WHALE WATCHING TOURISM IN SRI LANKA: VISITOR SATISFACTION AND BEHAVIOURAL CHARACTERISTICS

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Abstract
The commercial whale watching industry in Sri Lanka, like the tourism industry generally, is experiencing rapid growth in visitor numbers. The challenge for the government is to ensure the sector is managed sustainably which, in-part, requires an understanding of tour participants, their needs and experiences. In order to address this need, a study using the perceived-performance model was undertaken in Mirissa and Galle to examine the profile of whale watching tourists, their tour experiences and spending patterns. In late-2012 and early-2013 a questionnaire constructed in English and Sinhala and containing 28 questions was administered to participants after their tour in both Mirissa and Galle. Study participants indicated that they were overwhelmingly satisfied with all aspects of their tour. Additional the findings indicated that undertaking a whale watching tour was an important influence on their decision to visit Mirissa/Galle and contributed significantly to their enjoyment of their visit to the towns. The results also indicated the economic importance of whale watching to Mirissa and Galle.

Key Words: *Whale watching tourism; Visitor experience; Sri Lankan tourism; Economic impacts*

JEL Classification: *L83, Z32*

I. INTRODUCTION

The commercial whale watching industry in Sri Lanka, despite being in its infancy, has experienced rapid growth in visitor numbers with an expectation that these numbers will continue to grow (Buultjens et al., 2016). Even though the industry began in 1983 it is only with to the ‘discovery’ of whales off the Mirissa coast in 2008 that it has expanded rapidly (Buultjens et al., 2016).

The development of commercial whale watching is important for the country’s tourism industry since it provides an additional and popular experience that increases international competitiveness in a highly competitive market. In addition, the industry also provides extra opportunities for local communities to capture increased economic benefits from tourism as well as providing an incentive for the conservation of whales. However, for the benefits to be on-going, the industry needs to be managed sustainably and this requires a good understanding of all aspects of the industry, including the values and the drivers of the tourist experience and satisfaction levels. In relation to wildlife tourism, including whale watching, the interfaces between tourists and wildlife can make a critical contribution to sustainability (Li et al., 2014) emphasising the importance of good tourism management. In order to manage tourists effectively it is critical to develop an in-depth understanding of tourist experiences (Li et al., 2014); it is also a necessary pre-requisite for successful destination marketing (Bentz et al., 2016). In Sri Lanka, as elsewhere, given the importance visitor satisfaction the area requires considerable research (Curtain, 2006; Moscardo & Saltzer, 2005; Mustkia et al., 2013) and it is the aim of this paper contribute to this and thereby assist in the sustainable management of industry. This paper provides a profile of Mirissa/Galle[1]whale watching tourists, their tour experiences, satisfaction levels and spending patterns. It begins with an exploration of sustainable tourism and visitor satisfaction followed by an explanation of the methods used and an overview of tourism and whale watching in Sri Lanka. The next section presents the results, their implications and a conclusion.

II. SUSTAINABLE TOURISM AND VISITOR SATISFACTION

The concept of sustainability is universally accepted as an important objective of tourism development policy and practice (Sharpley, 2000), however the concept itself remains the subject of vigorous debate (Furqan et al., 2010; Page & Dowling, 2002). Despite the lack of a universally accepted definition it would appear most sustainability frameworks emphasise the ecological, social, economic and managerial components (Spangenberg, 2004). It is also recognised that sustainability is dependent on visitors having a quality experience as this is likely to ensure a destination and/or activity maintains its attractiveness (Buultjens eta al., 2013; Chen & Chen, 2010). As Mustkia et al. (2012: 230-231) suggest the "level of tourist satisfaction is often considered to be an index of the service level of a tourist attraction and of the likelihood of tourists returning or recommending a site to others … and, by extension, an indicator of social, economic and managerial sustainability". Satisfied tourists recommending experiences and destinations to other potential tourists are the cheapest and most effective forms of marketing and promotion (Akma & Kieti, 2003).

In addition, satisfaction serves as an evaluation of the purchased product and influences overall tourist satisfaction levels with a destination in which the product is situated. Not surprisingly there is usually a positive association between tourist satisfaction and a destination's and/or an experience's long term economic success (Akma & Kieti, 2003). Importantly, satisfaction can also influence visitors' expenditure and therefore the economic impact upon a destination (Akama & Kieti, 2003; Zhang et al., 2010).

