data used in this analysis and is attached as APPENDIX B. The interviewer directly transcribed on to the questionnaire to the answers to the questions. The respondents were asked if they were a resident at first and if they were the interview was terminated, if not they were asked to participate in the questionnaire, which they were told would last about 12 minutes. The questionnaire had 52 numbered questions though quite a few were multi-part questions or questions which asked if you participated in or did not participate in an individual activity or event, with lists of these activities or events underneath. More than 52 coded variables were created for SPSS analysis.

Recoding Data

Not all questions were used in the analysis of SCUBA vs Non SCUBA tourists. The questions selected corresponded to the 3 Hypotheses. They were chosen to represent: 1. Expenditures, 2. Activities, and 3. Characteristics. First analysis of the data received by TRA and CRA showed variables that were not coded to suit the analysis of this study, therefore recoding of certain variables took place. The data was altered without affecting its representation. For example in activities each observation/person had a list activities of which they participated in. These lists were transformed into separate variables for each activity. These separate variables were created to represent the specific activity such as Golf where a 1 indicated participation and a 2 indicated non-participation.
Questions

As previously mentioned, not all of the questions were analysed and a handful were chosen to test the three hypotheses. The questions used in this study are below and are referenced from the questionnaire in Appendix B as well as split into their respective categories of Expenditures, Activities, and Characteristics. The responses were used to compute additional variables such as Spending per day (total expenditures divided by the number of days.)

Questions used in analysis
  • Expenditure
    o Q1. In total how many nights did you spend in Bermuda during the visit?
    o Q2. How many individuals, including yourself are in your immediate travel party?
    o Q32A What was the total cost of your vacation package?
    o Q32b. How many individuals are you including in your vacation package?
    o Q34 In total, how much do you estimate your immediate travel party spent in Bermuda including all credit card and cash transactions. This cost should exclude the cost of transportation to Bermuda or the cost of any vacation package? (If all inclusive ask for additional expenditures, but do not include the cost of the vacation package)
    o Q35 How many individuals are you including in this spending total?
    o Q36. Thinking about this total, how much did you spend on the each of the following?
      ▪ Accommodations
      ▪ Meals and beverages in Restaurants (excluding meals plans)
      ▪ Groceries/Liquor
      ▪ Gifts and souvenirs
      ▪ Recreational and leisure activities
      ▪ Transportation while in Bermuda and sightseeing
      ▪ Telecommunications (Internet, calling cards, etc.)
      ▪ Other shopping experiences
These specific questions were chosen to show the how much the tourists are spending and in what areas they are spending. This provides the direct monetary contribution which is the economic impact per visitor. Other variables such as how many nights and how many individuals in the travel party were used to create additional variables as follows:

• Computed Variables for Expenditure not including vacation packages.
  o Spending per Day (Total expenditure divided by number of nights spent)
  o Spending per person (Total expenditure divided by number of individuals in spending total)
  o Spending per person per day (Total expenditure divided by Number of nights spent. Then this total divided by number of individuals in spending total.)

• Computed Variables for Expenditure including vacation packages.
  o Spending per day (Total expenditure plus Vacation package total then divided by the number of nights stayed)
  o Spending per person (Total expenditure plus Vacation package total then divided by the number of individuals in spending total)
  o Spending per person per day (Total expenditure plus Vacation package total then divided by the number of nights stayed. Then this total divided by number of individuals in spending total.)

Variables measuring activities were taken from the following Questions (see Appendix B) and transformed into separate variables.

• Activities/Attractions
  o Q25. Which of the following leisure activities did you personally participate in while in Bermuda?
    ▪ Golf
    ▪ Tennis
    ▪ SCUBA diving
    ▪ Snorkelling
    ▪ Swimming
    ▪ Deep Sea Fishing
- Sailing
- Shopping
- Bus or taxi tour of the Island
- Visit to the beach
- Spa Visit
- Horseback riding

○ Q26. Which of the following attractions did you visit during your trip to our island?
  - Gibbs Hill Lighthouse
  - Town of St. George
  - Horseshoe Bay
  - Crystal Caves
  - Royal Naval Dockyard
  - Spittal Pond Nature Reserve
  - Bermuda Aquarium, Museum & Zoo
  - Museums
  - Bermuda Underwater Exploration Institute
  - Dolphin Quest
  - Heritage Nights/ Market Nights in St. George’s/Festival
  - Harbour Nights in Hamilton
  - Fort St. Catherines
  - Tobacco Bay
  - Botanical Gardens
  - Some type of Live entertainment
  - Destination Dockyard
  - African Heritage Diaspora Trail
  - Uptown Market Culture Fest at Court Street

○ Q26A. While in Bermuda, what types of evening entertainment activities, did you participate in?
  - Dancing
  - Visited bars/ Nightclubs
  - Listened to music at a Club
  - Movie
  - Live Performance (live theatre/ dance)
  - Outdoor Concert
  - Dining/ restaurants
  - None
  - Other

These questions were chosen as they represent a large amount of Bermuda’s staple activities and attractions. Other questions were left out because of their inconsistency and lack of year round availability. Question 25 asking
about activities was used to sort the data and categorize between SCUBA and Non-SCUBA participants.

The last hypothesis being tested is that of characteristics; this included mostly demographic questions, of which all were categorical in nature. These questions are listed below.

- Characteristics
  - QA. To begin in what state or province do you permanently reside?
    - American Resident- Specify State
    - Canadian Resident- Specify Province/Territory
    - European Resident- Specify Country
    - Other- Thank you and terminate
  - Q3. Which of the following best describes your travel party? Are you traveling:
    - By yourself
    - As a couple
    - As a family
    - With friends
    - As a couple with friends
    - As part of a large group
    - Other (Specify)
  - Q5. What was the primary purpose of this visit to Bermuda? Was it:
    - Primarily for business purposes
    - Primarily for leisure
    - Primarily to visit relatives or friends
  - Q28. Where did you stay during your visit?
    - Commercial-Hotel
      - Fairmont Hamilton Princess
      - Elbow Beach
      - Fairmont Southampton
      - Grotto Bay
      - Private Home (paying guest)
      - Other Specify
    - Non Comercial
      - Friends Relatives
      - Private Home (Non-paying guest)
• Time Share Unit
• Military Establishment
• Fractional Ownership
• Vacation Homes (privately owned)
• Other (Specify)

Q45. Into which of the following age categories do you fall?
- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65 or over
- REFUSED

Q46. And what is the highest level of education you have completed?
- Less than high school
- High school or trade school
- University or college degree
- Post-graduate degree
- Other (specify)
- Refused

Q47. In which of the following broad categories did your total household income (before taxes) fall for the last year? Was it:
- Less than $50,000
- At least $50,000, but less than $100,000
- At least $100,000 but less than $150,000
- $150,000 or more in total
- Refused

Q50. (By observation only) Race:
- Black
- White
- Asian
- Other (Specify)
- Unsure

Q51. (By observation only) Gender:
- Male
- Female

The questions related to characteristics were chosen mainly to do with the tourists demographics, as well as a few others in order to obtain a little more insight into what makes up the tourist in Bermuda.
Personal Communications

In addition to the analysis of the data provided by BDOT, an informal interview was conducted with two SCUBA experts previously known to the author. The interviews were done by phone on March 10th 2012 with Heidi Hess (Owner/operator/dive instructor at Tuckers Point Dive Shop) and on March 13th with Christopher Gauntlett (Operator/Dive instructor at Blue Hole diving). The conversations were unstructured and the participants were merely asked to give their overall view of the SCUBA industry in Bermuda with respect to infrastructure, marketing, tourist makeup and any other thoughts or ideas that they thought were important.

The informal telephone conversations took place early evening in Bermuda for Chris and mid-afternoon in Pittsburgh for Heidi. Heidi was currently on vacation in the slow season of SCUBA diving but volunteered her time to help. The conversations were done on speakerphone so I could write quick bullet point notes on piece of paper. These notes have been typed up and included in Appendix C.
Analysis

Expenditures and activities were analysed by independent sample t-tests. The t-tests were defined by a variable called SCUBA, this variable applied a 0 for those who did not participate in SCUBA and a 1 those who did participate in SCUBA respectively. Levene’s test was used to determine if equality of variances could be assumed. Using the appropriate t-tests, the means of variables for SCUBA and Non-SCUBA were tested to see if they were statistically different from another on a two-tailed test. The mean differences between SCUBA and Non-SCUBA as well as the t statistic (t), the degrees of freedom (df), as well as its significance (Sig. (two tailed)) are reported in the results as dollar amounts of expenditures and rates of participation (portions of samples) were tested for significance at the 5% level.

Frequencies were used to obtain the percentage of each group (SCUBA and Non-SCUBA) that participated in each activity. These are easy to interpret and can be directly compared for SCUBA and Non-SCUBA participants. This approach was also taken with other categorical variables describing visitor characteristics.

The Chi squared tests were employed to test whether the categorical variables resembled a chi-squared distribution for SCUBA and Non-SCUBA participants. The Pearson Chi-square value, and the Asymp. Sig. (2-sided) and its significance level were reported in the results. The 5% significance was used to define the critical value for each test.
Assumptions

This study assumes that the sample data is representative of air arrival visitors to Bermuda. Further more it assumes that visitors responded to the questionnaire correctly, and honestly. It also assumes that the responses were taken done by the interviewer accurately and inserted into SPSS accurately.

Limitations

The results of this study are limited to air arrivals to Bermuda. Therefore this is an estimation of air arrival tourists and does not include any other type of visitor to Bermuda, which include cruise tourists and yacht tourists. Cruise tourists make up more than half of the total visitors to Bermuda, though there was little to no information available on them, except the facts and figures from BDOT, showing their average expenditure, which was far below the expenditure of air tourists. Consequently, the group with higher economic impact and readily available data was the one analyzed.
Results

The purpose of this study was to test whether SCUBA visitors as niche market tourists could be considered “high yield” and different in spending characteristics, in particular more spending per day per person. We also wanted to test to see if there was any difference between SCUBA and Non-SCUBA participant activities and characteristics, which could also influence spending and participation habits. The results are broken into 3 sections corresponding to the 3 Hypotheses: Expenditures, Activities and Characteristics. The following discussion will start with Characteristic and then delve in to what the participants did and what they spent. The defining groups of SCUBA and Non-SCUBA will be described as to provide an easy comparison.

