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We publish papers that consider any aspect of the above topics. Contributions may deal with one or more of the economic, social, cultural, political, organisational and environmental themes in tourism. A key feature of this new journal will be the publication of **special issues**.

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**MARINE PARKS AS A DESTINATION CHOICE OF MILLENNIAL TOURISTS: THE ROLE OF CONSUMPTION VALUES AND RESPONSIBLE ENVIRONMENTAL BEHAVIOUR**

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Jo Ann Ho \*\*

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**Abstract:** Marine parks are popular ecotourism holiday destinations besides being an important conservational zone for the marine life. The sustainability of marine parks is highly dependent on the visitors' behaviour, especially millennials who are an imperative tourist segment that are implied to be supportive of the green movement. Personal consumption values have yet to be widely used to predict tourists' environmental behaviour and especially on their destination decision. Furthermore, there have been contradicting findings between the tourists' consumption values and their environmental behaviour when visiting ecotourism destinations. Thus, the purpose of this study is to examine the influence of personal consumption values on responsible environmental behaviour, and the mediating effect of responsible environmental behaviour between these values and their destination choice. A face to face survey was conducted among 409 local and international millennial tourists at the top three marine parks in Malaysia using purposive sampling. The data was analysed using partial least squares structural equation modelling method to determine the relationships between the tourists' consumption values, responsible environmental behaviour and destination choice. The result of this study confirms that personal consumption values did have a significant but weak influence on tourists' pro environmental behaviours. It further confirms that millennial tourists who are environmentally responsible prefers to visit marine park islands as their holiday destination. This study highlights the importance of attracting the right tourist segment to promote ecotourism destinations.

**Keywords:** Consumption Values, Destination Choice, Ecotourism, Marine Parks, Responsible Environmental Behaviour, Sustainability

### **Introduction**

Over the years, there has been a widespread of growing support for ecotourism, instead of mass tourism due to the growing concern for global environmental issues. Malaysia has been identified as one of the popular ecotourism destination in its region due to its tropical weather and abundant flora and fauna (United Nations World Tourism Organization 2019). The marine park islands are one of the famous sites in Malaysia for ecotourism among the local and foreign tourists and most of the marine park islands in Malaysia are located in Terengganu, Johor, Pahang, and Sabah (Department of Marine Park Malaysia 2017).

One of the key contributor that have helped shape ecotourism is the millennial tourist segment. Based on majority of definitions, millennials are those born between the years of 1980 to 2000 (Cavagnaro and Staffieri, 2015). According to the United Nations, millennial tourists generate more than \$180 billion in annual tourism revenue and is expected to reach \$340 billion by 2020 (Oxford Economics, 2010) and about 58 percent of global millennials live in Asia (AT Kearney, 2018). As the generation moves up the purchasing power pyramid overtaking its predecessors the baby boomers, millennials have taken center stage for marketers and researchers alike.

Millennial tourists have a significant influence on the tourism sector. They love to travel to novel destinations where they can immerse themselves in local and unique experiences. This generation prefers to spend their extra money on vacations rather than buying a new car.

However, the millennials are not to be mistaken as careless or carefree. They are savvy tourists that are well-exposed and highly connected to the world through social media and mobile applications. Information on travel destinations and choices are just at the tip of their fingers. Besides, they view travelling as a need, not a luxury, as it is deemed important for their personal growth and overall well-being. In this notion, their consumption patterns and decision-making process may differ from the typical tourist.

Generally, studies related to pro-environmental behaviour is not a new phenomenon but findings from these studies have been elusive. There exists a preconception that ecotourists are more aware about the dire environmental situation and would want to contribute by behaving more responsibly. Furthermore, most of the studies concentrated on understanding the antecedents of behaviour intention in general, without exploring its' effect on certain specific decisions (Zhang et al., 2014). Past studies have examined consumers' purchasing behaviour towards green products such as cars, household products, and green food (Vermeir and Verbeke, 2008; McDonald et al., 2009; Oliver and Lee, 2010; Young et al., 2010; Mohd Suki and Mohd Suki, 2015b) . Despite the various studies conducted on pro-environmental behaviour, most studies found that there is a disconnection between their perception towards green practices and their willingness to take action (Line and Hanks, 2016). Consumers have been said to make different choices in different environmental situation or context. In pursuit of responsible consumerism, it is not uncommon to see tourists place more emphasis on cost and comfort over environmental cause. Indeed, there is still much to uncover about their consumption behaviours and choices.

Thus, it is hoped that the findings of this study would fill the knowledge gaps on responsible millennial tourists' behaviour and their destination choice. Subsequently, this study provides empirical evidence to identify the motivation and preferences of this segment to support the sustainability of the natural resources in the marine park islands.

## **2. Literature Review**

### **2.1 Tourists' Responsible Environmental Behaviour and Destination Choice**

Tourists' behaviour is a thriving field of study that is vital to the development and sustainability of the tourism industry. Numerous studies have been conducted to understand the overall tourists' behavior focusing on their satisfaction, visit intention, travelling decisions. In hospitality sector, studies have focused on understanding tourists' intention towards staying in green hotels (Han and Kim, 2010; Chen and Tung, 2014; Mohd Suki and Mohd Suki, 2015a) and specific activities such as recycling and energy-saving (Bezzina and Dimech, 2011; Gadenne et al., 2011; Saripah and Mohd Shukri, 2012; Ramayah and Rahbar, 2013).

Tourists' pro-environmental behavior is constantly evolving in view of the influences from the external environmental such as technological advancements, climate change issues and globalization. In explaining tourists behavior, a simple linear model linking knowledge, attitude and behavior was proposed in the early 70s (Lu and Wang, 2018). In view of the increasingly challenging global environmental issues, further studies introduced expanded models and additional dimensions of attitude and social norm as predictors in the 1980s. Two such popular models that were developed and repeatedly tested were the theory of reasoned action (Ajzen and Fishbein, 1980) and the theory of planned behavior (Ajzen, 1985). Nonetheless, these rational-choice theories insufficiently explain environmentally-friendly behaviors,—while attitude was often found to be a poor predictor of behaviours, as people often make choices based on their personal values (Weeden, 2014).

Environmentally responsible tourists have also been referred to as ecotourists, ethical tourists, green tourists and sustainable tourists. However, Weeden (2008) questions if responsible consumers and ecotourists are even coincidentally same or different from each other. Tourists are often not homogenous and wish to fulfil different needs when choosing a destination over another. For example, ecotourists are those who are more inclined towards nature-based destinations, preferring nature parks compared to man-made settings. They also prefer destinations that offer adventurous outdoor activities that do not disrupt the ecosystem such as bird - watching and hiking. In a study by Kelly et al., (2007), ecotourists supported destinations that practiced eco-friendly options that they perceive would help to offset the negative impacts of their visits.

Holiday destination choices involve various considerations and often highly bounded by the context, may evolve over time and are often difficult to fully understand (Decrop and Snelders, 2004). Early studies on destination choice posited that tourists are rational and thus go through a logical decision-making process whereby consumers buy to achieve optimum worth or utility in exchange of the price paid (Moutinho, 1987). Therefore, past studies on destination choice have focused on price, distance and cost (Nicolau and Más, 2006). Besides, tourists' perception towards the overall quality of the natural environment have also been found to be a significant predictor of destination choice (Mihalič, 2000). Over the years, the growth of services sector has forced researchers and marketers too look at tourism differently compared to purchasing process of products. Gilbert (1991) advocates that decision making model should emphasize on behaviour as functional concept, and further looks into the effect of that decision on future behaviours. Furthermore, the bibliographic study by Saito and Strehlau (2018) concluded that various psychological and social aspects exists in understanding destination decision making process. Meyer (1988) suggested that tourists' travelling decisions are a form of an escape from everyday life to seek rich life experiences. Furthermore, tourists travel for many reasons such as to unwind, relax or to spend quality time with their family and friends, often above and beyond their commitments to the nature. For some of the tourists, they may act more responsibly if their overall vacation experience is not compromised and certain incentives were provided in return.

## **2.2 Personal Consumption Values**

A tourist's behaviour and decisions may differ as tourism products are experiential, intangible and heterogeneous. As such, consumption values have been said to a good predictor of responsible tourists' behaviours (Gatersleben et al., 2014). Personal consumption patterns and lifestyle changes are important factors that would influence behaviour and decisions. The potential influence of consumption values on consumer choice was emphasized in Sheth et al., (1991) consumption values theory. Consumers are said to be influence by functionality, social identity, emotionality, uniqueness and other conditions respectively.

Sheth et al., (1991) described personal consumption values as multidimensional drivers of consumer choice. Consumption values have previously been tested in relation to destination image (Ramkissoon et al., 2009), destination choice (Phau et al., 2014) and post-visit behaviour such as loyalty (Wan et al., 2018) but its influence on responsible environmental behaviour has yet to be attempted. The functional value represents the monetary and overall worth of consuming the vacation services. Functional value is often evaluated from the visitors' perception towards the overall quality and economical price of their holiday. Functional value has been established to be a strong predictor towards behaviour intention and destination decision (Wang et al., 2018).

Whereas emotional value is the feelings of happiness and joy from consuming the products or services. Emotional value was found to have the most influence on destination decision (Denys



and Mendes, 2014). When consuming tourism and leisure services, tourists desire to satisfy their emotional experiences (Brunner-Sperdin et al., 2012). Studies have found that Malaysians are motivated to travel for pleasure to natural sites (Norzalita and Ahmad, 2009). Thus, recreation experience in nature-based destinations allows tourists' emotions to be aroused and result in more pro-environmental practices.

Epistemic value, on the other hand, is the importance of uniqueness and novelty that the consumer experience. Based on a study conducted on Chinese students, epistemic value was an important determinant of green products' purchase intention as it made them feel special using the products (Ma et al., 2018). Epistemic value turned out to be the most prominent dimension by contributing the highest weightage among the overall consumption values and had a significant positive impact on sustainable consumption behaviour (Burcu and Seda, 2013; Biswas and Roy, 2015). For a traveller, the epistemic value may be achieved through participation in local socio-cultural activities that is unique to the destination. For example, in a study conducted among local and international tourists' perception, both groups indicated high importance on Thailand as an exotic holiday destination with regards to its cultural heritage and natural environment (Henkel et al., 2006).