Given the importance of visitor satisfaction it is not unexpected that it has attracted attention in an outdoor setting and/or with wildlife tourism. A variety of approaches have been used to measure visitor satisfaction (Wang, 2016) with two dominant conceptual approaches - expectancy theory and the perceived-performance model–often being used (Bentz et al., 2016). Expectancy theory is founded on two concepts which are valence (anticipated satisfaction) and expectancy, which is a belief that an action will lead to a certain outcome or goal (Oliver, 1980, see also Andereck et al., 2011). Meeting visitor perceptions is very important to ensuring visitor satisfaction with a destination and/or a tourism product (Akama & Kieti, 2003; Freeman, 2007). Perceptions of a destination or activity are often shaped through a complex process of learning and information exchange. This exchange is influenced by past, present and future visitors, local tourism authorities, the community, promotion by tourism businesses, and popular media (Akama & Kieti, 2003; Buultjens et al., 2013). Visitor perceptions are created through a variety of different sources of information including past visits, promotion and advertising, media reports and word of mouth exchanges and increasingly the internet (Burgess et al., 2011; Fordness & Murray, 1997). Tourism experiences and services that fail to meet their branding and promotional activity risk leaving visitors dissatisfied with the individual activity/service but also the destination (Akama & Kieti, 2003). In addition to meeting peoples' perceptions other factors such as gender, education level, over-crowding and visitor nationality can also influence visitor satisfaction levels (Birtles, et al., 2002; Musa, 2002; Mustkia et al., 2012).

The perceived-performance model suggests that the level of visitor satisfaction is based on the actual performance in the provision of the product/service regardless of previous expectations (Tse & Wilton, 1988; see also Philemon, 2015). Given the identified potential difficulty in eliciting the expectations of whale watching visitors prior to undertaking their tour the perceived-performance model was adopted for this study.

III. THE WHALE WATCHING INDUSTRY

Worldwide whale watching has expanded into a substantial global industry since its beginnings in Massachusetts in the 1960s. Importantly the industry has contributed considerably to the conservation of whales by creating an economic value beyond consumption. The conservation of whales has enabled a number of species to recover from the brink of extinction (Chen, 2011).

In 2008, the industry consisted of 3,300 operators offering whale watching trips across 119 territories and countries and employing an estimated 13,200 people. These businesses catered for 13 million people and resulted in a total expenditure of US$2.1 billion p.a. (O'Connor et al., 2009; Parsons, 2012; Bentz et al., 2016). Importantly almost 55% of the countries offering whale watching opportunities were developing countries which suggests that the industry is playing an increasingly important role in their economic development. In Asia, approximately 20 countries have been able to benefit from the growth of the industry with the number of whale watchers growing from 220,000 in 1998 to over 1 million in 2008 in the region (O'Connor et al., 2009).

These substantial income and employment benefits, especially for developing countries, are likely to increase over time as long as the industry is managed sustainably at a destination level. Unfortunately, it appears that many whale watching destinations may be suffering from unsustainable practices. The consequences of poor management include deleterious impacts on whales (Chen, 2011; Parsons, 2012), poor visitor experiences, and a fall in the economic benefits accruing from the industry (Buultjens et al., 2016; Parsons, 2012).

In an attempt to overcome the negative impacts arising from the whale watching industry many countries and states have introduced a range of laws, guidelines and codes to manage the industry (Cole, 2007; Garrod & Fennell, 2004; Parsons, 2012). The majority of these strategies are voluntary while approximately one-third are regulatory or 'legal' (Garrod & Fennell, 2004).

Most guidelines attempt to protect whales from being harassed or injured as well as improving the visitor experience. Typically the features of guidelines and codes include setting minimum approach distances, boat speed and noise controls (Parsons, 2012; Wiley, Moller, Pace, & Carlson, 2008). In addition, some require the provision of education/interpretation as part of the experience. This requirement is an acknowledgement that education and interpretation are important components of a satisfying tourism experience, especially those involving wildlife (Luck, 2003; Moscardo & Saltzer, 2005; Parsons et al., 2003).

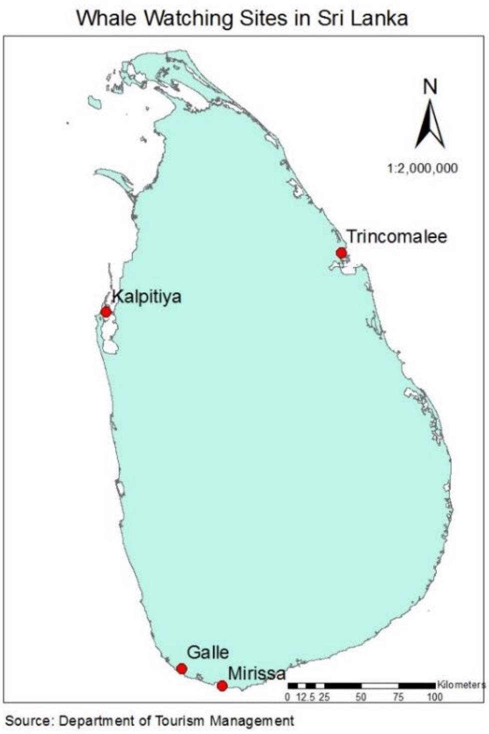
Despite the existence of guidelines and codes unsustainable practices continue in many destinations due to a lack of appropriate funding for the managing agency, poor compliance and monitoring, a lack of capacity and political will (Buultjens et al, 2016; Parsons, 2012). In Sri Lanka, the limited research into the whale watching industry and anecdotal evidence seems to suggest that there are problems with its management that are likely to have negative environmental, economic and social impacts including poor visitor satisfaction (Buultjens et al., 2016; Ilangakoon, 2009; Sri Lankan Airlines; 2012; Williams, 2013a & b).