Characteristics

Participants in SCUBA(S) were significantly (the chi squared statistic was significant at the 5% level) younger with 48.4% of the sample being under the age of 44, where as Non-SCUBA(NS)only 35.2% of the sample was in this age bracket. Nearly all respondents in both samples where white, with the percentage of the samples being 96.8% (S) and 96.4% (NS), Asian was the second most for SCUBA at 2.2% and Black for Non-SCUBA at 1.9%. There was no significant difference in relation to race. The majority of SCUBA participants had earned an a Post-graduate degree (53.8%), and Non-SCUBA participants highest percentage was in University or college degree (44.3%). This chi squared test for education was significant at the 5% level. Nationality was the same in both samples with American being the top at 46.2% (S), and 58.2% (NS). Also most participants in
both samples were in the $150,000 or more in total for household income at 43% (S) and 42% (NS). Both of these statistics were not significant with the chi square test.

Other defining characteristics besides demographic were used to gain an overall view of whom the participants were. This included the participants’ season of travel, which was significant at the 5% level with the chi squared statistic as well as travel party size. The highest percentage of SCUBA divers arrived in the summer (June- August) at 40.9% and the highest percentage of Non-SCUBA divers arrived in Winter (November- March) at 38%. Travel party size as mentioned prior was also significant, with the largest difference between party sizes being that of traveling as a family with children. SCUBA was at 19.4% and Non-SCUBA at 6%. This was the most noticeable difference with travel party size. Other factors included primary purpose of trip which was not significant, though SCUBA traveled less for business purposes (18.3%), (25.9%NS), and more for visiting friends and relatives (23.7%S), (16.1%NS). Remarkably traveling for leisure for both groups was the same at 58.1%. The average stay for the participants was also taken and because of its non-categorical nature is the only characteristic that was done as a t-test and is provided as table X. Length of stay t statistic was significant at the 5% level. It showed that the average SCUBA participant stayed 9.19 nights and the average Non-SCUBA stayed 6.25 nights. The last statistic used to characterize the groups was type of accommodation, this
was split into 2 groups commercial and Non-Commercial, this chi-squared statistic was significant at the 5% level and showed that 67.7% of SCUBA participants stayed in commercial and 77.8% of Non-SCUBA. (Please refer to table 1 for results on characteristics)
Table 1:
Chi-Squared Test on Characteristics of SCUBA VS Non-SCUBA Tourists of Bermuda

<table>
<thead>
<tr>
<th>Question</th>
<th>Pearson Chi-Square Value</th>
<th>Asymp. Sig. (2-sided)</th>
<th>% of sample</th>
<th>SCUBA</th>
<th>Non SCUBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.363</td>
<td>0.001</td>
<td>Winter (Nov-March)</td>
<td>21.50%</td>
<td>38.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Spring (April-May)</td>
<td>17.20%</td>
<td>15.70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Summer (June-Aug)</td>
<td>40.90%</td>
<td>24.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Fall (Sept-Oct)</td>
<td>20.40%</td>
<td>22.30%</td>
</tr>
<tr>
<td>Travel Party</td>
<td>35.211</td>
<td>0</td>
<td>By yourself</td>
<td>31.20%</td>
<td>32.50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As a couple</td>
<td>44.10%</td>
<td>53.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As a family with children</td>
<td>19.40%</td>
<td>6.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>With friends</td>
<td>1.10%</td>
<td>2.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>As part of a large group</td>
<td>2.20%</td>
<td>0.70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Family</td>
<td>1.00%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Don’t know/ didn’t answer</td>
<td>2.20%</td>
<td>1.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>*</td>
<td>0.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Colleagues/ Business Associates</td>
<td>*</td>
<td>1.90%</td>
</tr>
<tr>
<td>Primary Purpose of Trip</td>
<td>5.303</td>
<td>0.72</td>
<td>Business</td>
<td>18.30%</td>
<td>25.90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Leisure</td>
<td>58.10%</td>
<td>58.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Visit relatives or friends</td>
<td>23.70%</td>
<td>16.10%</td>
</tr>
<tr>
<td>Type of Accommodation</td>
<td>5.303</td>
<td>0.021</td>
<td>Commercial</td>
<td>67.70%</td>
<td>77.80%</td>
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<td></td>
<td></td>
<td></td>
<td>Non-Commercial</td>
<td>32.30%</td>
<td>22.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>American</td>
<td>46.20%</td>
<td>58.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Canadian</td>
<td>23.70%</td>
<td>20.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>European</td>
<td>30.10%</td>
<td>21.50%</td>
</tr>
<tr>
<td>Gender</td>
<td>5.724</td>
<td>0.057</td>
<td>Male</td>
<td>72.00%</td>
<td>59.90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>28.00%</td>
<td>40.10%</td>
</tr>
<tr>
<td>Race</td>
<td>3.453</td>
<td>0.485</td>
<td>Black</td>
<td>*</td>
<td>1.90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>White</td>
<td>96.80%</td>
<td>96.40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asian</td>
<td>2.20%</td>
<td>1.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>*</td>
<td>0.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unsure</td>
<td>1.10%</td>
<td>0.50%</td>
</tr>
<tr>
<td>Age</td>
<td>24.798</td>
<td></td>
<td>10-24yrs</td>
<td>3.20%</td>
<td>2.40%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25-34yrs</td>
<td>23.70%</td>
<td>13.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35-44yrs</td>
<td>21.50%</td>
<td>19.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>45-54yrs</td>
<td>28.00%</td>
<td>27.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55-64yrs</td>
<td>17.20%</td>
<td>24.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>65 or older</td>
<td>3.20%</td>
<td>12.60%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Refused</td>
<td>3.20%</td>
<td>0.60%</td>
</tr>
<tr>
<td>Education</td>
<td>11.135</td>
<td>0.049</td>
<td>Less than High school</td>
<td>*</td>
<td>0.50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High school or Trade School</td>
<td>7.50%</td>
<td>14.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>University or College Degree</td>
<td>36.60%</td>
<td>44.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Post Graduate degree</td>
<td>53.80%</td>
<td>39.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
<td>2.20%</td>
<td>1.10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Refused</td>
<td>*</td>
<td>1.09%</td>
</tr>
<tr>
<td>Household Income</td>
<td>0.733</td>
<td>0.947</td>
<td>Less than $50,000</td>
<td>5.40%</td>
<td>5.90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>At least $50,000 but less than $100,000</td>
<td>21.50%</td>
<td>18.70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>At least $100,000 but less than $150,000</td>
<td>17.20%</td>
<td>19.20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$150,000 or more in total</td>
<td>43.00%</td>
<td>42.00%</td>
</tr>
</tbody>
</table>

* No data for SCUBA tourists

35
Activities/Participation

Activities and participation are discussed below in three groups:

Activities, Attractions, and Evening Entertainment.

Activities

Eleven activities were compared using a t-test. The t statistic was significant at the 5% level for the following 8 activities, and in each case SCUBA participants showed a higher sample participation rate: Tennis, snorkeling, swimming, deep sea fishing, sailing, shopping, and bus or taxi tour (Please refer to Table 2).

The top three biggest differences between the groups were; 1. Snorkeling at 62.4%(S) and 15.7%(NS), 2. Swimming at 88.2%(S) and 53.3% (NS), and 3. Sailing at 19.4%(S) and 5.1% (NS). All others had less than a 10% mean difference. Though the other activities were still significant at the 5% level.
Table 2: T-test Results for SCUBA VS Non-SCUBA Tourists in Bermuda

<table>
<thead>
<tr>
<th>Question</th>
<th>SCUBA Mean</th>
<th>SCUBA SD</th>
<th>Non-SCUBA Mean</th>
<th>Non-SCUBA SD</th>
<th>t-value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snorkeling</td>
<td>1.10%</td>
<td>68.20%</td>
<td>2.20%</td>
<td>6.96%</td>
<td>0.22%</td>
<td>0.03</td>
<td>4031</td>
</tr>
<tr>
<td>Swimming</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Tennis</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Golf</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Deep Sea</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Fishing</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Shopping</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Bus or Taxi</td>
<td>0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
</tr>
<tr>
<td>Other Tour                 0.00%</td>
<td>1.10%</td>
<td>1.80%</td>
<td>1.43%</td>
<td>1.40%</td>
<td>0.02</td>
<td>4031</td>
<td></td>
</tr>
</tbody>
</table>

Note: Levene's test for equality of variances was found to be significant at the 5%
Attractions

Eighteen attractions/events were compared and of those 18, eight were found to have t statistics that were significant at the 5% level. Though in every case except one (visiting Spittal Pond Nature Reserve), SCUBA participants posted higher participation/visitation rates (Please refer to Table 3).

The following 8 attractions/events were significant in visitation or participation (in order from largest mean difference to smallest with S indicating the result for SCUBA and the NS indicating the result for non-SCUBA); 1. Horseshoe Bay, (54.8%, S), (35.5%, NS), 2. Harbour Nights, (24.7%, S), (9.2%, NS), 3. Crystal Caves, (30.1%, S), (15.1%, NS), 4. Gibbs Hill Lighthouse (35.5%, S), (20.8%, NS) and Royal Naval Dockyard, (66.7%, S), (52%, NS), 5. Town of St. George, (57%, S), (42.5%, NS), 6. Tobacco Bay, (24.7%, S), (11.9%, NS), and Fort St. Catherines, (22.6%, S), (11.9%, NS).