Additionally, social norms is one of the key antecedents of consumer decision and therefore a vital concept in this study. Consumers' self-identity becomes increasingly important in defining how they view themselves in relation to the community. A responsible tourist may develop stronger social value if they perceive that their pro-environmental behaviours would allow them to be associated to some social groups. In a study by Biswas and Roy (2014) on green products in the context of the emerging market of India, they found that social values play a significant role in sustainable consumption behaviours.

Consequently, it may not seem possible for ecotourists to make responsible consumption choices all the time. Just like any other consumers, responsible tourists may face certain trade-offs in view of their holiday choices. As such, conditional values measure their perceived utility towards a certain situational context. For example, a tourist would be more inclined to act responsibly if he or she are more aware about the deteriorating environmental conditions such as pollution.

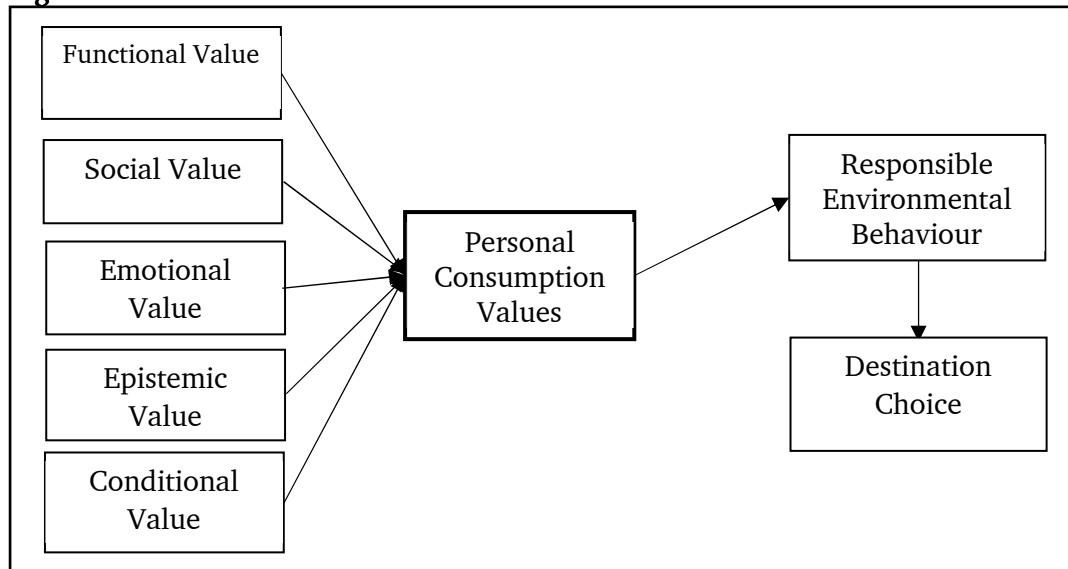
Consumption values have been confirmed to influence tourists' loyalty towards the destination (Wan et al., 2018), however limited studies were found specifically on linking consumption values to ecotourists' responsible behaviour and their preference towards marine park islands specifically. Tourists' involvement has been said to play the role of partial mediators towards sustainable behaviours (Chiu et al., 2013). Concurrently, higher levels of involvement and participation in the tourism recreation activities strengthens their values and increases the well-being of their overall experience in responsible environmental behaviours (Hung and Jan, 2015; Mathis et al., 2016).

### **3 Methodology**

#### **3.1 Research Framework**

Below Figure 1 depicts the research framework underlying this study. Based on the review of the various past literatures, it is hypothesized that personal consumption values as theorized by Sheth et al., (1991) is a formative construct consisting of functional, social, emotional, epistemic and conditional values. It is hypothesized that personal consumption values has a positive and significant relationship towards responsible environmental behaviour of tourists, and responsible environmental behaviour has a positive influence on their destination choice. It is further postulated that this variable also acts as mediator between personal consumption values and destination choice.

**Figure 1: Research Framework**



### **3.2 Sampling Technique and Sample Size**

The sample population for this study was local and international tourists who have recently visited any one of the top three marine park islands located in Malaysia, namely Perhentian, Tioman and Redang islands. A purposive sampling technique was used whereby only millennial tourists aged between 18 and 38 years were targeted. Based on G\*power calculator, the sample size of 92 is considered sufficient with medium effect size ( $f^2=0.15$ ),  $\alpha$  level of 0.05 and power of 0.80 (Gefen, et al., 2000). A total of 500 survey questions were distributed to ensure high response rate.

### **3.3 Data Collection Methods**

The paper-based questionnaires were distributed via face-to-face method to local and international tourists arriving at the jetties from the three marine park islands. Filtering questions were asked before the survey were handed out to ensure that respondents were amongst the millennial age group and have recently visited the marine park islands. The researchers were present on-site to oversee and assist the respondents in completing the questionnaires. The data was collected over the period of 4 months (March – June 2019). Overall, a total of 409 usable questionnaires were returned, which yielded a response rate of 81.8%.

### **3.4 Questionnaire Design**

Based on the respondents' personal language preferences, they had a choice to answer the survey in English, Malay or Chinese language. Before the final questionnaires were distributed, a pre-test was conducted among panel experts consisting of tour guides and academicians. Some minor improvements such as the wordings in the questionnaire were changed to improve the clarity of the statements. The final questionnaire consisted of three parts whereby the first part had 22 questions measuring the five dimensions of consumption values that was adapted from Sweeney and Soutar (2001) and Phau et al., (2014). These questions were measured on a 7-point Likert scale ranging from 1 for "strongly disagree" to 7 for "strongly agree". In the second part of the survey, a total of 7 questions were asked to measure responsible environment behaviour (REB) and 3 questions on destination choice. The questions on REB were adapted from Chiu et al., (2014) whereas items measuring destination choice were adapted from Lam

and Hsu (2006). For this part, all the 10 items were measured on a 5-point Likert scale ranging from 1 for “strongly disagree” to 5 for “strongly agree”. As all the measurement items were adapted for this study, the scales were maintained accordingly as used in the previous studies. More importantly, the usage of different scale endpoints helps to reduce common method biases caused by commonalities in scale endpoints (Podsakoff et al., 2003). The last part of the questionnaire consisted of questions on demographic characteristics and their recent travel patterns to the marine park island.

### **3.5 Data Analysis**

The descriptive data was analysed using SPSS Ver. 22 and the partial least squares-structural equation modelling (PLS-SEM) technique was applied using Smart PLS Ver 3.0 software to further test the pre-conceived model. Considered as the second-generation multivariate technique, the PLS-SEM was conducted using a two-stage approach whereby the measurement model was first evaluated to determine the reliability and validity of the indicators towards the constructs. This is followed by examining the structural model to test the hypotheses by using a bootstrapping method (500 resamples) as prescribed by Hair et al. (2017). As the model consisted of a formative construct - Personal Consumption Values (PCV), a global indicator item was included in the questionnaire to enable the researchers to conduct the higher order construct analysis (Mackenzie et al. 2011).

The common method variance needed to be addressed as this study used a self-reported measures from the same sample that may cause some bias or systematic error (Podsakoff et al., 2003; Tehseen et al., 2017). As such, the Harman’s single-factor test was conducted to remedy this as it is viewed as the most common method (Sharma et al., 2009). All items were loaded into a factor analysis in SPSS and the results indicated that the total variance explained was 79.5% and the restricted extraction of a single factor only explained 48.4% of the variance, thus inferring that the data did not have any prevalent common method issue.

## **4 Findings**

### **4.1 Demographic Profile**

Referring to Table 1, out of the total 409 respondents, there were 53.8% female respondents and 46.2% male respondents, considerably quite a balanced distribution of genders. The majority of the respondents were Malaysian tourists (63.8%), followed by Singapore (6.8%) and China (6.6%) tourists. Overall, the total foreign tourists who participated in the survey was 36.2%. This distribution was considered favourable as the distribution of tourists to all the marine park islands in Malaysia based on 2016 data was 60% local and 40% foreign tourists (Department of Marine Park Malaysia, 2017). In terms of age distribution, most of them were between the age of 23 to 27 years old (30.6%). With regards to their travelling patterns, 64.3% of them stayed for less than a week and a total of 54% of them travelled with their family. As for their choice of accommodation, 57.9% stayed in a hotel or resort. All the respondents have indicated that they have recently visited one of the marine park islands with Tioman Island having the most visit amongst them respondents.

**Table 1: Demographic Profile of Respondents**

Profile	Categories	Frequency	%	Profile	Categories	Frequency	%
Gender	Male	189	46.2	Age	18-22	102	24.9
	Female	220	53.8		23-27	125	30.6
Nationality	Malaysia	261	63.8		28-32	85	20.8
	Australia	3	0.7		33-38	97	23.7
	Bangladesh	2	0.5	Length of stay	< 1 week	263	64.3
	Britain	4	1.0		1 week	73	17.8
	Cambodia	1	0.2		1-2 weeks	26	6.4
	China	27	6.6		2-4 weeks	21	5.1
	France	14	3.4	> 1 month	26	6.4	
	Germany	5	1.2	Travel company	Alone	45	11.0
	India	2	0.5		With family	221	54.0
	Indonesia	8	2.0		With friend(s)	143	35.0
	Iran	4	1.0	Accommodation	Hotel/Resort	237	57.9
	Italy	2	0.5		Apartment	30	7.3
	Japan	5	1.2		Hostel	46	11.2
	Lithuania	1	0.2		Homestay	78	19.1
	Malta	1	0.2	Others	18	4.4	
	Netherlands	3	0.7	Marine Park Island Visited	Tioman	217	53.1
	New Zealand	4	1.0		Redang	159	38.9
	Philippines	10	2.4		Perhentian	153	37.4
	Poland	4	1.0				
	Republic of Korea	4	1.0				
Singapore	28	6.8					
Sudan	1	0.2					
Syria	1	0.2					
Ukraine	1	0.2					
Tanzania	2	0.5					
Thailand	1	0.2					
USA	6	1.5					
Vietnam	3	0.7					
Yemen	1	0.2					