IV. TOURISM AND WHALE WATCHING IN SRI LANKA

Tourism in Sri Lanka, based substantially on the international market, has flourished since the civil war ended in 2009. International visitation increased rapidly from 447,890 in 2009 to approximately 1.53 million visitors in 2014 (Sri Lanka Tourism Development Authority, n.d.). This rapid increase in visitation has put serious pressure on tourism infrastructure as well as the environment and wildlife (Buultjens et al., 2015b).

Historically the tourism industry has been very much based on 'sea, sun and sand' however there has been an attempt to develop niche markets including ecotourism and wildlife tourism (Buultjens, 2014; EML Consultants, 2012). This diversification is sought in order to provide a range of experiences that will improve the attractiveness of the country as a destination while also increasing the economic returns from tourism. It is recognised that many niche markets including wildlife, attract higher spending tourists who tend to stay longer in a destination (Fredline & Faulkner, 2001; Tisdell & Wilson, 2004). The wildlife market in Sri Lanka, while attracting a number of international and domestic tourists who currently view wildlife, especially elephants, in their natural habitat, has considerable potential for further development. Whale watching, an internationally recognised attraction, is also seen as possessing considerable potential for development and is perceived as an important element of the country's wildlife market, that can provide a competitive advantage for the country's tourism industry (Buultjens et al., 2016; Sri Lankan Airlines, 2012).

The commercial whale watching which is based around the blue and sperm whales is a relatively 'new' industry that has grown rapidly and rather haphazardly (Buultjens et al., 2016; Williams-Grey, 2013b). This growth can be expected to continue since the level of whale watching in a country is significantly related to the size of its overall tourism industry (Cisneros-Montemayor et al., 2010). Whale watching began in Trincomalee, in the north-east of the country, in 1983, but its development was severely constrained by the civil war occurring in the region. In contrast, the industry in the south-west based around the towns of Mirissa, and to a lesser extent Galle, started much later with the 'discovery' of whales off their coast in 2008 (Buultjens et al, 2016). The development in the south-west was facilitated by its location within a popular tourism destination that remained largely unaffected during the war. Another site, based at Kalpitiya located on the west coast, has also been promoted by the government for whale watching, however in 2014 the town and surrounding region was relatively undeveloped (Buultjens et al., 2015a).



There are no official whale watching participation figures available for Mirissa and Galle prior to 2014 however O'Connor, Campbell, Cortez and Knowles (2009) estimated that 620 people participated in whale watching in 2008. In 2012, it was estimated that around 15,000 tourists departed from Mirissa and a further 7000 from Galle. In 2013, this grew to 52,000 departing from Mirissa and 6,500 from Galle with further growth in 2014 to 79,219 departing from Mirissa and 6,900 from Galle. In 2014, 93.2% of tour participants leaving from Mirissa were international tourists while a similar percentage leaving from Galle were domestic tourists (Personal communication, Sri Lankan Coast Guard Representative).

In 2014, there were an estimated 34 boats leaving from Mirissa and a large Navy vessel operating from Galle Port, 34 kms away. The relatively long distance between Galle and the whales meant only a large boat was able to provide tours. Tour boats leave Mirissa port early in the morning and passengers are provided with water, a very light breakfast and life jackets; the Navy boat also provides water and breakfast for its customers. In 2012, there was little, if any, interpretation offered by the operators (Buultjens et al., 2016). The boats can be out at sea for between three to five hours but this can be highly variable with evidence of some tours exceeding eight hours. The boats, except the Navy boat, generally have about five or six crew that includes the captain and a life guard. Some boats also had a quasi-tour guide. The boats can accommodate between 20 and 50 passengers while the Navy vessel can cater for up to 300 passengers. Patrons usually pay between US$ 50-100, except for the Navy boat which charged US$ 26 for domestic adult tourists and US$ 60 for adult international tourists. The boats, except the Navy boat, can travel anywhere between 4 and 40 nautical miles to find whales (Buultjens et al., 2016).

The rapid and haphazard growth of the industry has resulted in some negative outcomes including deleterious impacts on the whales and some poor visitor experiences (Buultjens et al., 2016; Ilangakoon, 2009; Williams-Grey, 2013b). In 2012, in an attempt to improve the sustainable management of the industry, the government introduced *the Sea Mammals (Observation, Regulation and Control) Regulations* (Regulations hereafter) (Government of Sri Lanka, 2012). The Regulations have made the DWLC responsible for licencing and managing the boats as well as recording the tourist numbers. The Regulations have a requirement that all licenced operators provide passengers before the start the tour with knowledge of the need for conservation measures as well as the restrictions that apply to tourists and the tour boat. The Regulations also require the DWLC to prepare the printed material containing the restrictions. In addition, the Regulations require all licenced boats to have a guide who has been trained and is registered by the DWLC on the tour. The Regulations also specify vehicle speed and viewing distances as well as prohibiting tours taking place in inclement weather (Government of Sri Lanka, 2012).