It is also worth noting that differences in participation rates at Dolphin Quest and Botanical were also very close to the 5% level at 0.054 and 0.068 respectively.
<table>
<thead>
<tr>
<th>Attractions</th>
<th>No SCUBA DATA</th>
<th>SCUBA DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No difference detected at the 5%</strong></td>
<td>0%</td>
<td>0.34%</td>
</tr>
<tr>
<td><em>Lupin Cliffs</em></td>
<td>0.10%</td>
<td>0.0%</td>
</tr>
<tr>
<td><em>African Diaspora Trail</em></td>
<td>1.10%</td>
<td>3.10%</td>
</tr>
<tr>
<td><em>Desert Island Dockyard</em></td>
<td>4.30%</td>
<td>6.20%</td>
</tr>
<tr>
<td><em>Entertainment</em></td>
<td>**</td>
<td>1.00%</td>
</tr>
<tr>
<td><em>Some type of Live</em></td>
<td>1.40%</td>
<td>0.60%</td>
</tr>
<tr>
<td><em>Botanical Gardens</em></td>
<td>1.80%</td>
<td>1.20%</td>
</tr>
<tr>
<td><em>Ko True Bay</em></td>
<td>2.40%</td>
<td>2.40%</td>
</tr>
<tr>
<td><em>Fort St. Catherine</em></td>
<td>2.20%</td>
<td>2.60%</td>
</tr>
<tr>
<td><em>Harbour Nighs</em></td>
<td>9.20%</td>
<td>3.42%</td>
</tr>
<tr>
<td><em>Nights in St. Georges</em></td>
<td>1.30%</td>
<td>0.0%</td>
</tr>
<tr>
<td><em>Eighth Night</em></td>
<td>2.60%</td>
<td>1.34%</td>
</tr>
<tr>
<td><em>Exhibition Institute</em></td>
<td>7.50%</td>
<td>9.60%</td>
</tr>
<tr>
<td><em>Bermuda Underwater</em></td>
<td>9.20%</td>
<td>1.62%</td>
</tr>
<tr>
<td><em>Bermuda Aquarium &amp; Reserve</em></td>
<td>1.37%</td>
<td>6.80%</td>
</tr>
<tr>
<td><em>Spittal Pond Name</em></td>
<td>6.00%</td>
<td>4.60%</td>
</tr>
<tr>
<td><em>Royal Naval Dockyard</em></td>
<td>9.00%</td>
<td>5.20%</td>
</tr>
<tr>
<td><em>Coral Cove</em></td>
<td>0.10%</td>
<td>1.10%</td>
</tr>
<tr>
<td><em>Horseshoe Bay</em></td>
<td>7.50%</td>
<td>5.30%</td>
</tr>
<tr>
<td><em>Cave of the Queen</em></td>
<td>5.10%</td>
<td>2.60%</td>
</tr>
<tr>
<td><em>Cibou Hill Lighthouse</em></td>
<td>3.50%</td>
<td>2.08%</td>
</tr>
</tbody>
</table>

Table 3: Results for Attractions for SCUBA VS Non-SCUBA Tourists in Bermuda.
Evening Entertainment

Evening entertainment activities included 6 activities and 2 of these were found to have t statistics that were significant at the 5% level: Visited Bar/Nightclubs, (58.1%, S), (46.1%,NS), and Dancing, (18.3%,S), (7%,NS). (See Table 4). Participation rates by SCUBA and Non-SCUBA visitors in all other evening entertainment/nighttime activities were not significant at the 5% level and all had a maximum mean difference of 5%.

Trip Expenditures

Expenditures were analyzed in two sections. This first section analyzed expenditures directly recorded from the participants, and not recoded in any way. The second section analyzed expenditures per person and expenditures per person per day.

Out of the 9 the categories including Total Expenditure, 3 had t statistics that were significant at the 5% level. These categories were (in order of highest mean difference): 1. Meals and Beverages, ($829, S), ($568,NS), 2. Transportation, ($211,S), ($130,NS). 3. Recreation and Leisure, ($347,S), ($96,NS) (See Table 5). Other expenditure categories were
Table 4: T-Test for Evening Entertainment for SCUBA VS Non-SCUBA Tourists in Bermuda

<table>
<thead>
<tr>
<th>Activity</th>
<th>T-Test (Tail)</th>
<th>Sig. (Z)</th>
<th>df</th>
<th>Mean Difference</th>
<th>SCUBA Mean</th>
<th>Non-SCUBA Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor Concert*</td>
<td>0.182</td>
<td></td>
<td></td>
<td></td>
<td>2.44%</td>
<td>4.30%</td>
</tr>
<tr>
<td>Live Performance*</td>
<td>1.016</td>
<td></td>
<td></td>
<td></td>
<td>0.71%</td>
<td>3.00%</td>
</tr>
<tr>
<td>Movie*</td>
<td>1.14</td>
<td></td>
<td></td>
<td></td>
<td>1.48%</td>
<td>3.40%</td>
</tr>
<tr>
<td>Club*</td>
<td>1.999</td>
<td></td>
<td></td>
<td></td>
<td>1.29%</td>
<td>8.60%</td>
</tr>
<tr>
<td>Music at a Club*</td>
<td>0.023</td>
<td></td>
<td></td>
<td></td>
<td>9.22%</td>
<td>9.00%</td>
</tr>
<tr>
<td>Visited Bar/Nightclubs*</td>
<td>0.023</td>
<td></td>
<td></td>
<td></td>
<td>0.00%</td>
<td>4.60%</td>
</tr>
<tr>
<td>Visited Nightclubs*</td>
<td>1.839</td>
<td></td>
<td></td>
<td></td>
<td>1.83%</td>
<td>1.30%</td>
</tr>
</tbody>
</table>

Note: *Levene’s test for equality of variances was found to be significant at the 5% level.
Table 5: T-Test Results for Expenditures and its Sub-categories for SCUBA VS Non-SCUBA Tourists in Bermuda

<table>
<thead>
<tr>
<th>Category</th>
<th>SCUBA Mean</th>
<th>Non-SCUBA Mean</th>
<th>T-Statistic</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Shopping</td>
<td>$123.59</td>
<td>$120.78</td>
<td>2.34</td>
<td>0.02</td>
</tr>
<tr>
<td>Transportation</td>
<td>$117.65</td>
<td>$115.87</td>
<td>1.23</td>
<td>0.23</td>
</tr>
<tr>
<td>Recreation and Leisure</td>
<td>$95.63</td>
<td>$93.72</td>
<td>1.12</td>
<td>0.26</td>
</tr>
<tr>
<td>Gifts and Souvenirs</td>
<td>$58.43</td>
<td>$56.54</td>
<td>0.67</td>
<td>0.50</td>
</tr>
<tr>
<td>Accommodations</td>
<td>$3.72</td>
<td>$3.80</td>
<td>0.67</td>
<td>0.50</td>
</tr>
<tr>
<td>Meals and Beverages</td>
<td>$3.47</td>
<td>$3.54</td>
<td>0.23</td>
<td>0.83</td>
</tr>
<tr>
<td>Vacation Packages</td>
<td>$1.22</td>
<td>$1.33</td>
<td>0.56</td>
<td>0.58</td>
</tr>
<tr>
<td>Total Expenditure (not inclusive of)</td>
<td>$33.83</td>
<td>$34.72</td>
<td>0.23</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Note: * T-Test for equality of variances was found to be significant at the 5% level and equal variances was not assumed in the T-Test.
not significantly different at the 5% level but in all cases SCUBA participants spent more on average. Total expenditures by SCUBA visitors were $3,347 and by Non-SCUBA visitors were $2,474 for a mean difference of $873. These total expenditures do not include the price of any vacation package. This will be addressed in the following sections.

Per Person and Per Person Per Day Expenditures

To show more comparable spending patterns Total expenditure (not inclusive of vacation packages) was divided by a combination of nights stayed and number of people in the travel party. Spending per person was total expenditure divided by number of people. Spending per day was total expenditure divided number of nights stayed and spending per day per person was total expenditure divided by number of nights and number of people. The results were as follows; Spending Per Person ($1,494,S), ($1,121,NS), (this was the only t statistic to be significant at the 5% level). Spending per Day, ($453,S), ($424,NS) was larger for SCUBA, but not significantly. Lastly Spending Per Day Per Person, ($221,S), ($250,NS) was lower for SCUBA than non-SCUBA (but not significantly). (See Table 6)
Table 6: T-Test Results for Computed Expenditure for SCUBA VS Non-SCUBA Tourists.

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Mean (per person)</th>
<th>Mean (per person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCUBA</td>
<td>$1,494</td>
<td>$453</td>
<td>$221</td>
</tr>
<tr>
<td>Non-SCUBA</td>
<td>$1,121</td>
<td>$424</td>
<td>$250</td>
</tr>
<tr>
<td>Difference</td>
<td>$292.76</td>
<td>2.166</td>
<td>0.129</td>
</tr>
<tr>
<td>t</td>
<td>89.8</td>
<td>0.033</td>
<td>0.271</td>
</tr>
<tr>
<td>df</td>
<td>3982</td>
<td>3926</td>
<td></td>
</tr>
<tr>
<td>Sig (2 tailed)</td>
<td>0.758</td>
<td>0.033</td>
<td></td>
</tr>
</tbody>
</table>

Note: *Levene’s test for equality of variances was found to be significant at the 5% level.*
Table 7 refers to the adjusted totals, which include the vacation packages in total expenditures, spending per day, spending per person and spending per day per person. There was statistical difference in the total expenditure findings and the mean differences were all roughly the same as when packages were not included.
Table 7: T-Test Results for Computed Expenditures Inclusive of Vacation Packages for SCUBA VS Non-SCUBA Tourists in Bermuda

Note: Levene's test for equality of variances was found to be significant at the 5% level.

<table>
<thead>
<tr>
<th>Time</th>
<th>Total Expenditure per Person*</th>
<th>Total Expenditures per day</th>
<th>Total Expenditure (all tourists) only</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.333</td>
<td>$9.969</td>
<td>$2.935</td>
<td>$2.93</td>
</tr>
<tr>
<td>0.382</td>
<td>0.338</td>
<td>0.332</td>
<td>0.338</td>
</tr>
<tr>
<td>0.222</td>
<td>1.222</td>
<td>587.3.15</td>
<td>587.315</td>
</tr>
<tr>
<td>0.38</td>
<td>0.878</td>
<td>0.841</td>
<td>0.841</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCUBA</th>
<th>SCUBA</th>
<th>Difference Mean</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.936</td>
<td>$4.936</td>
<td>$0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th></th>
<th>Sig. (2)</th>
<th>DL</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-Test</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion and Conclusion

The purpose of this Study is to test whether SCUBA and Non SCUBA tourists are statistically and significantly different from one another with respect to their expenditures, activities and characteristics in order to determine whether this niche is a viable market for Bermuda tourism development. The three statistical hypotheses were:

- H1: There is a difference in expenditures between SCUBA and Non-SCUBA tourists.
- H2: There is a difference in activities participated in between SCUBA and Non-SCUBA tourists.
- H3: There is a difference in characteristics between SCUBA and Non-SCUBA tourists.

Discussion

After reviewing the data and hypotheses, it shows that each hypothesis is partially supported.

Average expenditures in nine expenditure categories and total were studied. In addition expenditures per day, per person, and per day per person were examined. Of these 11 variables tested, 4 were shown to have significant differences between SCUBA and non-SCUBA visitors: group expenditures on meals and beverages, recreation and leisure, transportation and total spending per person. In all spending categories, SCUBA participants spent more than Non-SCUBA.
Overall SCUBA participants spent more in all categories, with the largest in monetary total (besides total expenditure) being that or Meals and Beverages. Here SCUBA participants spent $260 more than their Non-SCUBA counterparts at $1,507 for their total trip. This would support the statements of Chris Gauntlett the SCUBA expert interviewed, stating that the divers that he encounters always ask where the best places to eat and drink are, he even referred to them as more of a going out crowd. (C. Gauntlett, personal communication, March 12th, 2012).