## 4.2 Measurement Model Assessments

### 4.2.1 Convergent Validity

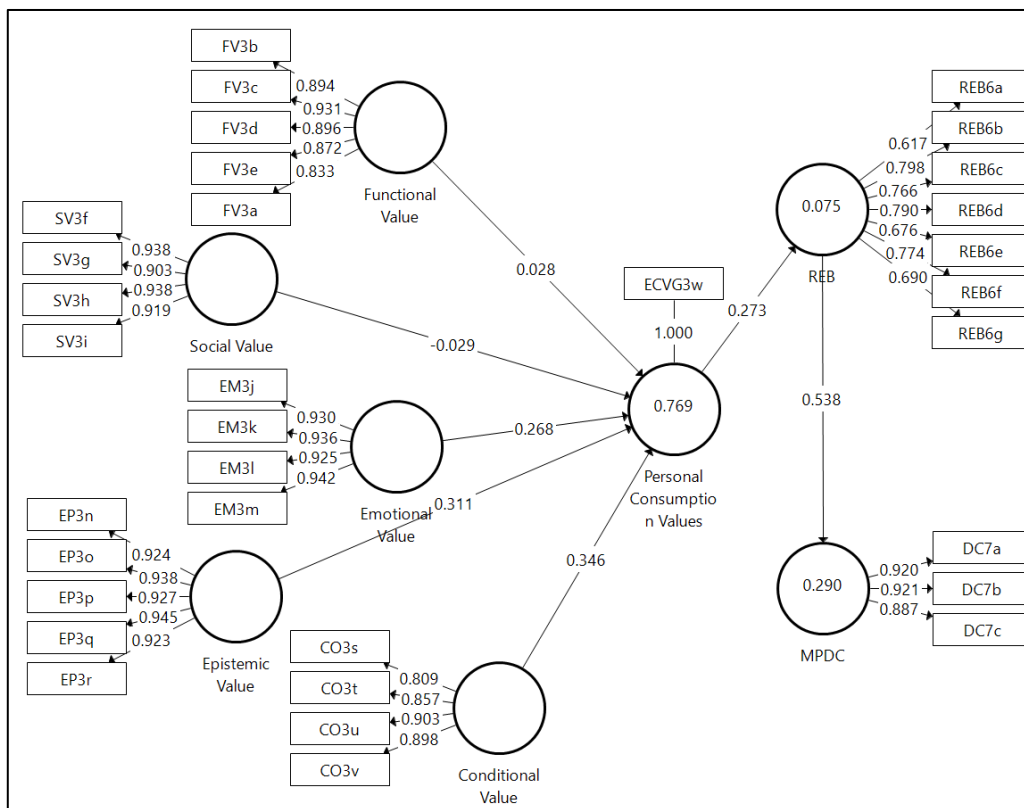
First, the convergent validity and the discriminant validity is assessed in the measurement model provided in Figure 2. The measurements items are considered acceptable if the standardized loading values are more than 0.7; Cronbach's alpha are greater than 0.708; CR values are greater than 0.8 and AVE values are more than 0.5 (Hair et al., 2010). The results of factor loadings, composite reliability (CR), Cronbach's alpha and average variance extracted (AVE) of all the measurement items for the first order constructs are summarized in Table 2. Results indicate that only the loadings for REB6a (0.617), REB6e (0.676) and REB6g (0.690) were all slightly below 0.70, however as the CR (0.89) and AVE (0.537) values met the minimum thresholds, these items were maintained. All other measurement items satisfied the requirements and met the convergent validity suggesting that items are reliable and valid (Hair et al., 2014).

To evaluate the formative measures, a redundancy analysis is conducted to determine its convergent validity by creating a new path model drawn separately to predict the single measurement item. As depicted in Table 2, the formative construct of Personal Consumption Values' path coefficient is 0.858; above the recommended threshold of 0.70, indicating that the overall construct has sufficient convergent validity (Ramayah et al., 2018). Additionally, the collinearity among the formative items of the construct were determined by inspecting the value of the Variance Inflation Factor (VIF). Table 2 shows that the VIF values for the five consumption values dimensions range between 2.32 and 7.273. The scores are less than 10,

confirming that no critical multi-collinearity exists among the constructs and all items are retained (Hair et al, 2010).

Next, the significance of outer weights for the formative measurement items were determined by conducting a bootstrapping of 500 resamples. Table 2 reveals that the formative indicators of emotional, epistemic and conditional values are found to be significant ( $t$ -value > 1.645), except for social value and functional value. However, the consumption values theory by Sheth et al., (1991) and other past studies (see Ladhari and Tchetgna, 2014; Biswas and Roy, 2015) have provided evidence that both the indicators of social value and functional value dimensions are relevant and thus, both are retained in this study.

**Figure 2:** Assessment of Measurement Model



**Table 2:** Measurement Model Results

<b>First-order Construct</b>	<b>Second-order Construct</b>	<b>Item</b>	<b>Scale</b>	<b>Loading s/ Weights</b>	<b>CR/ t-values</b>	<b>Cronbach Alpha</b>	<b>AVE/ VIF</b>
Functional Value		FV3a	Reflective	0.833	0.948	0.931	0.785
		FV3b		0.894			
		FV3c		0.931			
		FV3d		0.896			
		FV3e		0.872			
Social Value		SV3f	Reflective	0.938	0.959	0.943	0.855
		SV3g		0.903			
		SV3h		0.938			
		SV3i		0.919			
Emotional Value		EM3j	Reflective	0.930	0.964	0.951	0.871
		EM3k		0.936			
		EM3l		0.925			
		EM3m		0.942			
Epistemic Value		EP3n		0.924	0.970	0.962	0.867
		EP3o		0.938			
		EP3p		0.927			
		EP3q		0.945			
		EP3r		0.923			
Conditional Value		CO3s		0.809	0.924	0.891	0.753
		CO3t		0.857			
		CO3u		0.903			
		CO3v		0.898			
Responsible Env Beh		REB6a	Reflective	0.617	0.890	0.855	0.537
		REB6b		0.798			
		REB6c		0.766			
		REB6d		0.790			
		REB6e		0.676			
		REB6f		0.774			
		REB6g		0.690			
PCV Global item Destination Choice		SIM	SIM	N/A	N/A	N/A	N/A
		DC7a	Reflective	0.920	0.935	0.896	0.828
		DC7b		0.921			
		DC7c		0.887			
	<i>Personal Consumption Values</i>	Path Coefficient	0.858				
		<i>Functional Value</i>	<i>Formative</i>	<b>0.028</b>	<b>0.495</b>	N/A	<b>2.320</b>
		<i>Social Value</i>		<b>-0.029</b>	<b>0.636</b>		<b>2.620</b>
		<i>Emotional Value</i>		<b>0.268</b>	<b>3.436*</b>		<b>7.273</b>
		<i>Epistemic Value</i>		<b>0.311</b>	<b>4.105*</b>		<b>6.791</b>
		<i>Conditional Value</i>		<b>0.346</b>	<b>5.582*</b>		<b>3.813</b>

Note: AVE= Average Variance Extracted; CR = Composite Reliability; SIM = Single Item Measurement; Sig at t-values > 1.645\*

### 4.2.2 Discriminant Validity

The measurement model's discriminant validity is then examined to determine whether the items are measuring different constructs and if each construct was statistically dissimilar to each other (Henseler et al., 2014). To confirm the discriminant validity, Table 3 depicts the results using the Fornell and Larcker Criterion. According to the results, the square root of the AVE (diagonals and bolded) are all above the values of the off-diagonal variances among constructs, thus establishing the discriminant validity. In this instance, there is no serious multicollinearity issue that exist among the measurement items for each construct.

**Table 3:** Discriminant Validity (Fornell-Larcker Criterion)

Constructs	1	2	3	4	5	6	7	8
1. Conditional Value	<b>0.868</b>							
2. Emotional Value	0.829	<b>0.933</b>						
3. Epistemic Value	0.822	0.912	<b>0.931</b>					
4. Functional Value	0.704	0.699	0.721	<b>0.886</b>				
5. Destination Choice	0.167	0.164	0.156	0.304	<b>0.910</b>			
6. Personal Consumption Values	0.823	0.836	0.839	0.665	0.157	<b>1</b>		
7. Responsible Env Beh	0.295	0.279	0.247	0.336	0.538	0.273	<b>0.733</b>	
8. Social Value	0.716	0.766	0.733	0.636	0.155	0.670	0.204	<b>0.925</b>

### 4.3 Structural Model Assessment

Upon satisfying the measurement model's reliability and validity assessments, the structural model's path analysis is executed to confirm the relevant hypothesized relationships in this study. The estimated standardized beta coefficients of the structural model is examined to determine the strength of the relationship between the variables. Additionally, the coefficient of determination ( $R^2$ ) indicates the amount of variance explained by the independent variables (Hair et al., 2014). Results of the structural model analysis are provided in **Table 4**.

The predictor of personal consumption values on responsible environmental behaviour was confirmed to be significantly positive ( $\beta = 0.273$ ,  $p < 0.05$ ). However, the  $R^2$  value of 0.075 is considered weak, whereby indicating that only 7.5% of the variance in REB is explained by PCV. On the other hand, H2 is also supported whereby responsible environmental behaviour is also positively related to destination choice ( $\beta = 0.538$ ,  $p < 0.05$ ). The  $R^2$  value of 0.290 is substantial as suggested by Cohen (1988) and this indicated that 29% of the variance in DC can be explained by REB.

The mediation hypothesis is tested using the bootstrapping technique. The results in **Table 4** shows that the relationship between PCV and DC is mediated by REB ( $\beta = 0.147$ ,  $p < 0.05$ ) are significant with t-value of 3.817. Thus, it can be concluded that the mediation effects of REB are statistically significant at t-value  $> 1.96$  and p-value  $< 0.05$ .

**Table 4:** Hypotheses Results

Hypothesis	Std Beta ( $\beta$ )	Std Error	t-value	p-value	R <sup>2</sup>		Decision	
					LL	UL		
H1 PCV → REB	0.273	0.065	4.199	0.000	0.152	0.404	0.075	Supported**
H2 REB → DC	0.538	0.04	13.393	0.000	0.451	0.606	0.290	Supported**
H3 PCV → REB → DC	0.147	0.039	3.817*	0.000	0.077	0.229	-	Supported***

Note: \*\*t-value  $> 1.645$ ,  $p < 0.05$ ; \*\*\*t-value  $> 1.96$ ,  $p < 0.05$

## 5. Discussions

This study posited that personal consumption values has a positive relationship towards responsible environmental behaviour. The empirical results of the present study confirm that millennial tourists' personal consumption values did have a positive influence on their responsible environmental behaviour. From this study, three dimensions of personal consumption values, which includes emotional value, epistemic value and conditional value contributed to their overall consumption values. Specifically, conditional value had the highest contribution, followed by epistemic value and emotional value towards the overall consumption values. Conditional value is perceived as a situational preference whereby tourists gives consideration to the current environmental situation or in the case of being offered with some sort of an incentive. This includes the facilitation provided by the marine park management that eases them or the worsening condition of the parks urging them to behave more responsibly. These conditions act as a pull factor that motivates and attract tourists to behave more responsibly. However, in comparison to urban destinations, tangible and intangible incentives were found to have no influence on tourists' willingness to participate in conservational programs especially in nature-based destinations (Line, Hanks and Miao, 2017).