Despite the Regulations it appears that the rapid expansion of industry has resulted in a highly variable visitor experience (Buultjens et al., 2016; Ilangakoon, 2009; Williams-Grey, 2013b). A review of a range of user generated content website indicates that many tourists enjoyed very positive experiences on their tour with comments such as 'an experience of a life time' and a 'truly amazing [experience] … We saw 20-30 blue whales'. However, in contrast there was also reporting of many very negative experiences with comments such as 'We were taken hostages' and 'Unsafe, unresponsive, ridiculous' as well as terms like 'cowboys' and 'spout chasers' used by tourists to derogatorily describe some tours and boat operators. Tourists' commentary also raised concerns about the extent of on-board sea sickness, visitor and vehicle safety, the length of tours and a feeling of being 'taken hostage' at sea. One visitor commented that it was the 'Worst experience - ever' after being at sea for 8.5 hours. Major concerns have also been voiced regularly by commentators and tourists about the perceived harassment of whales and dolphins (see Buultjens et al., 2016; Ilangakoon, 2009; Williams-Grey 2013a & b).

V. METHODS

Data collection

A questionnaire constructed in English and Sinhala was used in this study. In addition, the questionnaire was adapted to allow for its administration in either Mirissa or Galle[2]. The questionnaire aimed to obtain information about the profile of whale watching visitors, the reasons for visiting Mirissa/Galle, the importance of whale watching to their decision for their visit, the source of their first knowledge of whaling watching opportunities in Mirissa/Galle, the level of satisfaction with their experience, the factors that determined their satisfaction, suggestions for improving their experience, previous whale watching experiences and their spending patterns. The survey instrument consisted of 28 questions utilising mostly closed questions that required respondents to select nominal or ordinal categories; a limited number of questions were open-ended.

The survey was not used to collect the prior expectations of respondents' since it was deemed too difficult to approach participants before they left on the tour and the collection of this information after the tour was likely to have been affected by their experiences.

The instrument was pilot tested with the assistance of university colleagues. The aim of this exercise was to test the efficacy of the instrument in order to enhance reliability (Neuman, 2006).

The questionnaires were administered in a three week period over December 2012 and January 2013 by five enumerators using a convenience sampling method. Tour participants were approached as they alighted from tour boats at Mirissa port and the Navy boat at Galle port. The convenience sampling technique used in the administration of the questionnaires requires caution to be applied in making statistical inferences from the sample (Kitchenham & Pfleeger, 2002).

The enumerators experienced difficulties in securing people to participate in the survey since many visitors often arrived back in port in a distressed state often feeling very tired and/or sea sick. In addition, many were trying to get back to their accommodation for a meal. Difficulty in collecting data from cetacean watching tourists is not unusual (for example, see Mustika et al., 2013; Valentine et al., 2004, Warburton, 1999). Despite the difficulty in encouraging survey participation a response rate of 31% was achieved. In the end there were a total of 157 useable responses that represented approximately 1193 people who had undertaken a tour.

The quantitative data collected were entered into and analysed using the SPSS statistical software package. The qualitative responses were recorded and then coded according to categories determined by the researchers.

Data Analysis

In order to determine any significant relationship (at 5% level of significance) between visitor satisfaction (the dependent variable) and some of the other (independent) variables, simple chi-square tests were used. The independent variables were gender, age, nationality, the importance of whale watching to the decision to visit Mirissa/Galle, tour operator used, previous whale watching experience. It was decided not use port location as an independent variable since there was such a strong relationship between this variable and nationality ($p = .00$) and the tour operator used ($p = .00$). For example, 83.3% of people leaving from Mirissa were international tourists while 86.8% leaving from Galle were domestic tourists. Additionally, every tourist leaving Galle used the Navy boat while all Mirissa participants used privately owned (and relatively small) tour boats.

In order to facilitate the bivariate chi-square tests some of the variables were re-categorised into reduced categories in the following ways:

- The five categories used to collect data on satisfaction – 'Very dissatisfied', 'Dissatisfied', "Neither satisfied or dissatisfied', 'Satisfied', 'Very satisfied'- were collapsed into three categories -'Dissatisfied', 'Neither satisfied or dissatisfied', 'Satisfied'.
- The six categories used to record the age of participants were collapsed into three – '29 and under', '30-49' and 'over 50'.
- The nationality variables were collapsed into 'Domestic' and 'International' tourist.
- The original categories used to determine importance of whale watching to the decision to visit Mirissa/Galle – 'Of no importance', 'Of little importance', 'Of some importance' and 'Of great importance' – were collapsed into 'Little or no importance' and 'Some or great importance'.
- The data for the tour operator used by tourists was collapsed to 'Navy' and 'Private operators' categories.
- The 20 'least enjoyable aspects' of the tour were recoded into four categories – 'Nothing wrong',

‘Conditions on the boat’ (including toilets, comfort, an open deck that was too small), ‘Rough seas’ and ‘Aspects of whale watching’ (including getting too close to the whales, not getting close enough and more information).