Since SCUBA participants either have to rent equipment, and fill tanks even if they brought their own gear tanks, and since most pay boat fees these total expenditures are not surprising.

Participation in 14 activities was also compared for differences between SCUBA and non-SCUBA visitors. Results showed that SCUBA visitors scored higher than Non-SCUBA visitors compared based on all activities, seven were significant at the 5% level: Tennis, Snorkeling, Swimming, Sailing, Shopping, Visit the Beach, and Spa Visit.

Participation in 18 Event and Visitation to certain areas of the Island were tested. Of these participation levels were found to be significantly higher for SCUBA visitors at the 5% level for 7 of these: Gibbs Hill Lighthouse, Town of St. George, Horseshoe Bay, Crystal Caves, Royal Naval Dockyard, Harbour Nights, Fort St. Catherines, and Tobacco Bay.

Tests of 6 Evening Entertainment or Nighttime Activities showed that 2 were significantly higher for SCUBA participants: Dancing and Visited Bar/Nightclubs.
Ten visitor characteristics were tested for differences. Of these 6 were significant at the 5% level: Age, Season of travel, Education, Length of Stay, Travel party size, and Type of Accommodation.

SCUBA participants were statistically younger than Non-SCUBA participants, with nearly half of its sample being under 44 years old (48.4%); Non-SCUBA had only 35.2% in this same bracket. SCUBA participants were more likely to visit Bermuda in the summer season (June-August) as 40.9% visited during this time. This would also be the opportune time to participate in recreation activities, and could explain the higher participation rates in activities and also expenditures on recreation and leisure.

SCUBA participants were more highly educated with over half of its population having obtained a post graduate degree, though the test for household income was not significantly different from Non-SCUBA participants, with over 60% in each sample having a declared annual household income of over $100,000.

The average length of stay for a SCUBA participant was 68% longer than Non-SCUBA at 9.25 days. This again could account for the higher spending and participation rates, as they have more time. SCUBA tourists also traveled more in the summer season than any other at 40.9%, where as Non-SCUBA tourists traveled more in the winter season with its highest percentage being 38%. Season of Travel produced a statistically significant chi-squared score at the 5% level.

In Travel Party Size, there was also a significant chi squared score, though was not to do with the highest percentage of SCUBA and Non-SCUBA tourists
travel party size. The statistics actually showed a large difference in traveling as a family with children. SCUBA tourists were at 19.4% and Non-SCUBA were at 6% even. SCUBA tourists were 3 times more likely to travel as a family with children.

The type of Accommodation that was used, commercial or non-commercial, was also significant at the 5% level on the chi squared test. Showing that the bulk of the two groups did stay in commercial, thought SCUBA was 10% higher in non-commercial accommodations than that of Non-SCUBA tourists.

There was a also a preliminary test done on Aquatic vs Non-Aquatic tourists, were the activities which defined them were selected either to Aquatic or Non Aquatic. They were then tested against each other in a T-test (appendix D) to see if there was a any difference in this group. If the preliminary test showed any differences then a more depth analysis would have been suggested. Though the test of Aquatic vs Non-Aquatic Tourists showed to be no different from SCUBA and Non-SCUBA tourists.

Conclusion

In conclusion we have shown that each hypothesis has been partially supported, having variables that are significant in each are; Trip Expenditures, Activities, and Characteristics. The idea that SCUBA tourists were high-yield was not supported as the test of Spending Per Person Per Day was not significant at the 5% level. This was picked because spending for high yield is supposed to be more per capita. Also Average household income was not significantly different as originally thought, the highest percentages for both groups were in the
More than $150,000 range. Though this could be attributed to Bermuda’s exclusivity and overall expensiveness, as well as that there was not an income bracket that was higher than $150,000. Therefore SCUBA tourists could not be higher in income because both groups have the most amounts of people in the highest bracket. Future research might expand the income brackets in order to better segment tourists.

The results did support the literature that on average SCUBA tourist were younger, more educated and of wealth (Tapsuwan, 2008. Novelli, 2005). Though as mentioned before the groups were not significantly different in income though they were off higher than average income for the countries they visited from and also for Bermuda (C.I.A. World Fact Book). SCUBA tourists overall spending was higher, though this was possibly due to the fact that they stayed on average about 3 days longer than the Non-SCUBA tourists. Research into what makes SCUBA tourists stay longer would be of importance, as the results have shown the longer a tourist stays the more money they seem to spend. Also possibly exploring other Niche markets to see if this trend is present throughout, would help to understand and guide Bermuda in future tourism developments, by showing what areas to focus on in order to achieve maximum expenditure from its tourists.

SCUBA tourists greater trip expenditure overall could also be linked to their high participation rates in all activities as well. It would be logical to assume that the more places they visited and events they attended, or activities they participated in, the more money would be spent. Again research needs to be
conducted in the future, as to why SCUBA tourists participate more and also if it is present throughout other niche markets. If this is done, then the same tactics could be employed to other tourism segments in order to achieve better participation rates and therefore possibly more revenue generated.

The higher participation rate for SCUBA tourists in activities especially evening activities may also be linked with the lower age bracket that makes up the majority of the SCUBA tourists. The lower age and yet of the same income bracket is also of interest, as it would indicate that the young and wealthy prefer to participate in SCUBA. This could be useful finding in the growing of tourists for Bermuda as, the younger the visitor the more time they have or returning to the island.

Tourists generally return to a destination when they are satisfied with its offerings and if any other future research were to be conducted an analysis of SCUBA tourists satisfaction could be of use to future marketing for Bermuda.

Implications for Tourism Development

Bermuda is currently aiming its marketing effort at what the Bermuda Department of Tourism classifies as a “Luxury Market”, and thus tailors its product to suit the needs of this market. As part of the “Luxury Market” marketing effort, Bermuda targets air tourist because the air tourist have been reported to far outspend their cruise counterparts. Bermuda is currently in decline with regards to its tourism numbers, more specifically their air tourists. Thus the air tourists are of more interest to Bermuda in regards to revenue generated. These tourists are also of a higher than average income and are often classified as
“Luxury tourists” because of this. The luxury market is quite broad and has no standard definition, although it is a macro market in regards to demographic analysis, meaning that there are numerous markets within what is deemed a luxury market. Bermuda could explore more deeply into these markets, which include the area of niche markets. This leads to a first recommendation Bermuda should further segment its current target market into niche categories such as; sports/adventure, spa, nature, golf tourism as well as many others to better attract and target these potential high spending tourists. In depth analysis of these markets would help the Bermuda Department of Tourism as well as other tourism vendors to better understand who these tourists are, and in turn be able to market accordingly. This report on niche tourism and more specifically SCUBA tourists could be used as a template to analyze these other micro markets.

Niche and micro markets, and the tourists that participate in it, have been shown (as mentioned in literature review) to be generally of higher than average income as well as spending overall; this report supports this in relation to SCUBA diving (a niche market). The research and analysis of this market helped to properly outline and define the participants in the SCUBA market. With this information and demographic outline, more specific advertising and marketing would be of great benefit to Bermuda. A result found in this research was that SCUBA tourists had higher participation rates in just about all categories of activities, and evening entertainment. These activities were mostly centered on nature based tourism attractions, such as sailing, fishing, visiting parks, swimming etc. This leads to a second recommendation.
Bermuda needs to cross-market in order to; 1. Achieve a greater number of SCUBA tourists, 2. Promote and increase participation in other activities and 3. To capture potential tourists that might not have been aware of the activities available to them. An example of cross marketing for Bermuda with regards to SCUBA, would mean not to solely advertise SCUBA diving in the advertisements, but instead include and market the other activities and areas that were of high interest to this demographic such as other nature based activities. An example for this would be advertising in a magazine such as “SCUBA World” and also showcasing Bermuda’s sailing or fishing activities as well as its World class SCUBA diving.

Bermuda’s SCUBA market has not only been hailed as World class, but also as the “Ship Wreck” capital of the Atlantic, if not the world, and these wrecks are available all year round. This leads to a third recommendation Bermuda should market its winter season to SCUBA divers. Currently Bermuda sees the highest percentage of its SCUBA tourists during the summer months, this shows an area for growth in other seasons, especially Bermuda’s slower season of winter. SCUBA diving in the winter as reported in the personal communications produces far greater visibility in the ocean than that of any other season. Information such as this again could be used to help increase this niche market throughout its slower season. Other aspects that could also promote Bermuda’s winter SCUBA diving could the islands ease of accessibility and close proximity to the United States. Bermuda tourism could take advantage of this by advertising in our gateways cities that receive frigid temperatures or snow. Bermuda could
not only capitalize on its increased visibility in its waters during the off season, but also the fact that its gateways cities experience much harsher winters.

In closing, Bermuda needs to explore more deeply its current market of “Luxury Tourist” and critically analyze each one in order to gain more insight into its markets and more specifically each area's demographic makeup (as demonstrated in this paper with SCUBA diving). With this information a more targeted marketing scheme can be developed and programs can be created which better suit the needs and wants of each specific market. Cross marketing needs to also increase in order to showcase and increase participation rates Bermuda’s activities. These activities or markets also need to be researched thoroughly and areas for improvement of diversification should be identified, in order to increase Bermuda’s tourism numbers as well as its revenue. Ideas such as the winter SCUBA diving could be identified and used to promote the island as a year round destination.
References


Worldwide Corporate Statistics 2010, March 2011, PADI (Professional Association of Diving Instructors)-

APPENDIX A

IRB APPROVAL LETTER
The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(4).

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.
APPENDIX B

BDOT QUESTIONNAIRE
### Bermuda Department of Tourism – EXIT SURVEY
#### 2010 Air Travelers' Survey
BEGINNING April 20, 2010 - FINAL

<table>
<thead>
<tr>
<th>Date:</th>
<th>Day of Week: MON TUE WED THU FRI SAT SUN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Interviewer:</td>
<td>Interview Start Time:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Airline/Flight #:</td>
<td>Length of Interview:</td>
</tr>
</tbody>
</table>

Good Morning/Afternoon, my name is __________________________ and I work with the Bermuda Department of Tourism. Are you currently a resident of Bermuda? **IF YES, THANK AND TERMINATE** We are conducting a brief survey of visitors to the Island like yourself regarding your experiences while visiting Bermuda. Would you be willing to answer a few questions about your visit to our Island? (If asked, survey should take about 12 minutes) If unsure ask if respondent is 18 years or older.