Furthermore, epistemic values refer to the tourists' feelings of excitement when they are experiencing something different or unique at the marine park islands. This is in view that marine park islands acted as an escapism for them and visiting the islands made them feel more pleasurable. Positive emotional values are feelings of happiness and relaxation that arises from the tourists' evaluation of their travel experience. More distinctly, a pleasant activation of their emotions would increase their overall consumption experience and result in a positive evaluation. Although tourists were said to enjoy the utilitarian benefits of a holiday, they have been found to place more importance on the hedonic benefits (Chandon et al., 2000). Accordingly, tourists' sensory dimensions play an important role in forming their overall experience (Agapito, Mendes and Valle, 2013).

This is consistent with majority findings on the characteristics of millennials, who are said to view travelling as an opportunity to experience a new culture (Cavagnaro and Staffieri, 2015). In this notion, the main reasons for their travelling consumption behaviours is driven by internal needs or intrinsic factors. Millennials travel as they desire to achieve self-fulfilment and emotional needs. Drawing from this, millennials are the appropriate target market for ecotourism sector. Millennials have been said to have stronger desire to participate in social and environmental campaigns (Valentine and Powers, 2013). In practical terms, pro-environmental programs should not be mundane but should be exciting, meaningful yet challenging to create an impact on the millennials' emotions and epistemic values. For example, over 600 scuba divers recently set a world record by being the largest group of divers to simultaneously collect plastic debris from the ocean floor in Florida (Independent News, 2019). Tourists' participation in such conservational programs is able to create an unforgettable emotional and epistemic experience that has an overall positive impact on the environment.

Moreover, results of this study have also confirmed that responsible environmental behaviour is a precursor and also acts as a mediator between personal consumption values and destination choice. In terms of product repurchase, Olsen (2007) proved that customer involvement is an important mediator. Millennial tourists' consumption values result in their destination choice of marine park islands through their involvement in green activities. In an online study conducted on tourists from four English-speaking countries (Australia, United States, United Kingdom and Canada), engagement in voluntary environmental activities was significantly associated to responsible travelling decisions (Juvan and Dolnicar, 2017). Subsequently, park visitors who developed a stronger sense of belongingness had a higher tendency to behave responsibly (Ramkissoon et al., 2013). It is suggested that the marine park's management



should highly encourage visitors to behave responsibly, either through policy enforcement or by organizing consistent eco-friendly programs as part of their ecotourism experience. On-site responsible environmental behavioural items can accurately reflect the behaviours of tourists (Lee et al., 2013). Closer to home, Fuze Ecoteer works closely with the Department of Marine Park and Reef Check Malaysia on the Perhentian Marine Research Center (PMRC) that offers dive courses for volunteers to develop skills in coral management, seagrass watch and overall marine ecosystem monitoring (Ecoteer, 2019). As a result of the amazing experience, positive social media reviews and testimonials were found among the volunteers who immersed themselves in the conservation project at PMRC. They developed stronger bonds to the destination and have indicated that they would most likely to return (Fuze Ecoteer Facebook page, 2019). In a study conducted on young local residents of an island holiday destination in Spain, it was concluded that attachment and familiarity influenced their willingness to travel more in the island and recommend the island to outsiders (Martínez-González et al., 2016). Emphasis should be placed on programs that could embed a pleasurable and memorable travel experience in the marine parks not only among foreign visitors, but also the local tourists to reinforce their revisit choice to the islands. Overall experience have been found to influence word-of-mouth, visit intention and destination loyalty (Fujioka, 2009; Rivera and Croes, 2010; Hosany and Prayag, 2013).

The findings indicate that the tourists' development of consumption values and destination decision are created through their active and voluntary behaviour in various pro-environmental practices. Contradictorily, tourists' active participation of general green behaviours at home does not necessarily mean that they will engage similarly when they are on holiday (Bergin-Seers and Mair, 2009). Thus, it is believed that marketers and marine park authorities should focus on actively involving millennial tourists in pro-environmental activities in the marine park itself to attract the right segment of tourists continuously. This includes boosting their participation in recycling efforts, encouraging waste management and self-regulation towards the park's rules while promoting knowledge-sharing among visitors on non-disruptive behaviours towards the natural flora and fauna. Besides this, park authorities should also consider making other aspects of their visit more environmental-friendly by encouraging accommodation providers to adopt green practices and tour operators to organize more eco-friendly tour packages. The tourists' voluntary behaviours towards the environmental causes in the marine parks itself would enable them to act as the co-producer of their overall travel experience, hence positively influencing their value creation (input) and decisional (output) process.

## **6. Conclusion and Future Research**

Individuals who are born in the millennial generation have been said to differ in terms of their values, behaviours, consumption patterns and preferences (Gardiner et al., 2012). Knowledge on responsible millennial tourists are therefore significant, as they are the generational group that has paved the development of niche or alternative tourism sectors. Based on the results, the present study uncovered that personal consumption values dimension as a formative construct did have a significant but weak influence on tourists' pro-environmental behaviours. Advancing from this, it further confirms the positive influence of pro-environmental behaviours towards millennial tourists' preference for choosing marine park islands as a holiday destination. The finding is relevant as the responsible behaviour of tourists measured is site-specific. This study provides evidence that tourists who partake in conservational activities such as sorting their trash and helping to maintain the natural setting develop a more memorable experience and are inclined to choose an ecotourism destination.

Though the results of this study gathered that personal consumption values have a weak influence on pro-environmental behaviour of millennial tourists, it is evident that other psychosocial and external factors may have bigger impact on their behaviours. For instance, a recent study has confirmed that cultural differences may exist among tourists that could influence their motivations and relationships with the nature (Jiang et al., 2019). Besides, there could exist some form of barriers or perceived risks that may impede their behaviours. It is said that customers face various types of risks such as time, physical limitations and financial risks that creates a negative risk perception (Wang et al., 2013). Conditional values as prescribed in this study may have address this, but it is insufficient to encompass all other possible challenges based on each individual situation. In view of this, it is suggested that future studies may consider conditional value as a moderator variable. Tourists' motivation to behave a certain way is often complicated, multifaceted and influenced by different situational context. Since this study is limited to the millennial visitors in marine park islands only, a comparative study can also be conducted to evaluate the disparity between the millennial tourists' behaviours and decisions in other nature parks such as the national park or wildlife reserve parks. This would provide a broader assessment on the influence of the varied eco-friendly activities in a slightly different setting. Previous studies in the literature reviews have identified that differences of behaviour may exist between travellers from different regions. In view that this study did not distinguish between local and international tourist groups, it would be worthy to examine if their nationality and cultural background would influence their behaviour and choices. Tourism marketing research should shift away from focusing too much on factors that only attract financial growth and tourist numbers but should seek to discover knowledge on niche segments and ways to encourage a more balanced tourism development that cares for the locals and its ecosystem. Essentially, environmentally responsible millennial tourists like to feel personally connected to the ecotourism destination.

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## DIVE AND NOVELTY SEEKING IN EXPERIMENTAL ARTIFICIAL REEFS

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**Abstract:** Scuba diving has opened a way to explore the underwater world. Today, hundreds of different diving area are in use for tourism purposes. Coral reefs and underwater cultural heritage such as shipwrecks, sunken cities, relics and other remains have been popular tourist destinations for the traveller who seeks novelty and variety, for many years. Over recent decades, artificial reef areas, a wide range of wrecks (ships, aircraft, tanks or cars) and thematic parks (monuments, archeologic parks), have become diving locations and provided tourists with new knowledge about the underwater environment. These can have considerable benefits for both tourists and host communities. Apart from diving destinations, some environmentally friendly experimental methods and setups have also been placed on the seabed, for example, plant cultivation, wineries, regeneration centres for coral reefs and even hotels and restaurants. This paper aims to examine, through content analysis and e-mail interviews, how underwater cultivation of terrestrial plants park (Italy), underwater wineries (Croatia and Spain) and other similar structures or projects around all over the world may create novelty for recreationists in the future. This study also questions which experience that raising to the surface in such a variable environment. This paper indicates that the experience formed through new knowledge about marine environments, awareness, understanding the wildlife and more importantly, the formation of marine surroundings through scientific studies and observations offers novelty and a new implication for recreational scuba diving attractions.

**Keywords:** Diving, Artificial Reefs, Novelty Seeking, Marine Tourism, Experimental

### Introduction

Scuba diving tourism provides a contemporary tourist experience inside a unique underwater environment. Scuba diving attractions are dominated by those in the area of coral reefs, located in tropical latitudes, the most known of which are the Great Barrier Reef in Australia and the Red Sea in the Middle East. Economically these are very important as coral reefs contribute to the global tourism industry an estimated USD 10 Billion in 2012 (Huang & Coelho, 2017, cited from NOAA, 2012). Today, marine-based tourism employs 2.4 Million people with USD 59 Billion in revenue in USD 124 Billion GDP (NOAA, 2019). In the Similan Islands (Thailand) the annual revenue of using the reef as a touristic attraction increased about 20 times from USD 22,000 to USD 460,000 between 1999 and 2003 (Tapsuwan & Asafu-Adjaye, 2008). About 30% of the world's reefs (over 9% of all the world's coral reef countries) are in use in the tourism sector, with a total yearly value estimated at nearly USD 36 Billion. These figures represent the total of within-country expenditure by international and domestic tourists (Spalding et al., 2017). Besides natural coral reefs, other sites, artificial or man-made reefs, replicates certain characteristics of the natural reef, and also attract divers to explore underwater. Economically and in terms of attractiveness, artificial reefs have considerable value for the current and future implications among divers (Oh et al., 2008).

Artificial reefs may offer divers interesting, riveting and various diving experiences (Edney, 2017) in a wide variety of marine-based attractions. Scuba diving tourism reassures divers seeking contemporary tourist experience with an incomparable and unpredictable underwater environment. The artificial reef can be designed for different purposes, such as being created for the new underwater habitat and found as a form of sunk objects like historical shipwrecks

(Lück, 2008) or some environmentally friendly experimental (biotic or abiotic) structures. As Cater and Cater (2007:55) state artificial reefs are “an alternative resource that is seeing increasing intervention and development in order to reduce pressure on natural reefs ...” which providing an alternative area (sacrificial or recreation areas) or touristic product in the marine environment where there is lack of natural coral reefs but a sense of newness, curiosity and novelty.