Results

As stated previously the questionnaires were administered at Mirissa and Galle ports with 73.2% responses coming from Galle and 26.8% from Mirissa. These figures do not appear to be representative of whale watching in the south-west since it is estimated that in 2012, 68% of people left from the Mirissa port and 32% from Galle (Department of Coast Guard, Mirissa, personal comment). The higher rate of responses from Galle is most likely related to the fact that people on the large Navy boat were less likely to suffer from sea sickness than those on the smaller boats that left from Mirissa. Their relatively better physical (and possibly psychological) wellbeing is likely to have increased their willingness to participate in the study. The predominance of responses from Galle has resulted in a skewing of the results in terms of the split between international and Sri Lankan visitors since the Galle Navy boat predominantly catered for Sri Lankans. The predominance of Sri Lankans could also be explained by the fact that the surveys were conducted during the Sri Lankan school vacation and holiday season; a time when domestic tourism is at its peak

<u>A profile of tour participants</u>

In this survey the majority of respondents came from Sri Lanka (67.9%) while the remaining 32.1% were international travellers representing 11 countries; the most coming from Australia (27.5% of international visitors), the UK (19.6%) and Germany (15.9%). These figures are different to those of Department of Coast Guard, Mirissa (personal comment) that suggest in 2012, 68% of whale watching participants in the south-east were international tourists.

There were more male than female respondents (55.4% cf. 44.6%). The age of respondents was relatively equally spread over the age ranges of 20-29 (26.3%), 30-39 (23.7%), 40-49 (20.5%), over 50 (22%) and approximately 7% under-20 years of age. As to be expected domestic tour participants tended to be younger than the international visitors ($\alpha = 0.029$). For example, approximately 40% of Sri Lankans were under thirty (cf. 20.4% of international visitors) while only 17.9% were over 50 (cf. 32.7% of international visitors). Nearly 62% of respondents travelled to Mirissa/Galle with their family, 20.3% travelled with companions and 13.8% were on an organised tour. Sir Lankans were much more likely ($\alpha = 0.005$) to have been on an organised tour (19.6% cf. 2.2%) while international tourists were more likely to be travelling with companions (33.3% cf. 14.1%).

Almost 58% of participants were employed while 15.7% were students and 8.5% were either engaged in home duties or retired. Approximately 53% of the employed participants were managers or professional indicating the participants, as with whale watchers elsewhere, were generally well-educated and higher income earners (see Bentz et al., 2016, Valentine et al., 2004).

<u>Information about whale watching in the south west</u>

Most participants (37.2%) first discovered information about whale watching in Mirissa/Galle through the internet. Word-of-mouth prior to arrival in Mirrisa/Galle was the next most common method (22.1%) followed by word-of-mouth while in Mirrisa/Galle (12.1%); marketing material accounted for only 10%. These figures indicate the likely importance of the internet, including user generated sites such as Tripadvisor, in informing destination visitors and creating expectations. This is especially important since, as also noted earlier, whale watching received mixed commentary on user generated sites. It is possible that these reviews may have lowered the expectations of participants. Interestingly the use of the internet was substantially higher in this study than that observed by Mustake et al. (2013) who found that only 15.2 % of respondents learned about the dolphin tours in Lovina from the internet.

<u>Tour operators used by tourists</u>

As stated earlier 73% of respondents left from Galle on the Navy boat. Other operators used by the study participants were Raja & the Whales (19.6%), Mirissa Watersports (5.4%) and Aqua (2%). As expected there were significant differences ($\alpha = 0.000$) between Sri Lankans and international participants in which operators they chose. International visitors were much more likely to have used private operators leaving from Mirissa (68.8%) than the Navy boat leaving from Galle (31.3%). In contrast 7.1% of Sri Lankan visitors used the private boats while 92.9% used the Navy boat.

<u>Tourist satisfaction</u>

Respondents were asked to rate their overall satisfaction with their whale watching tour (see Table 1). The overwhelming majority were happy with their experience since 40.1% were ‘Very Satisfied” and

38.1% were 'Satisfied'; only 6.1% indicated dissatisfaction with their tour. This reflects similar satisfaction rates established in other studies (Bentzeta.l., 2016; Valentine et al., 2004). Gender, age, nationality and operator used did not influence satisfaction levels.

Table 1: Overall satisfaction with the whale watching tour

	Frequency	Percent
Very satisfied	59	40.1
Satisfied	56	38.1
Neither satisfied not dissatisfied	23	15.6
Dissatisfied	3	2.0
Very dissatisfied	6	4.1
Total	147	100.0

Table 2 provides details of satisfaction levels with various aspects of a tour and, as can be seen, the levels are generally very similar across most aspects. The highest satisfaction rate was with the 'Safety and security' aspects of the tour with 94.5% of respondents either 'Very satisfied' or 'Satisfied'. In contrast the lowest satisfaction rate was with 'Information provided about the whales' where 66.4% of respondents were either 'Very satisfied' or 'Satisfied'. Satisfaction with 'Information provided about the whales' varied with the tour operators used (α = 0.020). People using the boats from Mirissa were more satisfied (82.5%) than those who travelled with the Navy (59.8%). This finding suggests a relatively poor level of interpretation provided on the Naval Boat. Satisfaction levels with all other aspects of whale watching had no significant relationship with gender, age, nationality or tour operator used.