Q0. To begin, have you completed a survey at the Bermuda airport upon departure during one of your previous trip to Bermuda within the past twelve months?
   - Yes ................................................................. 1 THANK & TERMINATE
   - No ................................................................. 2 CONTINUE

QA. To begin, in what country, state or province, do you permanently reside?

| 1 | American resident - Specify State: |
| 2 | Canadian resident - Specify Province/Territory: |
| 3 | European resident - Specify Country: |
| 4 | Other THANK AND TERMINATE |

1. In total, how many nights did you spend in Bermuda during this visit? [RECORD NUMBER OF NIGHTS]

2. How many individuals, including yourself, are in your immediate travel party? [RECORD NUMBER OF INDIVIDUALS]

3. Which of the following best describes your travel party? Are you travelling:
   - By yourself ................................ .................. 1 SKIP TO Q4a
   - As a couple ..................................................... 2 SKIP TO Q4a
   - As a family with children .................................... 3 SKIP TO Q4a
   - With friends .................................................... 4 SKIP TO Q4a
   - As a couple with friends ..................................... 5 SKIP TO Q4a
   - As part of a large group ..................................... 6 CONTINUE
   - Other [SPECIFY: ________________________________] .... 9 SKIP TO Q4a
3A. (IF PART OF A LARGE GROUP IN Q 3)
Did your group travel to Bermuda for:

- A corporate meeting ........................................... 1
- A corporate incentive meeting ................................. 2
- An association meeting / conference, or .................. 3
- Social event ....................................................... 4
- Other [SPECIFY: ____________________________] .......... 9

4A. When was the last time before this current trip, that you visited Bermuda, if ever? DO NOT READ

- Never visited before/First trip ................................ 1
- Within the past year ............................................. 2
- At least a year ago, but less than 3 years ago (1-3) ......... 3
- At least 3 years ago, but less than 5 years ago (3-5) ...... 4
- At least 5 years ago, but less than 10 years ago (5-10) .. 5
- Ten years ago or longer (10+) ................................ 6

4B. DELETED

5. What was the primary purpose of this visit to Bermuda? Was it:

- Primarily for business purposes ............................ 1
- Primarily for leisure ............................................. 2
- Primarily to visit relatives or friends ....................... 3

IF Business ASK Q6-Q11

CONTINUE
GO TO Q12

6. How many, if any, extra nights did you add to your business trip for leisure purposes?

[RECORD NUMBER OF NIGHTS]

7. Including this trip, how many times have you visited Bermuda primarily for business purposes in the past twelve months?

[RECORD NUMBER OF TRIPS INCLUDING CURRENT VISIT]

8. Do you work for a company that has operations in Bermuda?

- Yes ....................................................................... 1
- No ...................................................................... 2

9. Did you visit Bermuda to specifically attend a conference?

- Yes ..................................................................... 1
- No ...................................................................... 2

CONTINUE
SKIP TO Q10

9A. And approximately, what was the conference registration fee for yourself?

$ ........................................................................... 98

[RECORD AMOUNT]

- Don’t know/No answer ......................................... 98
10. What, if anything, do you like best about doing business in Bermuda?
   [DO NOT READ – CIRCLE ALL THAT APPLY]
   - Friendly atmosphere ......................................................... 1
   - The weather ......................................................................... 2
   - Beauty / nice place to visit .................................................. 3
   - Business climate ............................................................... 4
   - Other (specify: ________________________________) .......... 88

11. And what, if anything, do you like least about doing business in Bermuda?
   [DO NOT READ – CIRCLE ALL THAT APPLY]
   - Costs .................................................................................. 1
   - Access problems ................................................................. 2
   - Nothing ............................................................................... 3
   - Other (specify: ________________________________) .......... 88

BUSINESS TRAVELERS (IF Q5 = 1) SKIP TO QUESTION #25

LEISURE TRAVELERS AND FRIEND / FAMILY VISITORS ONLY THIS SECTION (IF Q5 = 2 OR 3)

I would like to ask you about your decision to choose Bermuda as a place to visit.

12. What factors did you consider before choosing Bermuda as a vacation destination?
   [DO NOT READ: CIRCLE ALL THAT APPLY – PROBE: ANY OTHER FACTORS?]
   - Proximity of location ......................................................... 1
   - Climate / weather ............................................................... 2
   - Visiting family / friends ..................................................... 3
   - Previous experience .......................................................... 4
   - Beauty of island ............................................................... 5
   - Hospitality / Friendly people ............................................. 6
   - Other (specify: ________________________________) .......... 88

13. What, if anything, exceeded your personal expectations about Bermuda as a vacation destination?
   [DO NOT READ – CIRCLE ALL THAT APPLY – PROBE: ANYTHING ELSE?]
   - Hospitality / friendly people ............................................. 1
   - Beauty of Island ............................................................... 2
   - Beaches / ocean ............................................................... 3
   - Cleanliness of Island ......................................................... 4
   - Weather ............................................................................... 5
   - Other (specify: ________________________________) .......... 88

14. And what, if anything, did not meet your expectations about Bermuda?
   [DO NOT READ; CIRCLE ALL THAT APPLY; PROBE: ANYTHING ELSE?]
   - Nothing/ don't know ......................................................... 1
   - Poor weather ...................................................................... 2
   - Cost / was expensive ......................................................... 3
   - Other (specify: ________________________________) .......... 88
15. Prior to deciding to visit Bermuda, do you recall hearing or seeing any advertising about our Island?
   - Yes ................................................. 1  **CONTINUE**
   - No .................................................. 2  **SKIP TO Q17**

   **IF Q15 = YES ASK:**

18A. Where do you recall hearing or seeing any advertising about Bermuda? PROBE: ANYTHING ELSE?
   **DO NOT READ RESPONSES**
   - Television ........................................ 1
   - Radio ............................................. 2
   - Newspaper ....................................... 3
   - Magazines ....................................... 4
   - Direct mail material/brochures ............. 5
   - Internet/Website ................................. 6
   - Other [SPECIFY] .................................. 9

17. Did you visit the Bermuda Department of Tourism's Official website (Bermudatourism.com) prior to your decision to visit the Island?
   - Yes .................................................. 1  **CONTINUE**
   - No .................................................... 2
   - Don't know / unsure ............................ 3  **SKIP TO Q19**

   **ASK IF YES to Q17**

19. How would you describe Bermuda's website? Would you say the website was better, about the same, or worse than those for other vacation destinations?
   - Better ............................................. 1
   - Same ............................................. 2
   - Worse ............................................ 3
   - Don't Know/I am not familiar with others 8

19. Did you call the 1-800 toll free number for Bermuda to request information for this visit?
   - Yes .................................................. 1  **CONTINUE**
   - No .................................................... 2

   **IF Q19 = YES ASK Q20**

20. How satisfied were you with the manner in which your request was handled? Were you:
   - Completely satisfied ............................... 1
   - Mostly satisfied ................................... 2
   - Mostly dissatisfied ............................... 3
   - Completely dissatisfied ......................... 4
   - Neither satisfied nor dissatisfied .......... 5
   - Don't know/No answer .......................... 8
20A. While in Bermuda, which of the following Visitor Information Centres, also known as VICs, did you visit? READ LIST OF RESPONSES

<table>
<thead>
<tr>
<th>Location</th>
<th>Yes did visit this location</th>
<th>No did not visit this location</th>
<th>Don't know / Can't recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Hamilton Ferry Dock on Front Street</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. St. George's Water Street Plaza</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>c. Dockyard Gazebo</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

If answer to all (a through c) is "NO" OR "DON'T KNOW / CAN'T RECALL" THEN SKIP TO Q21

20B. In general, how satisfied were you with the overall service provided at the Visitor Information Centres?

- Completely satisfied
- Mostly satisfied
- Mostly dissatisfied
- Completely dissatisfied

VOLUNTEERED
- Neither satisfied nor dissatisfied
- Don't know/No opinion

21. Thinking about your choice of Bermuda as a vacation destination, how important was each of the following factors in your decision. Using a scale of critically important, important but not critical, not that important, or not at all important to your decision how would you rate the following?

READ AND ROTATE ORDER (start at x'd choice):

- a. Type of recreational activities available
- b. Quality of recreational activities available
- c. Night life entertainment
- d. Shopping experience
- e. Climate or weather considerations
- f. Cultural and historical attractions
- g. Cuisine or dining experience
- h. Personal safety
- i. Affordability of the destination
- j. Proximity of location
- k. Natural scenic environment
- l. Hospitality of the people
- m. Beaches and water activities
- n. Festivals or special events
- o. Seclusion/relaxation factor
- p. Cost of airfare
- q. Type of sporting activities available
- r. Quality of sporting activities available

22. Overall, how satisfied were you with your visit to Bermuda? Would you say you were completely satisfied, mostly satisfied, mostly dissatisfied, or completely dissatisfied?

- Completely satisfied
- Mostly satisfied
- Mostly dissatisfied
- Completely dissatisfied
- Neither satisfied nor dissatisfied (DO NOT READ)
23. ASK ALL LEISURE VISITORS - What would have made your visit to Bermuda (even) more satisfying?  
DO NOT READ – CIRCLE ALL THAT APPLY

- Better weather
- A longer stay
- Less expensive/lower cost
- Nothing
- Don’t know / no answer
- Other (Specify:)

23A. [ONLY IF RESPONSE TO Q23 IS "LONGER STAY", ASK] Why did you not plan to stay longer in Bermuda?
DO NOT READ RESPONSES

- Lack of time/limited vacation time
- Too expensive
- Other commitments
- Other (Specify:)

24. And how satisfied were you with each of the following factors with regard to your visit to Bermuda? Were you completely satisfied, mostly satisfied, mostly dissatisfied, or completely dissatisfied with [READ AND ROTATE].