Novelty seeking is one of the strong emotions in understanding destination choice behaviour (Babu & Bibin 2004) formed by desiring to experience new environments. Among all diving motivations, novelty seeking has been considering as “a key motive” (Lee & Crompton, 1992:733) which develops out of scuba divers’ enthusiasm, excitement and curiosity. From a diving tourism perspective, novelty seekers or thrill-seekers are described as those who are willing to take risks and are interested in having new experiences through exploring pristine underwater surroundings (Cohen 1972; Keng & Chang 1999; Mo et al., 1993, 1994). Currie (1997) states that some tourists are chasing novel experiences different from their daily life while following touristic purposes and motivations.

### **Scuba Diving**

Scuba diving has become a popular touristic activity over the last decades (Garrod & Gössling, 2008) that can offer natural, historical and cultural experiences. These are combined with experimental, entertainment and sportive dimensions in countries all around the world and attracts millions of divers, both certified and amateurs (Musa & Dimmock, 2013). Recreational scuba diving is defined as divers, who dive (maximum depth of about 40 meters for advanced divers) and seek planned scenery, shipwrecks, diverse marine biology structures (Tabata, 1989; Roupheal & Hanafy, 2007), in the marine environments. As Cater (2008) notes, scuba diving is often motivated by the search for difference and an alien environment for humans. The demands of the desire of seeking this novelty constitute the concept of scuba diving tourism. Scuba diving tourists expect to have an unusual experience from pristine natural resources or in well-planned underwater surroundings. According to the Professional Association of Diving Instructors – PADI (2019) over a million new certifications are given to recreationist and novelty seekers, every year. In this activity, the physical and ecological environment of coral reefs and designed diving areas unify behaviour of divers by way of satisfaction level (Medio et al., 1997; Roupheal & Inglis, 1997, 2001, Barker & Roberts, 2004) and unique and exciting experience (Cater & Cater, 2007; Dimmock, 2009) in and around the marine resources.

Through technological developments, increasing social interaction (via social and visual media), education and accessibility have motivated tourists to dive and seek novelty in different atmospheres and environments beneath the water. Today there are commercial and scientific developments in all regions with many planned scenarios, hotels, underwater farms, wineries and restaurants, for example. In the wide variety of marine-based attractions, artificial reefs may represent interesting, challenging, and diverse diving experiences (Edney, 2017) for divers, where otherwise the environment may be limited by the extent of the diversity of surrounding wildlife.

The value of scuba diving, both in coral and artificial reserves, in terms of economic contribution for marine tourism, is therefore significant (Cater, 2008). Today we observe a global multi-billion-dollar industry (Lucrezi et al., 2017) with many benefits (Anderson & Loomis, 2011) while at the same time scaling up the popularity of scuba diving (Dimmock & Musa, 2015). As Albayrak, Caber and Cater (2020) have shown, scuba diving is evolving into a mass tourism activity in many destinations without coral reefs. However, diving into specific diving areas, where there is the natural diversity and biological resources, for instance, well-preserved coral reefs and well-organised varied artificial reef areas like shipwrecks is always a

better option for divers. This preference helps to create an economic market (Spalding et al., 2017; Tynyakov et al., 2017) in marine-based tourism, which aids reef conservation and promotes more diving areas. As Kirkbride-Smith et al. (2013) and Tynyakov et al. (2017) mention divers increasingly prefer to dive in artificial reefs areas due to viewing a planned underwater marine scenario and increased photographic opportunities. Simultaneously these may originate some new businesses for host countries. This is because as Tabata (1992) noted, scuba diving is instrumental in running a lucrative marine tourism business for the local economy (Stolk et al., 2007). In Florida, for example, the economic value of artificial reefs generates USD 3.1 Billion in output with more than 3,330 submerged reef structures placed in state and federal waters. These reef constructions provide over 39,000 jobs, generate \$1.3 Billion direct income and produce USD 250 Million state revenues for Florida (Huth et al., 2015) from tourism, fisheries and other sectors. In the context of these figures, scuba diving specifically creates over 13,000 jobs, in excess of USD 1 Billion output, about USD 417 Million income and approximately USD 80 Million in state revenue.

### **Novelty Seeking**

Novelty stands for the quality of being new and unusual. Novelty seeking is an important interaction between tourists and tourism activities. One of the fundamental motivations for tourists is seeking variety (Chen & Paliwoda, 2004) and novelty (Zbucnea & Radu, 2009; Assaker & Hallak, 2014). Novelty seeking has been examined since the 1970s in the tourism context. For example, in the late 1970s, Crompton (1979) stated that novelty seeking is a way to get a new experience without necessarily new knowledge or as Steenkamp and Baumgartner (1992) indicated, it is a discovering new place in order to have prestige and draw attention. This approach may be categorised into four dimensions which are a thrill, change from routine, alleviating boredom and surprise (Lee & Crompton, 1992) in terms of tourist behaviour. Novelty seeking is also known as a way to make a comparison between experience and the perceived value of the present (Pearson, 1970) which means having unique, unusual and new experiences (Mak, 2015) that differ from someone's comfort zone. Novelty seeking is considered as a typical tourist behaviour referring to their desire to explore or preferences to have new experiences and this is distinguished from a personal characteristic which is steady and viable (Mak, 2015). In terms of scuba diving tourism, novelty refers to a range of diving experiences that ensure divers are able to dive not only coral reefs but also artificial and experimental reefs in the underwater environment with mysterious surrounding and novelty itself.

### **Artificial Reefs**

Artificial reefs are widely acclaimed attractions for diving tourism. Submerged recreational areas in the marine environment may offer different experiences with economic benefits to businesses, organizations, communities and destinations. They are accessible in different forms of structure, relics, concepts and themes. The European Artificial Reef Research Network (EARRN) defines an artificial reef as 'a submerged structure placed on the substratum (seabed) deliberately, to mimic some characteristics of a natural reef' (OSPAR Commission, 2013:3). Artificial reefs are used for both consumptive and non-consumptive purposes, often providing a resource in sandy coasts or close to the severely threatened coastline of coral reef habitats that were previously relatively unproductive or had poor natural resource development. They have a significant potential to increase the biodiversity of habitats around them (Pickering, Whitmarsh & Jensenà, 1999) over a relatively short period. It can be seen that the changes over time and natural effects on these objects offer some good opportunities for picturesque diving (Edney, 2006), as well as a habitat for marine life and submerged areas. As Kirkbride-Smith et al. (2013) address, divers would often prefer to dive in artificial reefs areas because of the



concentrated and planned opportunity to view underwater marine life and increased photographic opportunities.

These created sub-aqua environments may enhance destinations` values, knowledge and experiences that result in a unique atmosphere. Besides natural, commercial, cultural and historical values, artificial reefs can help to create awareness among people towards the conservation of the world and climate change; providing a fundamental form of the protected marine environment; and encourage tourists to make an effort through connection with values. In addition to these attributes, artificial underwater scenery may improve the sustainable principles of recreational scuba diving (Stolk et al., 2007). Managing artificial reefs and their remains is often a less risky experimental design and practice for promoting sustainable management in the marine zone or marine protected areas (MPAs). They may have a direct and indirect benefit for individuals, communities and societies (Torland et al., 2015; Moyle et al., 2017). By means of experimental and observational learning, it may be possible to form reasonable, effective and manageable integrative sustainable standards for the future of marine-based tourism. The benefits derived from marine environments depends on reliable conditions of diversified beautiful natural areas, wildlife reserve and nature and authentic or enriched cultures (IUCN, 2018). This unity-in-diversity within one destination helps to create and sustain not only a protected marine environment but also socio-economic and sustainable development in the long-term at both global and local scales.

## Methodology

This paper aims to examine how tourists satisfy their novelty seeking through diving on artificial reefs and how experimental structures are created as a new way of having these experiences. As many of these artificial reefs feature environmental messages, the study examines how this is communicated to guests as an important element of creating a novelty in underwater experience. Using case studies from Italy, Spain, Croatia, Norway, Sweden, USA, Dubai, Tanzania and Maldives, we illustrate different techniques to inform divers about the facets of these attractions prior to, the dive itself, and after diving periods which create a unique sub-aquatic experience. This paper also questions the degree to which atmosphere can be novel in such a variable natural environment, and in addition to this, which experiences can be had by diving in these new structures. When an artificial structure is located on the bottom of the sea it is not definite how the surroundings will growth and how marine creatures and organisms may occupy this new submerged home (Bideci & Cater, 2020). Therefore, each artificial diving area presents a different experience, which helps to create a unique novelty.

**Figure. 1.** *List of E-Mail Interviews*

Nemo`s Garden (Italy)	E-Mail	Project Coordinator
Crouse Treasure (Spain)	E-Mail	General Manager
Edino (Croatia)	E-Mail	General Manager
Utter Inn (Sweden)	E-Mail	Marketing Manager
wUNDERful (Norway – Visit Norway)	E-Mail	Marketing Manager
Niyama (Maldives)	E-Mail	General Manager
The Conrad (Maldives)	E-Mail	General Manager
The Manta (Tanzania)	E-Mail	General Manager
Jules Undersea Lodge (USA)	E-Mail	Project Manager
Atlantis The Palm (Dubai – on-shore)	E-Mail	Marketing Manager

In this study, it is examined how the new types of artificial reefs function as experimental reefs in the sense of their effectiveness in tourism concepts. In recent years, the underwater realm

has witnessed many experimental research and businesses development in its environment, termed the 'blue economy'. From all around the world, adventurers, entrepreneurs and scientist have set up new businesses and scientific research models in different forms. This paper has also identified hotels and restaurants in this niche market those together form case studies for the examination of these concepts. For these purposes, this study used content analysis of websites and e-mail interviews (Fig. 1.) with organisations and businesses. This paper also shows that experimental kinds of reefs can be classified into four categories according to Lee and Crompton (1992) framework, which are thrill, change from routine, alleviating boredom and surprise.

For this study, e-mails sent in February 2019. Responses received by February and March 2019. Because of short responses and lack of up-to-date statistics, results have been interpreted in the manner of services provided and received experience. Businesses have not been willing to share data about economic profit and activities. In the other hand, scuba diving is not seemed as business model hotels. The chosen organisations are business have been determined according to the feature of the artificial reef and scuba diving attractions around structures. All organisations and businesses provide scuba diving services around the formation and claim as an artificial reef (excluding onshore structure, which is located in the aquarium). The plant park and the restaurant are also part of a scientific research project. This paper aims to address a wide and different range of contemporary artificial reef formations from all over the world.