Table 2: Satisfaction with aspects of the whale watching tour

	Very dissatisfied %	Dissatisfied %	Neither satisfied nor dissatisfied %	Satisfied %	Very satisfied %
Safety and security	2.1	0.7	1.4	35.6	58.9
Comfort of boat	2.0	2.0	2.7	49.0	44.3
Viewing of whales	1.4	0.7	5.8	51.4	40.6
Protection from the weather conditions	2.1	0.7	9.2	43.0	45.1
Food & drinks	0.7	5.7	14.3	45.0	34.3
Toilet facilities (if you used them)	0.8	6.7	17.5	46.7	28.3
Information provided about the whales	5.1	8.0	20.4	33.6	32.8

Participants were also asked about their satisfaction with other aspects of the tour such as the length of the tour. A relatively large number of respondents (70.4%) felt that the length of the tour was the 'Right length' while 20% felt it was 'Too short' and 9.6% felt it was either 'Too long' or 'Much too long'.

Participants were also asked to nominate the most enjoyable aspects[3] of the tour and not surprisingly an overwhelming 80.1% of respondents indicated that it was seeing whales and dolphins. The only other aspect of any importance for participants was the 'Whole experience' - enjoyed by 7.6% of respondents. In contrast the least enjoyable aspects of the whale watching tour included the 'Rough boat ride and sea sickness' (20.5%), 'Not seeing many or any whales and/or dolphins' (13.7%) and 'Travelling by boat to see whales' (9.6%). Other aspects that participants found difficult included 'Boats going too close to the whales', 'Not going close enough to the whales', 'A lack of information' and a range of aspects associated with comfort. Approximately 22% of respondents did not find anything 'unenjoyable' about the tour.

There were statistical differences between the least enjoyable aspect of the tour and international and Sri Lankan visitors (α = 0.013) and also with the tour operators used (α = 0.045). For example, 41.7% of international visitors identified 'rough seas' as the least enjoyable aspect compared to only 10.2% of

Sri Lankans. This reflected the contrast between the large Navy boat and the much smaller tour boats. In contrast, 'Aspects of whale watching' were more problematic for Sri Lankans (32.7%) compared to international visitors (16.7%) and once again this was probably reflective of the boat size used by the two groups. In terms of the statistical differences in the tour operator used 39.1% of visitors on private boats identified 'Rough seas' as the least enjoyable aspect compared to 10.6% on the Navy boat. Nearly 32% of Sri Lankan tourists identified aspects of 'Aspects of whale watching' as the least enjoyable aspects of the tour in comparison to 17.4% of international visitors.

Participants were also asked to provide suggestions for improving the tour. Forty-nine percent of the 157 respondents provided no responses for improving the whale watching experience while another 10% suggested that no improvements were needed. The most suggested aspect needing improvement was the provision of 'More information about wildlife, in particular whales' (41.3%), followed by 8.8% who suggested 'Other boats adhering to the whale watching guidelines'. In all, 35.4% of suggestions related to improved comfort and better viewing from boats. There were no significant differences between suggestions for improvement and gender, age and nationality. Despite no statistical difference 51% of Sri Lankans suggested 'More/better information' compared to 28.6% of international visitors. Nearly 22% of international visitors suggested that the boats needed to adhere to guidelines for viewing compared to only 5.9% of domestic visitors. There were significant differences between suggestions for improving the tour and the tour operators used ($\alpha = 0.022$). For example, 26.1% of visitors on private boats identified 'Adhering to guidelines' as area for improvement compared to 5.7% of those on the Navy boat. In contrast, 52.8% of tourists on the Navy boat identified 'The provision of better information' as an aspect of improvement compared to 21.7% on the smaller boats.

Previous whale watching experiences

Approximately 22.4% of respondents had been on a whale watching tour before. Of these with past experience, 25% had left from Mirissa, 10.7% had left from Galle and 3.6% from Trincomalee. Other places people had participated in whale watching included Australia, New Zealand, Mexico and Canada. There were no statistical differences in satisfaction between those who had been whale watching previously and those who had not however people who had been on a tour previously were more dissatisfied (11.1%) with their latest tour than those who had not been (5.6%). A number of respondents (45.8%) who had been on another tour rated their current Mirissa/Galle experience as 'Worse than previous tour', another 33.3% thought it was 'About the same as previous' and 20.9% felt it was either 'Better than previous' or 'Much better than previous'. This is an interesting finding because while nearly 80% of participants indicated that they were either 'Satisfied" or 'Very satisfied' with their tour there was a relatively large percentage who felt their current tour experience was not as good as their previous one.