<table>
<thead>
<tr>
<th>READ AND ROTATE ORDER</th>
<th>READ (Show scale card)</th>
<th>Volunteered (DO NOT READ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Start at x’d choice):</td>
<td>Completely Satisfied</td>
<td>Mostly Satisfied</td>
</tr>
<tr>
<td>a. Type of recreational activities available........</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Quality of recreational activities available........</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Night life entertainment.............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Shopping experience ....................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e. Climate or weather considerations........................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f. Cultural and historical attractions ..................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g. Cuisine or dining experience ................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>h. Personal safety ........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>i. Affordability of the destination ......................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>j. Proximity of location ...................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>k. Natural scenic environment ................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>l. Hospitality of the people...............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>m. Beaches and water activities ..........................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>n. Festivals or special events ............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>o. Seclusion/relaxation factor ............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>p. Cost of airfare .........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>q. Type of sporting activities available ..................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>r. Quality of sporting activities available ............</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
ASK EVERYONE: (BUSINESS AND LEISURE TRAVELLERS)

25. Which of the following leisure activities did you personally participate in while in Bermuda? READ LIST

   PLACE X BY EACH MENTION (Code N)

   a. Golf
   b. Tennis
   c. Scuba diving
   d. Snorkelling
   e. Swimming
   f. Deep sea fishing
   g. Sailing
   h. Shopping
   i. Bus or taxi tour of the Island
   j. Visit to the beach
   k. Spa visit
   l. Horseback riding

26. And which of the following attractions did you visit during your trip to our Island? READ LIST

   PLACE X BY EACH MENTION

   a. Gibbs Hill Lighthouse
   b. Town of St. George’s
   c. Horseshoe Bay
   d. Crystal Caves
   e. Royal Naval Dockyard
   f. Spittal Pond Nature Reserve
   g. Bermuda Aquarium, Museum & Zoo
   h. Museums
   i. Bermuda Underwater Exploration Institute (BUEI)
   j. Dolphin Quest
   k. Heritage Nights / Market Nights in St. George’s/Festival
   l. Harbour Nights in Hamilton
   m. Fort St. Catherines
   n. Tobacco Bay
   o. Botanical Gardens
   p. Some type of live entertainment
   q. Some type of live entertainment
   r. Destination Dockyard
   s. African Heritage Diaspora Trail
   t. Uptown Market Culture Fest at Court Street

26A. While in Bermuda, what types of evening entertainment activities, if any, did you participate in? PROBE: Any others? CODE ALL THAT APPLY

DO NOT READ RESPONSES – DO NOT PROVIDE SUGGESTIONS

- Dancing ................................................................. 1
- Visited bars / nightclubs ........................................... 2
- Listened to music at a Club ........................................ 3
- Movie ....................................................................... 4
- Live performance (live theatre / dance) ......................... 5
- Outdoor concert ....................................................... 6
- Dining / restaurants ............................................... 7
- None ................................................................. 8
- Other (________________________________________________) 98
26AA. Have you heard anything about any of the following evening events currently held in Bermuda?

<table>
<thead>
<tr>
<th>Event</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SalsaMania Latin Nights Out...........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Gombey Saturdays in the Park.............................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Taste of Bermuda Calypso Sundays........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Made in Bermuda Tour....................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e. Destination Dockyard.....................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f. Photographic Expedition &amp; African Diaspora Heritage Trail Tour....</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g. St. George's Market Nights...............................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>h. The Confederacy Rogues &amp; Rum Runners Tour..............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>i. St. Peter's Church Tour..................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>j. Sizzling Gombey Tuesday at Clearwater..................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>k. Globe Hotel.......................................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>l. Tucker House Museum.......................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>m. Tales from an Old Town (Story Telling)....................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>n. Talented Teens &amp; Music Legend Series....................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>o. Bermuda National Gallery..................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>p. Live Entertainment in King's Square.....................................</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

26B. (ASK ONLY FOR EVENTS WHERE YES WAS INDICATED IN Q 26AA) And did you attend any of the same following evening events during this trip?

<table>
<thead>
<tr>
<th>Event</th>
<th>Yes Attended</th>
<th>No Did not attend</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. SalsaMania Latin Nights Out...........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Gombey Saturdays in the Park.............................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Taste of Bermuda Calypso Sundays........................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Made in Bermuda Tour....................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>e. Destination Dockyard.....................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>f. Photographic Expedition &amp; African Diaspora Heritage Trail Tour....</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>g. St. George's Market Nights...............................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>h. The Confederacy Rogues &amp; Rum Runners Tour..............................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>i. St. Peter's Church Tour..................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>j. Sizzling Gombey Tuesday at Clearwater..................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>k. Globe Hotel.......................................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>l. Tucker House Museum.......................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>m. Tales from an Old Town (Story Telling)....................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>n. Talented Teens &amp; Music Legend Series....................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>o. Bermuda National Gallery..................................................</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>p. Live Entertainment in King's Square.....................................</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

26BM. What other types of leisure or live entertainment activities, if any, would you like to have had available in Bermuda?

RECORD VERBATIM: _________________________________________________________ 98

26C. During your stay in Bermuda, have you heard of the Island’s “Pop and Sizzle Ambassadors” program?

- Yes........................................................................................................... 1 CONTINUE
- No............................................................................................................ 2 SKIP TO Q26E

26CA. (IF YES) Did you participate in any of the following activities hosted by the “Pop and Sizzle Ambassadors” on this trip to Bermuda?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes, took part</th>
<th>No did not take part</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Walking Tour Hamilton</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>b. Walking Tour Dockyard</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>c. Beach Volleyball Competition</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>d. Sandcastle Competition</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
26D. If a Casino was available in Bermuda, would you definitely, probably, probably not or definitely not visit such a Casino to gamble?

- Definitely ................................................................. 1
- Probably ................................................................. 2
- Probably not ............................................................ 3
- Definitely not ........................................................... 4
- Don't Know / depends .................................................. 5

26E. Would having a Casino in Bermuda make the Island more appealing, as appealing or less appealing to you as a vacation destination?

- More appealing ......................................................... 1
- As appealing ........................................................... 2
- Less appealing .......................................................... 3
- Don't Know / depends ............................................... 4

27A. Thinking now about when you booked this trip... Did you book this trip through a travel agent, through a group event planner, directly yourself, or did your company make the arrangements?

- Through a group event planner ....................................... 2 GO TO Q27D
- Company made arrangements ........................................ 6 GO TO Q27D
- Through a travel agent ................................................ 1 GO TO Q27C
- Directly yourself ......................................................... 3 CONTINUE
- Both through a travel agent and directly yourself ............ 4 CONTINUE
- Someone else from the travel party did ......................... 5 GO TO Q27D
- Other (Specify________________________________________) ....... 98 CONTINUE

27B. (IF BOOKED DIRECTLY) Did you use the Internet to book (read and rotate) for this trip?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Your flight .................................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>b. Your accommodations .......................................</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

SKIP TO Q28, EXCEPT IF BOOKED BOTH THROUGH A TRAVEL AGENT AND DIRECTLY THEMSELVES - (IF SO, ASK Q27C)

27C (IF BOOKED THROUGH TRAVEL AGENT) Before you visited your travel agent, had you already decided to go to Bermuda?

- Yes ........................................................................... 1
- No ........................................................................... 2
- Don't know/No answer .............................................. 8

(ASK EVERYONE)

27D Approximately how many weeks prior to your travel did you book your trip to Bermuda?

RECORD NUMBER OF WEEKS: ___________________________ DO NOT ACCEPT RANGE

Don't know/can't recall .............................................. 98
28. Where did you stay during your visit to Bermuda?

<table>
<thead>
<tr>
<th>Commercial (CONTINUE)</th>
<th>Non-Commercial (SKIP TO Q34)</th>
<th>GO TO Q34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>Friends/Relatives</td>
<td>14</td>
</tr>
<tr>
<td>Fairmont Hamilton Princess</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elbow Beach</td>
<td>Private Home (non-paying guest)</td>
<td>15</td>
</tr>
<tr>
<td>Fairmont Southampton</td>
<td>Time Share Unit</td>
<td>10</td>
</tr>
<tr>
<td>Grotto Bay</td>
<td>Military establishment</td>
<td>16</td>
</tr>
<tr>
<td>Private Home (paying Guest)</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Other (Specify)</td>
<td>Fractional Unit Owners</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Vacation Homes (privately owned)</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Other (specify)</td>
<td>97</td>
</tr>
</tbody>
</table>

ASK Q29 to Q33 TO THOSE IN COMMERCIAL ACCOMMODATIONS ONLY

29. Overall, how satisfied were you with the quality of your accommodations during your visit? Were you:

- Completely satisfied ........................................ 1
- Mostly satisfied ................................................ 2
- Mostly dissatisfied .......................................... 3
- Completely Dissatisfied ..................................... 4

VOLUNTEERED
- Neither satisfied nor dissatisfied .......................... 5
- Don't know/No opinion ........................................ 9

31. Did you book your accommodations as a part of a package that included airfare to and from Bermuda?

- Yes ................................................................. 1
- No ................................................................. 2

32a. What was the total cost of your vacation package?

$ ____________

32b. How many individuals are you including in the cost of this vacation package?

[NUMBER OF INDIVIDUALS IN VACATION PACKAGE]

33. Was a meal plan included with your accommodations?

- Yes ................................................................. 1
- No ................................................................. 2
ASK EVERYONE Q34-Q50

34. Keeping in mind that all information collected is completely confidential… In total, how much do you estimate your immediate travel party spent in Bermuda including all credit card and cash transactions. This number should exclude the cost of transportation to Bermuda or the cost of any vacation package? (DO NOT ACCEPT A RANGE – ASK FOR AN ESTIMATE)

Note: IF ALL INCLUSIVE (Q31=YES) ASK FOR ADDITIONAL EXPENDITURES, BUT DO NOT INCLUDE THE COST OF THE VACATION PACKAGE

$ [TOTAL ON ISLAND EXPENDITURES]

35. How many individuals are you including in this spending total?

[NUMBER OF INDIVIDUALS IN SPENDING TOTAL]

36. Thinking about this total, how much did you spend on each of the following:

(IF NON-COMMERCIAL VISITORS, RECORD ZERO ($0) FOR Q36A (ACCOMMODATIONS) THEN SKIP TO 38B)

(IF ACCOMMODATIONS PART OF PACKAGE / GROUP EVENT (Q31), LEAVE Q36A BLANK (RECORD NOTHING) & SKIP TO 36B)

A) Accommodations (including meal plans, taxes, and gratuities) $ __________

AA) IF DON'T KNOW / $0 IN Q36A, PROBE WHY:

Included in package ............................................. 1
Paid by company (Provide Estimate: $ ____) ... 2
Time Share ......................................................... 3
Company property .............................................. 4
Fractional Unit Owners ........................................ 5
Vacation Home (privately owned) ....................... 6

IF THIS IS NOT AN ANSWER IN Q36A, PLEASE ASK THEM TO CLARIFY WHY THEIR RESPONSE EXCEEDS SUM OF BOTH

D) Gifts and souvenirs + $ __________

E) Recreational and leisure activities + $ __________

F) Transportation while in Bermuda and sightseeing + $ __________

G) Telecommunications (Internet, calling cards, etc.) + $ __________

H) Other shopping purchases + $ __________

ASK I & J IF FRACTIONAL UNIT OR VACATION HOME OWNER (RESPONSE 17 OR 18 IN Q28), ASK I) AND J)

OTHERWISE SKIP TO Q37A

I) Fractional Unit or Private Home weekly housekeeping fee + $ __________

J) Fractional Unit or Private Home yearly landscaping and maintenance fees + $ __________

Total expenditures = $

(SUM OF Q36A, B, C, D, E, F, G, H, I, J – DO NOT INCLUDE Q36AA ESTIMATES)

IF TOTAL EXPENDITURE IN Q36 IS GREATER THAN ± 10% OF ANSWER IN Q34, ASK:

37A. I notice a discrepancy between the total expenditures you reported earlier and the sum of your on-Island spending by category. Which of these two figures best represents what you actually spent while in Bermuda? Would you say (RESPONSE FROM Q34) OR (TOTAL IN Q36)?