## Results

Technological developments, social awareness, media and education have motivated tourists to go diving in different surroundings. Today, many coastal regions promoting their coral reef assets and seaboards in different planned scenarios, with hundreds of wildlife marine reserves, wrecks, marine protected areas, caves and artificial settings, for instance. Therefore, there are thousands of areas for different diving purposes that draw the attention of people who seek unusual experiences from countries all around the world. Among new setting areas, artificial reefs are one of the leading diving attractions and experimental reefs have aroused divers` curiosity. For example, a new farming method has been established on the seabed and named Nemo`s Garden Project, on the coast of Noli, Italy. In another example, grapes have been fermenting at Underwater Wineries in Spain and Croatia, since the 2010s, named Crusoe Treasure and Navis Mysterium, respectively.

In *surprise* category, an example, which has submerged in Italy, a project to grow crops in underwater biodomes called Nemo`s Garden Project, may be an example of future developments in diving environments. Here the Ocean Reef Group launched an underwater gardening and cultivation project in 2012. Acrylic structures, resembling large balloons, hold approximately 2,000 litres of air and float at different depths, between 15 and 36 (4.5 to 11 meters) feet below the surface of the water. This project aims to create a method used as an alternative to conventional agriculture, especially where plants are hard to grow. The microclimate and thermal conditions within the biospheres are optimal for plant growth and crop yields, similar to a conventional greenhouse, yet they require no additional energy sources. The use of renewable energy harnessed from the sun and fresh water obtained by desalination of seawater, make this a self-sustainable system. The operator calls researchers to these biodomes with their self-sustaining atmosphere "Agrinauts". The project coordinator says, "every year, we are discovering new possible applications for the biospheres" (Nemo`s Garden, 2019). These include eco-tourism, fish farming, seaweed farming, or as scientific research labs and underwater stations for monitoring wildlife.

Recreational scuba diving is not a primary business model for Nemo`s Garden however, this activity helps to raise reasonable funding for future research projects. The project operator does not have a diving centre as a business department. Alternatively, the centre collaborates with

some of the diving centres in the area. There are a few diving schools around the underwater cultivation of terrestrial plants centre. The closest dive centre has reported between 250 or more divers have been taken out to the Nemo's Garden habitat, each season from June to September. The project site attracts divers, swimmers, free divers and snorkelers throughout the year with constant increment. The centre is also open to the public and can visit the habitat with or without the support of a diving centre; therefore, it is hard to estimate the exact number of visitors.

The project draws attention from different sectors and people from media, universities, private companies and tourists all over the world. As identified, Nemo's Garden is a new touristic attraction with biosphere and installation of the artificial reef which provides popularity through the instrument of mass and social media exposure and touristic demand. Something new and novelty to offer to tourists (underwater communication, guided tour through the different biospheres, explaining the project, scientific experience); and repopulation and protection awareness of the surrounding marine area. In addition to this, it is providing a live stream channel on YouTube and provides information about the project.

In Spain and Croatia, winemakers are exploring possibilities to use underwater reefs to develop the ageing process in viticulture and *change the routine*. In northern Spain, a winery places bottles of wine to age on the seabed for up to six months (Underwaterwine, 2019). Whilst popular with consumers these also offer scuba divers a unique underwater and above water experience. In Croatia, in a small village called Drače, in the middle of the Pelješac Peninsula, Winemakers put the glass bottle in the sea to a depth of 18-25 meters for more than 700 days (Edinovina, 2019). Apart from production, subaquatic vineyards provide scuba diving experiences within their business models. These attractions run by vineyards' organisations as a part of the wine tourism experience.

Longer periods in the marine environment providing by current and planned underwater facilities (Cater & Cater, 2007) for accommodation. These facilities may provide tourist who *alleviating boredom* for novelty. For example, Jules Undersea Lodge, which uses the shell of an ex-research laboratory, operates in Key Largo, Florida, USA. Whilst accommodating only two couples, the facility provides for a unique experience. Qualified scuba divers enter the hotel through a pressurized wet room in the base of the structure and can take meals prepared by a 'mer-chef' who dives down to serve them (Jules Undersea Lodge, 2019). There are also opportunities in Tanzania at Manta Resort, Pemba Island; in Sweden at Utter Inn, Västerås; in the Maldives there is a hotel, with has the world's first all-glass underwater hotel suite, run by one of the hotel chain, The Conrad Maldives Rangali Island; and in Dubai people engage with underwater in Aquarium rooms at Atlantis The Palm with 65.000 marine animals seen through panoramic windows.

Compared to pressurized wet rooms, the first largest and research-friendly underwater restaurant (wUNDERful) easily accessed by walking in Southern Norway with seating capacity for 100 guests, has opened in March 2019, which *thrills* people. Several research environments that are focused on the development of knowledge within marine biology are involved so as to provide guests with an enhanced experience. Like a sunken periscope, the restaurant's window, like a panoramic screen, offers a view of the seabed as it changes throughout the seasons and varying weather conditions (Visit Norway, 2019). Half-sunken into the sea, the building's 34-meter long monolithic form breaks the surface of the water to rest directly on the seabed five meters below. The structure designed by full integration into its marine environment over time; as the roughness of the concrete shell will function as an artificial reef, by welcoming wildlife inhabit it.

## **Discussion and Limitations**

In the modern era, the underwater environment allows people to gain knowledge and explore new things about our world through experience. Technology provides people with a new realm by discovering depths both from surface and underwater. In these days and age, novelty seekers and travellers can dive and break new ground in different regions and diversified structures. According to mass and social media, some scuba diving activities can be found around experimental reef areas and businesses try to promote this attraction in surrounding of these formations. These structures quickly become part of the marine environment over the years. The development of marine life around the artificial reefs attracts both wildlife and recreational scuba divers. Artificial reefs created in many different forms. Each of them presents and offer unique and unusual experiences for tourists. As for that, the experience formed by new knowledge about marine environments, awareness, understanding the wildlife and more importantly formation of marine surroundings through scientific studies and observations offer novelty and a new implication for recreational scuba diving attraction.

In this paper, the new, experimental artificial reefs which biotic or abiotic artificial structures are questioned. Hotels, restaurants, wineries and underwater biosphere farming areas provide tourists experiences that are surprising, thrilling, differ from daily routine and a new way for who try to alleviate their boredom. Currently, the total number of market share is unknown. This is because scuba diving is not the primary purpose or business model for these organizations and diving activities around these structures are a relatively new and niche market. However, even if not their core purpose of a branch of activity, tourists who are willing to have novelty experience tend to visit and see the marine surroundings.

One of the important limitations of this study is the lack of descriptive information. New structures, in question, hotels, scientific areas and food & beverage facilities, are in their early period for having statistics by the way of scuba diving. This paper has interviewed the businesses and organizations` managers through e-mail however, operators and organizations do not have the necessary information and statistics to assist in their records. Even though scuba diving is a popular activity, statistics about the number of divers are limited and not accurate, especially for artificial and experimental reefs. Especially hotels, they do not pay attention to diving facilities apart from their main business model, accommodation. From the viewpoint of diving schools, experimental reefs are a new market for their operations and mostly depend on individual requests.

Consequently, recreational scuba diving around these new structures remains in early niche development. In future studies, examining the knowledge of novelty experiences through experimental artificial reefs will be helpful for researchers and businesses to establish a model. This study was carried out in order to discover the niche recreational scuba diving trends that provide more unique and unusual experiences for novelty seekers. By reason of the fact that experimental reefs are new phenomenon and scarcity of studies in the current literature, this study may help to fill this gap in the tourism context.

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## SPIRITUAL TOURISM: TRAVEL TO EXPERIENCE VORTEX ENERGY

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**Abstract:** Where the Earth is exceptionally alive with vortex energy has drawn the attention of visitors. Some visitors believe that the energy will enhance spiritual and physical health by way of a visit. This study examined this under-explored form of spiritual tourism by focusing on developing a visitor profile and the alignment of its market to sustainable tourism management. To study this niche tourism sector, research was conducted in a famous vortex tourist destination in the Southwest U.S. using a mixed methods approach. The methods included: an online business survey, an on-site visitor survey, a mail-back resident survey, and social media analysis. The business survey results show that vortex businesses are among the most common businesses in the destination. The visitor survey results show that vortex visitors have some characteristics similar to the general visitors to the destination (e.g., age, group size) and some characteristics that distinguish them from other visitors (e.g., gender, trip length). Vortex visitors' attitudes align closely with sustainable tourism principles. The resident survey results show a lower preference for vortex tourism in the community over other types of tourism. Finally, social media analysis shows that public opinions for vortex tourism in the community studied are mixed and range from beliefs in and disbeliefs about the vortex energy. The mixed methods approach provides a more robust and complex profile of this type of spiritual tourism. The findings of this research are useful for destination management, particularly from a sustainability approach, and can provide guidance for other vortex destinations and more broadly tourism for spiritual reasons.

**Keywords:** Vortex Tourism, New Age, Sustainable Tourism, Sedona, Southwest U.S.

### Introduction

Spiritual tourism has been popular in recent decades (Olsen & Timothy, 2006). Every year, millions of tourists head to holy destinations around the world (Jackowski, 2000). Traditional destinations for this market are often related to religious sites such as churches and temples (Digance, 2006). One of the newer types of spiritual destinations are metaphysical places such as those that possess the vortex energy (Coats, 2011). Some people believe that the vortex is a source of energy that exists where the life force of the planet is particularly strong, moving in a circular pattern and coagulating into funnels (Bryant, 1991). Presumably, a vortex is created by the Earth's magnetic field and manifests itself in limestone and mineral deposits, wind and water patterns, beautiful surroundings, and ancient heritage thus making it sacred ground (Rose, 2019; Vortex Hunters, n.d.). This pure Earth power promotes a sense of spiritual and physical well-being for those who are in tune with it. It also creates abnormal effects in the environment such as bending light, scaring animals, and twisting plants into contorted shapes (Brian, 2013). A vortex comes in different directions and types (Sanders, 2005). It can be up-flow where the energy flows upward from the earth or in-flow where the energy goes toward the Earth, feminine or masculine, and magnetic or electric. Its effects on people and environment depend on the types of the direction and energy. Only a few places worldwide are considered to be vortex sites, for example, Mount Shasta in California and Sedona in Arizona in the U.S.; Lake Titicaca in Bolivia; Uluru and Kata Tjuta rock structures in Australia; and Glastonbury in the UK (Laura, 2017; Timothy & Conover, 2006).