The importance of whale watching to visitors

The findings suggest that whale watching was an important influence on the decision to visit Mirissa/Galle. Most tourists were visiting Mirissa/Galle as part of a longer holiday however a substantial number (35%) indicated that they would not have visited Mirissa/Galle if not for whale watching. This is a similar finding to Valentine et al. (2004) who found that 25% of their participants had come specifically to see whales. More international visitors (40.8%) stated they would not have visited than Sri Lankans (32.3%). Additional 60% of respondents indicated that undertaking a whale watching tour was 'Of great importance' in their decision to visit Mirissa/Galle while another 17% indicated that it was of 'Of some importance'. In contrast, 24% stated that it was of 'No' or 'Of little importance'. For Sri Lankans it was significantly more important ($\alpha = 0.009$) than for international tourists with 68% of Sri Lankans stating it was 'Of some' or 'great importance' compared to 42% of international visitors. The findings support Tisdell and Wilson's (2004) and suggest that wildlife tourists often only visit a location in order to undertake a wildlife experience or, that if they did visit, they would spend fewer days at the location.

The average length of the holiday undertaken by visitors was 8.62 nights (S.D. 9.027) with international visitors' holidays lasting an average of 16.8 nights (S.D. 7.624) and Sri Lankans lasting 3.2 nights (S.D. 4.832). The figures for international visitors suggest that they were spending more time in Sri Lanka than the average international visitor. For example, in 2012, the average length of stay was 10 nights with only 9.9% off all international visitors staying for more than two weeks (Sri Lanka Tourism Development Authority, 2012). This is consistent with the literature (see Fredline & Faulkner, 2001; Tisdell & Wilson, 2004).

The average length of stay in Mirissa/Galle for all whale watching participants was 1.27 nights (S.D. 2.18) with international visitors spending an average of 1.78 nights (S.D. 2.125) and Sri Lankans .9 nights (S.D. 1.011). The majority of survey participants (51.4%) had visited Mirissa/Galle previously with over 19.6 % having visited more than 10 times. Sixty per cent of those who had previously visited Mirissa/Galle had done so within the last 12 months. As expected, Sri Lankans (68%) were much more likely to have previously visited Mirissa/Galle than international visitors (17%).

Participants were also asked to provide an estimate, as a percent, of how much their whale watching tour contributed to the total enjoyment of their trip to Mirissa/Galle. The mean rating was

65.1/100 (SD 26.939) indicating that the tour contributed substantially to their total enjoyment of their visit to Mirissa/Galle. The whale watching tour contributed more to the Sri Lankans' total enjoyment of the trip to Mirissa/Galle (72.93, S.D. 20.425) than it did for international tourists (48.66, S.D. 30.782).

Visitor spending

Respondents were asked to estimate how much they spent in Mirissa/Galle and the rest of Sri Lanka on various items during their holiday. The details are provided in Tables 3 and 4. The respondents estimated that they and their group spent, on average, US$263.59 while in Mirissa/Galle. As to be expected the spending patterns between Sri Lankan's and international visitors was substantially different. For example, Sri Lankan respondents estimated that they spent US$104.03 in Mirissa/Galle while international visitors estimated they spent US$642.56.

Table 3: Average Expenditure in Mirissa/Galle

	Sri Lankans		Internationals		All visitors	
	US$	S.D.	US$	S.D.	US$	S.D.
Accommodation (motels, hotels, camping fees) (includes pre-paid)	78.80	117.462	340.69	370.329	181.97	276.601
Meals (food and drink in restaurants, cafes, hotels)	26.81	42.234	118.43	136.450	58.88	96.479
Shopping (including souvenirs, food, camping gear.)	18.33	11.378	26.00	12.264	22.17	11.968
Travel Costs (including air fares, car rentals, tour costs, admission fees, petrol, car repairs)	50.65	57.198	310.62	734.165	127.45	408.774
Other	116.75	90.245	951.00	.	283.60	381.186
TOTAL	**104.03**	**163.752**	**642.56**	**1075.165**	**263.59**	**638.354**

Table 4 shows that respondents spent, on average, US$1,961.44 in the rest of Sri Lanka during their holiday. Sri Lankan respondents estimated that they spent US$111.60 in the rest of Sri Lanka while international visitors estimated they spent US$3,194.67

Table 4: Average Expenditure in the rest of Sri Lanka

	Sri Lankans		Internationals		All visitors	
	US$	S.D.	US$	S.D.	US$	S.D.
Accommodation (motels, hotels, camping fees) (includes pre-paid)	111.00	117.303	1,027.92	1,020.090	773.22	957.266
Meals (food and drink in restaurants, cafes, hotels)	61.50	69.130	211.73	146.320	171.67	145.070
Shopping (including souvenirs, food, camping gear.)	3.00	4.243	68.25	74.264	55.20	71.052
Travel Costs (including air fares, car rentals, tour costs, admission fees, petrol, car repairs)	61.80	68.682	2,161.00	3,197.569	1,543.59	2,828.876
Other	-	-	2,875.00	2,722.361	2,875.00	2,722.361
TOTAL	**111.60**	**10614895**	**3,194.67**	**2,882.10753**	**1,961.44**	**2,688.12839**

In order to determine average spend per person, respondents were asked to indicate how many people their expenditure covered. The data indicated that the expenditure for all respondents covered, on average, 4.8 adults (S.D. 5.446) and 2.8 children (S.D. 4.584). In regards to Sri Lankan respondents the expenditure covered 6.2 adults (S.D. 6.448) and 3 children (S.D. 4.881) while international respondents' expenditure covered 2.4 adults (S.D. 1.037) and 2 children (S.D. 0.000).