• (RESPONSE FROM Q34) ................................................................. 1

• (TOTAL FROM Q36) ................................................................. 2
37. In general, how satisfied were you with the overall quality of transportation available on the Island for visitors like yourself?
   - Completely satisfied .................................................. 1
   - Mostly satisfied ...................................................... 2
   - Mostly dissatisfied ................................................... 3
   - Completely dissatisfied ............................................ 4
   VOLUNTEERED
   - Neither satisfied nor dissatisfied ............................... 5
   - Don’t know/No opinion .............................................. 8

38. Which of the following types of transportation did you personally make use of while on our Island?
   [READ AND ROTATE]
   - Bus service .............................................................. 1
   - Ferry service ............................................................ 2
   - Taxi service ............................................................. 3
   - Cycle rental ............................................................. 4
   - None ........................................................................... 6

39. And how satisfied were you specifically with the quality of transportation used? Were you completely satisfied, mostly satisfied, mostly dissatisfied, or completely dissatisfied with:

40. Based on the total cost of your visit, including the cost of transportation to the Island, how would you rate the value of your trip to Bermuda? Would you say the value compared with the cost was:
   - Well above expectation ................................................. 1
   - Above expectations ..................................................... 2
   - As expected .................................................................. 3
   - Below expectations ...................................................... 4
   - Well below expectations .............................................. 5
   VOLUNTEERED
   - Don’t know/No opinion .............................................. 8

41. Based on your personal experiences, would you definitely, probably, probably not, or definitely not recommend Bermuda to others as a place to visit?
   - Definitely .................................................................... 1
   - Probably ........................................................................ 2
   - Probably not ............................................................... 3
   - Definitely not ............................................................. 4
   VOLUNTEERED
   - Don’t know/No answer ................................................. 6
42. And what is the likelihood that you will visit Bermuda again in the future? Would you say you would definitely, probably, probably not, or definitely not visit Bermuda again?

- Definitely ................................................................. 1
- Probably ................................................................. 2
- Probably not ........................................................... 3
- Definitely not ........................................................... 4
- VOLUNTEERED ......................................................... 8
  - Don't know/no answer ................................................ 8

43. Have you ever visited other warm islands, like Bermuda, in the Caribbean area?

- Yes ........................................................................ 1
- No ........................................................................ 2

CONTINUE

44. Compared with other island destinations, would you say that Bermuda is much better, a little better, about the same, a little worse, or much worse, as a place to visit?

- Much better ............................................................. 1
- A little better ............................................................. 2
- About the same ......................................................... 3
- A little worse ............................................................ 4
- Much worse .............................................................. 5
- Don't Know .............................................................. 8

44A. DELETED
44B. DELETED

45. Now I would like to ask you a few questions to assist in our analysis of the data collected. Into which of the following age categories do you fall?

- 18-24 .......... 1
- 25-34 .......... 2
- 35-44 .......... 3
- 45-54 .......... 4
- 55-64 .......... 5
- 65 or over .......... 6
- REFUSED .......... 8

46. And what is the highest level of education you have completed? [DO NOT PROVIDE RESPONSES]

- Less than high school ..................................................... 1
- High school or trade school ............................................ 2
- University or college degree ......................................... 3
- Post-graduate degree .................................................. 4
- Other (specify) ............................................................ 5
- Refused ........................................................................ 8

47. In which of the following broad categories did your total household income (before taxes) fall for the last year? Was it: (REFER TO CARD AT YOUR DISCRETION BY COUNTRY)

- Less than $50,000 ................................................................ 1
- At least $50,000 but less than $100,000 ............................. 2
- At least $100,000 but less than $150,000 .......................... 3
- $150,000 or more in total ............................................... 4
- Refused .......................................................................... 8
48. Do you have any issues or concerns regarding your visit to Bermuda that you would like a representative of the Department of Tourism to follow up with you directly?
   • Yes ................................................................. 1 (PRESENT CARD)
   • No .................................................................... 2

   (IF YES) Could you complete this contact information card for the purpose of such follow-up?

49. For quality control purposes, I require your first name and telephone number as a Supervisor will randomly verify these interviews. This is strictly confidential and will only be used for verification purposes.

   FIRST NAME: .................................................. PHONE: ________________________________

   EMAIL ADDRESS: ____________________________________________

   Thank you for participating in this survey. As a token of our appreciation I would like to give you a small gift. [NOW GO TO THE NEXT PAGE]

50. [BY OBSERVATION ONLY – DO NOT ASK] Race:
   • Black .................................................................. 1
   • White .................................................................. 2
   • Asian ................................................................... 3
   • Other (Specify: ___________________) .................. 4
   • Unsure .................................................................. 5

51. [BY OBSERVATION ONLY – DO NOT ASK] Gender:
   • Male .......... 1 ........................................... Female ................. 2

52. [BY OBSERVATION ONLY – DO NOT ASK] Physical disability of respondent or any members of their immediate travel party (e.g. use of a cane, walker, wheelchair, etc.)
   • Yes .................................................................. 1
   • No .................................................................... 2

INTERVIEWER CERTIFICATION:
I hereby certify that this interview was conducted in the manner in which it was intended in accordance with the way that I was trained conduct it.

Interviewer signature: ____________________________

Remember to record interview end time on first page.
Informal Interview with
Heidi Hess and Chris Gauntlett
March 10 and 13th

The first conversation took place with Heidi Hess, a Dive Master since 1991. She started working in Bermuda in 1996, and has worked at numerous water sports companies in Bermuda in various roles. Heidi is currently a part owner of a SCUBA/Dive shop at the highly rated Tuckers Point Club in Bermuda, a Rosewood property that has condos, time-shares and hotel. This hotel is one of Bermuda’s best and has a more affluent clientele. Heidi’s dive shop mostly deals with air tourists rather than cruise tourists, though her previous experiences with other dive shops has given insight in to both air and cruise tourists. Heidi talked in-depth about both, as well as the current state of the industry. The conversation lasted for approximately one hour and 30 minutes. The other conversation was with Chris Gauntlett, a Dive Master at Blue Water Divers in Bermuda, who has been SCUBA diving for over 20 years, and has SCUBA dived throughout the Caribbean as well as the Middle East and Thailand from which he had just recently returned. A summary of the conversations is written below.

In reviewing the current situation of SCUBA in Bermuda Heidi first brought to light what she thought the major problem was: lack of marketing to overseas tourist as well as locals. This was also reiterated by Chris. Heidi stated that in her experience the number of people who come to Bermuda for the purpose of diving was quite low, and that most divers that she interacts with are people that have seen it at their hotel or accommodations and decide to partake in the activity. Again Heidi directly contributed this to the lack of marketing.
Without the proper marketing the dive industry will not grow to reach its maximum potential in Bermuda. This is obviously a major concern across all dive shops in Bermuda. Other problem factors that arose were the storage of equipment and a lack of space. A lot of dive shops do not have the storage facilities to accommodate all of the equipment needed, so this also reduces the number of divers who can be accommodated by any one shop. The average dive boat capacity as stated by both Chris and Heidi ranged from half a dozen to just over 20 for a half-day tour. Chris had noted that half-day tours are quite common and they normally group novices together on trips as they require a little more attention than that of the seasoned diver. Novice divers are normal taken out in the morning and the more experienced divers are taking out in the afternoon stated Chris. Here he noted the differences between novice and experienced divers, stating that the more experience divers seem to be more affluent.

“The dive tourists in Bermuda have disposable income and are general well educated” (C.Gauntlett, personal Communication, March 13th, 2012). Here Chris pointed out that he thought most of his clients were of a higher than average income bracket and that this is not surprising considering the overall price of goods and services in Bermuda. Though with that being said he did clarify that Air tourists and Cruise tourists are quite different, and that he feels they both have a higher than average income and spend more than the average tourist, but that the Air tourists were higher than that of the Cruise tourists. Heidi again reinforced this and she gave an in-depth analysis of both the Cruise ship tourist and Air tourists, as she has worked closely with both in all aspects of the business. This
includes, being a dive master, to booking trips, to dealing with cruise ship staff and their subsequent contracts. The contracts were a hot topic with Heidi and we will touch on this subject a little later.

Cruise ship tourists as defined by both professionals were on the cheaper end of the scale, which has also been proven by the Air Exit Survey Data from the Bermuda Department of Tourism (BDOT). Other attributes given to the Cruise ship diver was that of “having a chip on their shoulder” (H.Hess, personal communication, March 10th, 2012). Meaning that since they have paid already for what seems to be all inclusive on the ship, they feel they shouldn't need to pay for anything extra. This then affects their attitude and overall satisfaction of their SCUBA diving experience. It was also pointed out by both professionals that in general cruise ship SCUBA tourists do not tip, and think that the tip is included, much like it is on the ship. It was also pointed out by Heidi that she noticed generally more complaints from cruise ship tourist. This was attributed to the fact that if a cruise ship passenger complains to the cruise ship staff then they are awarded a full refund. Which then results in the dive company not getting paid.