There is a segment of spiritual tourists that are interested in visiting vortex locations and businesses that provide related services; hence forming the niche market of spiritual tourism



related to the vortex (henceforth referred to as “vortex tourism”). Though spiritual tourism has been heavily researched; literature about spiritual tourism related to the vortex is scarce. More studies are needed to generate understanding of the sector. This study explored vortex tourism by surveying businesses, visitors, and residents to provide a robust view of this form of community-based tourism that attracts an international market. It also provided a comparison of vortex visitors with other types of tourists which has not been done in previous studies. In the era of sustainable tourism, management strategies place much importance on the development of sustainable tourism products that benefit the locality environmentally, socially, and economically. Hence, it is important to examine sustainability of vortex tourism based on visitors’ demographics, trip characteristics, and attitudes toward sustainable tourism. This study is the first to explore the alignment of this market segment to destination development initiatives such as sustainability. Findings can shape destination management and lay a foundation for further studies.

### **Literature Review**

Traveling for spiritual reasons has existed for a long time in human history and seems to be the oldest and common type of travel (Kaelber, 2006; Olsen & Timothy, 2006). Spiritual travel was mostly a religious practice in the early days. In the modern world, it has also become a form of tourism with the development of economies, advanced transportation and communication technologies, and an increased interest in leisure activities (Kaelber, 2006). Spiritual tourism has been popularized in recent decades (Olsen & Timothy, 2006). While there has not been a widely accepted definition of spiritual tourism, this study used the following definition of spiritual tourist as “ someone who visits a specific place out of his/her usual environment, with the intention of spiritual meaning and/or growth, without overt religious compulsion, which could be religious, non-religious, sacred, or experiential in nature, but within a divine context, regardless of the main reason for travelling” (Haq & Medhekar, 2017, p.522 ).

Spiritual tourism is often related to a pilgrimage. A pilgrimage refers to a journey to sacred places in search of connection with God, the divine forces, or cosmology (Digance, 2006). Pilgrimage destinations are natural or human-made sites that are attached to holy spirits, such as temples, churches, mountains, pilgrimage paths, architecture, and metaphysical places (Olsen & Timothy, 1999). Travellers to these sites expect to be set apart from the mundane daily world and be transformed into a different state (Eliade, 1961). They want to become a better human being through building social relations and connections with the surrounding environment that enables them to reflect on life, values, and ethics (Cheer, 2000). A number of pilgrimage travellers feel something is missing in their lives whether it is power, health, or a sense of meaning, and they believe the miraculous occurrence of something spiritual in a sacred places can help obtain transformation (Coleman & Elsner, 1995; Digance, 2006; Turner, 1973).

Many governments and tourism agencies encourage spiritual tourism as a way to promote heritage sites and to generate economic benefits (Olsen, 2003; Timothy & Boyd, 2003). Marketing campaigns and a growing interest in cultural and heritage sites have also attracted tourists to sacred places for reasons not associated with spiritual beliefs (Olsen, 2003). These tourists might come out of their curiosity or an educational interest in learning more about the site (Olsen, 2003; Shackley, 2001a). Spiritual tourism in this scenario refers to the market of tourists visiting sacred places more as sightseeing.

There are many ancient pilgrimage destinations some of which are attached to specific religions such as Jerusalem for Roman Catholic and Mecca for Muslims (Digance, 2006). New pilgrimages sites have also evolved (Digance, 2006). In the mid 1970s, spiritual tourists started to notice

places with vortex energy and increasingly have travelled to those places (Coats, 2011). Spiritual tourism in general has received much attention to become an important research area in sociology, tourism, and business (Cochrane, 2009; Simpson, Cloud, Newman & Fuqua, 2008). However, spiritual tourism that is related to vortex energy is one of the least studied topics in recreation and leisure, partly due to the scarcity of places worldwide. Few studies have mentioned, examined, and discussed vortex energy and the nature of visitation to vortex places (Coats, 2008; Coats, 2009; Coats, 2011; Duntley, 2015; Ivakhiv, 2001; Norman, 2014; Plate, 2009; Timothy & Conover, 2006). Such studies place vortex visitation as part of the New Age movement which “stresses the sanctity of nature, harmony of the cosmos, resurrection of ancient spiritual traditions, and self improvement in the realms of spirit, mind, and body” (Timothy & Conover, 2006, p. 139). New Ageism promotes simpler and ecologically oriented lifestyles to achieve personal meaning and self-transformation (Ivakhiv, 1997). The movement is believed to have emerged in the 1970s in California following the counter-cultural mysticism of the 1960s (Ivakhiv, 1997; Kyle, 1995). It quickly became a “pluralistic religious” mainstream in the U.S. during the 1990s with followers worldwide since more people became dissatisfied and stressed with contemporary society (Lengfelder & Timothy, 2000). Until the 2000s, the estimated number of New Agers was between 10 to 20 million across the globe (Aldred, 2000). New Age tourism related activities are considered pilgrimage trips to sacred places (Reisinger, 2005). During the 1970s, there was a strong interest in powerful energies of the Earth and forces of ancient civilizations; it was at this time that the vortex concept was introduced and became central to New Age activities in select places (Coats, 2011; English, 2002).

There are two types of New Age travellers, the “mere tourists” that return home shortly after the trips and the “genuine pilgrims” that travel for a long time from places to places to seek long-term spiritual transformation (Ivakhiv, 2003). The dynamics of New Age tourism enables the development of related services and facilities such as healing centers, spiritual communities, retreats, and commercial shops (Huntsinger, & Fernández-Giménez, 2000; Timothy & Conover, 2006). Coats (2011) discussed New Age visitors’ motives to experience sacred places, specifically to vortex places in Sedona, Arizona in the U.S. Accordingly, New Age followers visit different spiritual places including vortex sites to seek spiritual enlightenment, escape from pressures of modernity, and search for life guidance from the wisdom of ancient civilizations. New Age visitors in the study described the transformation they experienced after the trip such as “what Reiki (a form of life force energy) has done for me is to open me up to receive divine love and light and sharing with others” (Coats, 2011, p.207) or “As we walk the vortexes together issues are revealed. The quality of expansive energy begins with the beautiful terrain and continues through my body, opening my mind, expanding my awareness.” (Coats, 2011, p.208). Several scholars attempted to describe a profile of New Age tourists. Kyle (1995) and Tucker (2002) described most New Age pilgrim-tourists as white and female. According to Coats (2008), New Age tourists were at least 46 years old, had a median household income of \$94,200, and often came from Western states of the U.S. They were mostly day-trippers, who spent between \$190 and \$300 per day. Those who stayed overnight spent an average of three nights and spent between \$344 and \$400 per day. Half of the New Age visitors travelled with another person or in a group. Many had previously visited Sedona. Beside spiritual purposes, they also came to the destination for shopping, hiking, and visiting galleries and museums. This profile of visitors was not evidence-based for New Age visitors, but instead inferred from the characteristics of Sedona tourists as a whole.

Aside from exploring the history of the New Age movement and describing its tourism activities, past studies have illuminated the controversy surrounding this activity. According to Timothy and Conover (2006), some ritual activities have negative connotations. They may contribute to

environmental deterioration, such as rearranging rocks to create a medicine wheel or using candles in fire prone areas on public, tribal or private land. Some visitors leave ritual offerings at the sites or take certain objects as souvenirs, hoping that they will retain spiritual energy. New Age practices often borrow ideas from the local culture and turn them into commercial gain, thus resulting in a conflict.

The existing literature related to the vortex has focused on New Age followers. Though New Age is related closely to vortex energy and information about New Age tourism could closely reflect vortex tourism, there is a need to specifically study vortex tourism as a whole that might include New Age non-followers. Current literature lacks an evidence-based profile of vortex visitors and vortex businesses. Moreover, past research is limited to secondary data or interviews with tourists. No study has used a large, randomly selected sample using surveys.

Tourism, as the largest single sector of the world, could contribute substantially to sustainable development from local to global scales (Hunter, 1997); hence requiring the industry to be sustainable itself. The UNWTO (2005) defined sustainable tourism as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities.” In pursuit of sustainability goals, businesses, governmental and tourism organizations launch initiatives and educational programs to steer tourists’ behaviors to minimize negative impacts of their travel to the environment and society (Götz et al., 2002; Upham, 2001). Sustainability programs guide tourists toward sustainable consumption since tourists’ choices have different significance for the sustainability of tourism destinations (Budeanu, 2007). Examples of sustainable choices suggested for tourists are ecofriendly local transportation to mitigate air pollution, congestion, noise, and the risk of vehicle accidents; local products to help bring income to local residents and prevent leakage of tourism revenue to foreign or outside investors; and sustainable certified businesses (Budeanu, 2007; Jarvis, Weeden & Simcock, 2010). Visitors are also encouraged to support environmental initiatives such as Leave No Trace initiated by different U.S. land management agencies that encourages visitors to keep the environment clean by leaving no trash behind and doing no harm to the sites; or Dark Sky initiated by International Dark Sky Association that discourages light pollution by turning off the lights in cities (Rodrigues, Rodrigues, & Peroff, 2015; Vagias & Powell, 2010). In addition to tourists’ behaviors and attitudes toward sustainable initiatives, others of their characteristics are important for sustainable tourism development (Dolnicar & Leisch, 2008; Nickerson, Jorgenson & Boley, 2016). Different types of tourists create different impacts on destinations (Lundie et al., 2007). Therefore, destinations that prioritize sustainability are selecting tourists based on segmentation that categorizes tourists into sustainable tourists and less-sustainable tourists based on their demographics, motives to visit a destination, and trip characteristics (Blamey & Braithwaite, 1997; Nyaupane, White & Budruk, 2006). Sustainable tourists are those that carry lower environmental footprints and create higher economic and social values (Lundie et al., 2007; Nickerson, Jorgenson & Boley, 2016). Some scholars and destination developers recommend targeting tourists who stay longer at a destination rather than day-trippers (Becken & Simmons, 2008). This type of visitor could lead to more local spending. Additionally, a longer stay could result in less greenhouse gas emissions since travel is spread across the length of a trip. Other suggested segments are repeat visitors and environmentally oriented tourists (Inskeep, 1991).