To determine the average spend per person, the respondents' estimated group spend was divided by 4.8[4], while for Sri Lankan respondents spend was divided by 6.2 and international spend was divided by 2.4. The estimated average spend per person was US$54.92 in Mirissa/Galle, US$408.64 throughout the Rest of Sri Lanka and $207.33 for the whole holiday. For Sri Lankan visitors the estimated average spend per person was US$16.78 in Mirissa/Galle, US$18.00 throughout the Rest of Sri Lanka and US$21.26 for the holiday. The estimated average spend for international visitors in Mirissa/Galle was US$267.74, the Rest of Sri Lanka was US$1,331.11 and US$1,071.59 for the holiday. The spending for the international visitors determined for this study (US$1,071.59) was very similar to the US$1,030 estimated international visitor spend for all visitors to Sri Lanka in 2012 (Sri Lanka Tourism Development Authority, 2014).

VI. DISCUSSION AND CONCLUSION

The Sri Lankan government has indicated a keenness to diversify the tourism industry through the development of high yield, niche markets such as wildlife tourism. The results from this study indicate that this is a sound decision. The economic benefits from whale watching are considerable. The opportunity to undertake a whale watching tour provided a substantial incentive for international and domestic tourists to visit Mirissa/Galle. Additionally, the activity contributed substantially to the enjoyment of the tourist's visit to the towns, with participants estimating that their tour contributed 65% to their total enjoyment of their trip to Mirissa/Galle.

The importance of whale watching can be illustrated by the estimating the loss in visitation to Mirissa had whale watching not been available. Using 2014 visitation figures it is estimated that without whale watching approximately 30,117 international tourists and 1,745 locals, at a minimum, would not have visited Mirissa resulting in an estimated loss of 55,178 visitor nights and a spending loss of US$8.3m (based on 2012 spending figures determined from this study).

The importance of whale watching as a drawcard for Mirissa/Galle and need to ensure its sustainability makes it is crucial to ensure that visitors have a quality experience. It has been noted that the visitor experience can be highly variable (Buultjens et al., 2016; Ilangakoon, 2009) however this study found the overwhelming majority of tour participants were satisfied or very satisfied with their tour. The findings are similar to other studies of marine tourism (Bentz et al, 2016; Valentine et al, 2004). This level of satisfaction is pleasing however there may be some factors that impacted on this finding including the possible bias in the study sample and the weather conditions on the day the interviews were conducted. Poor weather conditions and rough seas is likely to reduce the enjoyment of visitors, especially for those on the smaller boats. Another possible explanation for the high satisfaction levels could be the fact that generally only people who had a good experience were likely to agree to participate in the survey. As noted earlier many visitors who arrived back in port in a distressed state declined to participate in the study. A further explanation could be that the majority of respondents were on the Navy boat. Many of the website complaints were about the level of discomfort and the level of sea sickness – both these were more likely to be associated with small tour boats. It would appear that the smaller tour operators, if at all possible, need to improve the comfort of their boats. Interestingly, the Regulations do not seem to address the issue of rough seas and the provision of tours when there are rough seas.

The findings also indicate the Navy vessel, in particular, needs to provide improved educational and interpretive material. Buultjens et al. (2016) found that the education and interpretation provided to tourists on all boats to be substandard despite its acknowledged importance for visitor satisfaction (Mayes & Richins, 2008). The Regulations have addressed this issue by requiring the provision of interpretive material and a tour guide on all tours and it is now important that this requirement is enforced.

Another finding is the relative importance of the internet in informing potential visitors about whale watching in Mirissa/Galle. As stated previously there are very mixed reports on many websites sites and this could present a problem for the industry and the managing authority as the industry continues to develop into the future.

Finally, it should be noted that the significant economic returns from the industry will continue encourage the entry of more boats adding extra pressure on the already congested industry and possibly impact on visitor satisfaction. Hopefully the Regulations and DWLC will ensure that this does not happen however as Buultjens et al. (2016) note a lack of funding appears to be preventing an effective management of the industry. It is clear the whale watching industry is an important draw card for domestic and international tourists and provides a substantial economic contribution to the towns of Mirissa and Galle. The industry is expected to continue growing and it is important that this growth is managed sustainably, which in-part requires ensuring high levels of visitor satisfaction. This study, using the perceived-performance model, determined that there were high levels of visitor satisfaction amongst whale watching tour participants however there were some factors that may have skewed this finding. It is important that further studies of the industry are undertaken to monitor the performance of the industry.

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