As mentioned previously Heidi Hess is currently part owner of a hotel dive shop which caters almost 100% to air tourists, though previously she worked for a company called Fantasea Diving in Bermuda that was actually the other way around. Their clientele was mostly cruise ship passengers and Heidi in her position here, gave some insight on how the cruise industry and the Dive industry work together. It is well known that excursions can be booked on board the cruise ship and even for the more prepared cruiser, before they even board the ship
(though still through the ship or its affiliate company). It was pointed out that cruise ships have contracts with these dive companies and they normally consist of the dive shop holding a certain number of spaces for the cruise ship patrons, and giving the dive shop notice of the intended participants by 6pm on the day previous to the excursion. Apparently this is rarely the case and it is more likely that total numbers will not be given until almost directly before the excursion. This obviously provides a problem for the dive boats as Heidi points out that the to hold these allotted seats the shop has to obviously turn away people, which in the case of all the seats no being filled is a loss of money to the shop. The problem is made worse when you factor in that the cruise ship company takes quite a large chunk of the excursion fee that is booked on the boat. An example was given as follows; “if an excursion costs $45 normally to a dive shop for a regular patron, the cruise ship company will want it for $15 (meaning they pay the dive company $15) and then mark up the rest them selves to normally just a bit higher than that of the dive shop directly” (H. Hess, personal communication, March 10<sup>th</sup>, 2012). Here is where you can see the problem of cruise ship divers and the cruise ship company not providing the correct numbers. Not only are those spaces empty they could have made triple what they would have if they had been able to sell that space. There is also a clause within the contract that even if the cruise ship passenger does not book through the excursion department on the ship, that dive shop must charge the price that the ship charges and give them their percentage of the fee. It might be said that the cruise ships are monopoly with their visitors in certain areas of the country of Bermuda.
Both professionals agree that in their opinion cruise ship tourists are less favorable than airline tourists. Also both people agreed that air tourists were generally more satisfied with their trips and would ask questions about the island. These questions would include, where to eat, where to go, what to see. “They are genuinely interested in the opinion of dive master or captain and value their opinion” (C. Gauntlett, personal communication, March 13th, 2012). This was a statement from Chris talking about the SCUBA divers in general that he had encountered. This was actually the opposite of Heidi’s experience in the same area, where she felt that most were uninterested. Though she did attribute this to the high percentage of cruise ship divers she had interacted with in her life.

Heidi’s new position and job as mentioned before is at a luxury hotel/time share, so most people will know about the island already, or have direct access to the concierge for those types of questions.

There was also an interesting point again brought up by both dive professionals about the difference in tourists relative to the time of year. Winter versus summer was referred to, where each segment brought its own type of tourist quite different from one another. Summer tourist as noted by Chris, tend to be more the impulsive novice SCUBA diver, where as the winter SCUBA diver tends to be a more “hearty” type of diver. “Winter divers tend to be more experienced and have come from colder climates, such as B.C. (British Columbia), Canada or the North east of the States” (H. Hess, personal communication, March 10th, 2012). It was also mentioned that these divers are more likely to come to Bermuda to dive than those in summer. Winter diving
provides a much better visibility in the water for divers, and the winter winds and storms can often blow the particulates away to make it the visibility even better. Both Heidi and Chris confirmed though the water is colder the people from the prior mentioned areas are used to diving in wetsuits and do not mind the cold so much, though it can reduce the amount of time they have underwater. Also the storms and windy winter weather can affect the schedule of boats going out, i.e. it is to rough to go out on the ocean. Chris remarks that it is this uncertainty that makes the winter SCUBA diving market quite fragile and unpredictable. People want to have good weather on their trip and also certainly SCUBA dive, if that is what they came for. Unfortunately there is no way to control the weather. Other interesting tourists types were tourists that get their qualifications in Bermuda. It was mentioned that often people will do their written exam for their respective certification companies at home, and then come to Bermuda to do their practical of actually SCUBA diving. Chris brought up the importance of this market as it expands our dive market and allows people to get attached to the island having done their practical in Bermuda.

SCUBA diving in Bermuda rates highly with both Heidi and Chris and also both have rated as one of the best diving places they have ever been to. This is also generally the same response they get from the people they take diving. Though both SCUBA professionals raised a few common complaints heard often from tourist divers. The first complaint was that of lack of fish, and diversity of fish. Heidi explained that this was mainly due to our fluctuations in water temperature “a 20 degree Fº range between winter and summer. Though this
range makes for large fish and coral that can stand the temperature fluctuations, it cuts down on the space taken up by other coral and also cuts down on the other fish which can use the food sources” (H. Hess, personal communication, March 10\textsuperscript{th}, 2012). Examples of unusually large grouper fish and also unusual large purple sea fans were given. Another observation given was that since both started diving roughly 20 years ago the fish population has actually increased from what it used to be. This was attributed to the fish pot ban imposed on fisherman. A fish pot is a type of mass fishing tool that allows the fish to swim in but does not allow it to swim out, and was banned because of its mass collecting abilities. Complaints of price were not as prevalent as other complaints, though it was mentioned it was not talked about in passing and not really talked about extensively. This was thought to be because “Bermuda is an expensive destination in the first place so people who would come here would most likely have the means to do so, and be aware of the its cost” (C. Gauntlett, personal communication, March 13\textsuperscript{th}, 2012).

As mentioned prior both professionals thought that their SCUBA tourists were of a higher than average income bracket and higher than average educational bracket. Though both also said that divers would definitely prefer cheaper accommodations and are not necessarily concerned with all the bells and whistles offered by luxury resorts/hotels. Each person both reiterated this doesn't not make them cheap. It is just that divers don't mind nature and don't necessarily need or want 4 or 5 star accommodations. They wanted accommodations that were close to the diving, and offered ease of transportation to the dive shop. Also in
mentioning transportation Chris, had mentioned about the travel time to dive sites and that Bermuda offered some of the shortest that he had ever experienced. Having just returned from Thailand where time traveled to the sites could easily exceed 3 hours, Bermuda’s average trip time was 30 minutes and the SCUBA diver saw this as a major bonus as half the day is not wasted on traveling to and from the dive site. Other major benefits included Bermuda’s “long bottom time, with shallow waters as well as the extensive underwater scenery” (H. Hess, personal communication, March 10th, 2012). This means Bermuda offers amazing sites at relatively shallow depths, where shipwrecks are at 50 feet down instead of 300-1000 feet down. “Divers enjoy the easy access to great sites…Bermuda also has nice, beautiful, healthy and old coral reef system, with swim troughs and tunnels, all of which divers thoroughly enjoy” (H. Hess, personal communication, March 10th 2012).

The main problem commented on the overall infrastructure by both Chris and Heidi was the lack of Advertising and Marketing of Bermuda dive tourism in other countries. Both were unified in the response that Bermuda Department of Tourism could help their industry tremendously if they worked together to help promote diving in Bermuda. Either by getting all the dive shops together to form a coalition to advertise together with governments help, or to more directly advertise diving in general. A better understanding of who the SCUBA tourists are in Bermuda is needed so that they can better market towards them.
APPENDIX D

T-TEST RESULTS FOR EXPENDITURES FOR AQUATIC VS NON-AQUATIC TOURISTS IN BERMUDA
<table>
<thead>
<tr>
<th></th>
<th>Total Expenditures</th>
<th>Spending Per Day Per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.021</td>
<td>0.18</td>
<td>5.236.95</td>
</tr>
<tr>
<td>0.054</td>
<td>0.84</td>
<td>1.333.94</td>
</tr>
<tr>
<td>0.2</td>
<td>0.24</td>
<td>1.81-30.21</td>
</tr>
<tr>
<td>0.435</td>
<td>0.16</td>
<td>1.181-49.52</td>
</tr>
</tbody>
</table>

Note: *Levene's test for equality of variances was found to be significant at the 5% level.*

<table>
<thead>
<tr>
<th>Question</th>
<th>T-test Results for Aquatic vs Non Aquatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailed Difference</td>
<td>df</td>
</tr>
<tr>
<td>Sig (2)</td>
<td></td>
</tr>
</tbody>
</table>

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APPENDIX E

SCUBA DIVING AND ECOLOGICAL IMPACTS
Mostly all earlier works on SCUBA diving are all mostly geared towards the ecological effects of mass SCUBA tourism on coral/reef communities. The findings of these studies put forth that increased diving was negatively correlated with coral/reef health, putting most of the damage on to SCUBA divers touching or kicking the coral and killing them, and by not allowing them ample time to regenerate before the reefs were involuntary attacked again. Past studies have concluded that diver inexperience is the main the reason for involuntary/accidental reef touching. Therefore the higher certified and experienced divers are less likely to damage the reef as well as having a higher conservation attitude as well (Davenport, 2006; Hasler, 2008; Tratalos, 2001;).

Also according a SCUBA professional in Bermuda with 20 plus years of experience, the divers in Bermuda, in general do not touch or damage the reef. He attributed this to the high level of conservation the divers had as well as the stringent regulations Bermuda has on not taking any items off of the reefs or wrecks (C. Gauntlett, personal communication, March 12th 2012). The cost of achieving higher certification and being more experienced would be very high, as each certification is another expense, and as additional dives would also increase tourist expenditure. This would then point towards the more affluent tourist being the more conservative conscious. Dodds et al. (2010) reiterates this from a study in Indonesia and Thailand, stating that “the majority of the tourists to both islands were young, had relatively high levels of income and were from English speaking nations” (Dodds et al., pg 207, 2010). Interestingly enough in the same study it found that age had a positive correlation with desire to see evidence of
environmental practices. The affluent, experienced, and mature diver seems to be the diver of choice in the maintaining of coral reefs and their health. This was the same demographic of people as described by the two Bermuda SCUBA professionals.

In trying to maintain coral reefs, and not have 60% of them disappear or die by 2050 (Asafu-Adjaye, 2008) many countries have developed MPA’s (Marine Protected Areas) and these countries strictly regulate what can and cannot be done in certain areas. Quite a few of these MPA’s are used for diving and Bermuda is currently in the process of creating one of the world’s largest MPA’s. Unfortunately paying for the enforcement of the rules and regulation has become a problem in many of the countries that have implemented them (Thur, 2010). Thur has also examined the possible increase in divers fees (a fee paid by the diver to be able to use the area), to better fund these MPA’s. The findings after surveying divers on the fees, was that fees were much too low and could in some places be doubled with little or no effect on demand. This makes sense as other research has pointed that SCUBA diving is a sport for the high income persons. MPA’s have also been linked to the development of a new segment of underwater tourism (Lloret et al, 2006), allowing only a certain number of divers at a site per year which has severely decreased supply and increased demand. This allows the governments that regulate these MPA’s to charge, and get a higher divers fee. This is most likely going to be the way forward for diving, reducing the amount of divers and increasing fees in order to decrease the degradation that is occurring on their reefs. As mentioned prior most studies are to do with
ecological matters and SCUBA diving, though in a lot of cases the studies do touch upon some economic impacts and when seen together can help lay some ground for an economic analysis. Another reason why ecological impacts are touched upon is to do with the sustainability of the industry.