Residents are major actors in the tourism development process since they take part in providing services for tourists, create attractions, and are directly affected by tourism (Ap, 1990; Gunn, 1994; Murphy, 1985). Murphy (1985) argued that the good will and cooperation of host communities is vital for tourism development. As tourism grows, the residents in many

destinations may not automatically accept all (or any) forms of tourism development imposed by the industry in the locality (Gunn, 1994). Recent cases of residents launching campaigns against tourism because of heavy visitation that is severely deteriorating quality of life is evident in popular destinations such as Venice and Barcelona (Seraphin, Sheeran & Pilato, 2018). Consequently, assessing resident attitudes toward tourism is necessary for sustainable development and management. Many studies focus on residents' attitudes toward impacts of tourism (Brougham & Butler, 1981; Gilbert & Clark, 1997; Lankford, 1994). Andereck and Vogt (2000) suggested both researchers and destination managers examine residents' attitude about different types of tourism products specifically considering level of acceptance of various forms of tourism development. Findings from resident studies can help destination managers to promote and manage suitable products that satisfy visitors' and residents' needs and desires.

Authenticity plays an important role in sustainable tourism development (Cohen, 2002). Authenticity refers to different meanings: (1) tourism products or services created by local people according to custom or tradition, (2) the sense of the genuine, the real or the uniqueness of products or services, and (3) a potential existential state of "being" that is to be activated by tourist activities; at this stage, people feel they are themselves, much more authentic and more freely self-expressed than in everyday life (Cohen, 2002; Wang, 1999). Therefore, authenticity advocates local culture and lifestyle, as well as visitors seeking meaningful tourism activities. Concerns that tourism leads to commoditization of authenticity for economic gains exist (Greenwood, 1977). "Staged authenticity" has been considered to be a by-product of the commodification process (Cohen, 2002; Wang, 1999).

This study approached the phenomena of vortex tourism with survey methods and probabilistic sampling methods to provide a more in-depth profile and understanding of this tourism subsector that has been lacking in the literature. Additionally, this study examines the sector as a component of sustainable tourism from three viewpoints: (1) vortex visitors' attitudes toward sustainable consumption and initiatives in tourism, (2) residents' attitudes toward the development of vortex tourism, and (3) the authenticity of vortex energy, as well as vortex tourism, from the public's perspective. The research questions of the study are:

- Question 1:** What are the size and characteristics of vortex tourism businesses (in the studied destination)?
- Question 2:** What is the size and characteristics of the vortex visitor market? How are they different from non-vortex visitors?
- Question 3:** How do vortex visitors' attitudes align with sustainable tourism principles?
- Question 4:** What is the acceptance level of local residents toward vortex tourism?
- Question 5:** What are public opinions regarding the authenticity of vortex energy and vortex tourism?

### **Research Site and Methods**

To study spiritual tourism featuring vortex energy, a destination in the Southwest U.S. was considered a suitable place to examine the research questions. The place is considered a popular tourism destination in the U.S. that attracts approximately three million visitors each year, including domestic and international. Some of its features include unique red rock landscapes, several state parks, and more than 300 miles of hiking trails. It is also well known for Native American heritages sites. Different Native American groups inhabited the area from 500 AD until recent centuries leaving behind historic ruins that have become an important part of the tourism attraction (Dream Sedona, 2011). Since the 1970s, together with the popularization of the New Age movement, many spiritual experts and believers think this location possesses the sacred

energy of the vortex (Coats, 2009). The general belief is that there are several vortex sites at the destination, however some consider the entire area as a vortex (Andres, 2007). Page Bryant, a psychic, was credited to be the first person to identify specific locations of powerful energy centers in the area. She called these centers “vortexes” and made the concept popular (Ivakhiv, 2001). Bryant’s proclamations arrived just as the New Age movement was gathering momentum. These events led to thousands of people moving to the area to be close to the energy centers or people visiting as a pilgrim destination, thus forming the market for spiritual vortex tourism. The New Age movement also brought international tourists to the region through its global network (Coats, 2011). Since then, different local actors such as the Chamber of Commerce and Tourism Bureau, local businesses, tour guides, and spiritual practitioners have advocated for the vortexes. Vortexes appear in marketing strategies of local businesses and government offices, including maps of vortex sites. During the 1990s, the vortexes gained great attention from media and were highlighted by leading newspapers in the U.S., making the destination a mainstream spiritual site for pilgrims (Coats, 2011). Currently, there are numerous activities at the vortex sites, such as yoga and meditation; course offerings for advanced mind and body vitalization; vortex workshops or simply visiting the vortex sites.

This study employed a mixed methods approach to explore different aspects of vortex tourism. According to Creswell (2013), a mixed methods approach involves collecting, analyzing, and integrating quantitative and qualitative data within the same study. The combination of the two types of data provides a better understanding of a research topic. One popular way to conduct a mixed methods approach is using a sequential explanatory design. Accordingly, researchers first collected and analyzed quantitative data and based on the results, then designed the subsequent qualitative phase. The qualitative phase can help to explain unexpected results from the quantitative phase.

A delimitation of the research was correctly identifying those who visited for the vortex energy. As the literature review revealed, there are many classifications of spiritual and New Age activities that could be related to the vortex energy (Coats, 2009). It is reasonable to assume that spiritual, New Age, and vortex tourism overlap in the destination studied. To create a vortex visitor segment, two variables were used to validate (or triangulate) that both the interest in and actual visiting of vortex sites occurred during a visit to the destination. To be considered a vortex visitor, respondents to the visitor survey had to select either “vortex visit or tour,” or “spiritual, metaphysical activities” as a leisure activity that they did or were likely to participate in during their visit. Additionally, respondents had to indicate that they actually visited “vortex sites.” All other respondents were considered “non-vortex” or general visitors.

The first phase of this study used an online business survey, an on-site visitor survey, and a mail-back resident survey. The different modes of conducting surveys were because of the availability of sampling lists and the best ways to reach each of the populations. An incentive was used for each of the surveys where one or two people were selected in each sample to receive a restaurant gift card. Participants in all surveys were 18 years old or older which was confirmed using screening and reported age in the dataset. Data analysis was conducted using SPSS and consisted of descriptive statistics and tests of association such as Chi-square and independent-samples t-test. Where Chi-square and independent-samples t-test were applied, a P value that was less than .05 showed a significant difference between compared groups (Moore & Kirkland, 2007).

The business survey was administered on Qualtrics software during June and July 2018. Invitations were sent to representatives of 676 local businesses that are members of the local Chamber of Commerce & Tourism Bureau. The list included tourism and non-tourism businesses.

The online survey asked about the volume of business, year of operation, number of employees, and how businesses were related to the tourism industry.

The visitor survey was conducted from January to July of 2018 at six sites including: a church, a shopping mall, an up-town business district, a state park, and two trailheads. Surveys were conducted twice per month at each site, each time for six hours. The dates of surveying varied between weekdays and weekends. Sampling was random selection; the surveyors invited one participant every 10 minutes. For tourists travelling in groups, only one participant was invited to complete the survey. The survey targeted both vortex visitors and non-vortex visitors. Vortex visitors were those who indicated they participated in spiritual and metaphysical activities, took a vortex tour, or visited a vortex site. General visitors were those who did not participate in any of these activities. Demographics (age, gender, etc.) and trip characteristics (group size, trip length, etc.) were also measured. Visitors' opinions about sustainable initiatives in destinations were measured by asking the respondent to rank seven initiatives that they look for on vacation based on a scale from 1 equals "not important" to 5 equals "very important."

The resident mail survey was administered from March to July of 2018 to 1,000 randomly selected households from a tax list. Households selected were approximately 20% of the owner-occupied units. One primary adult in each household was asked to complete the questionnaire. In this survey, residents were asked about their level of support for different types of tourism products and facilities in the destination that included spiritual and vortex activities. The scale for residents to express the level of support ranged from 1 that equals "not acceptable" to 5 equals "very acceptable."

A qualitative approach using social media was applied in the second phase during January 2019 to examine public opinions about vortex tourism. Comments to posts on TripAdvisor and Reddit webpages, as well as to videos on YouTube, were collected using key words "vortex in [the area]", and "vortex tourists/visitors in [the area]." This qualitative approach was added after the residents' survey results showed a lower level of support for vortex tourism compared to other types of tourism, thus following a mixed methods explanatory approach (Creswell, 2013). Social media analysis was selected as a method to gain a deeper understanding of public opinions for what might be the reason(s) for lower support from residents through their narrative explanations. The collecting and theming of comments were conducted applying saturation basis in qualitative research. Saturation is reached when data become redundant with no new information or themes being revealed by further data collection; hence the researcher could claim that they have enough data to achieve research purpose (Charmaz, 2006; Faulkner & Trotter, 2017). The social media data in this study reached saturation after 125 comments were selected and analyzed. The comments were posted during the recent years from 2012 to 2018.

### **Data Analysis and Results**

The business survey generated 222 responses (response rate of 36%) from a wide range of businesses. Results from the business survey addressed the study's research question 1 that focused on the size and characteristics of vortex tourism businesses in the studied destination. The businesses that operate primarily as spiritual services accounted for 12% (n = 26) of the respondents. Spiritual businesses were among the most popular business forms, together with retail businesses (13%) and accommodation businesses (12%) (Table 1). These businesses averaged 12.3 years of operating; with 36% of the spiritual businesses operating from 20 to 36 years, thus suggesting the longevity of vortex tourism. Most businesses employed less than ten employees, including owners. Over half of the spiritual businesses considered themselves as tourism businesses (65%) and almost all of them indicated that they benefit from tourism (96%).

**Table 1.** Profile of spiritual businesses (n = 26)

Length of business operations	Number of employees	Tourism orientation	Benefit from tourism
Mean: 12.3 years	< 10 employees	Yes: 65%	Yes: 96%
Range: 1 to 38 years	(including owners):	No: 35%	No: 4%
Below 20 years: 64%	96%	Total: 100%	Total: 100%
20 years and above: 36%	> 10 employees: 4%		
Total: 100%	Total: 100%		

The visitor survey yielded 1,001 respondents. Vortex visitors accounted for 143 respondents (14%). General (non-vortex) tourists, those who did not clearly come to the destination for the vortex energy or actually visit vortex sites, accounted for 410 respondents (41%). Another 448 respondents (45%) could not be accurately categorized as either vortex or general tourists due to insufficient answers on the two questions used to classify and validate the two groups. Based on these segment sizes, approximately 420,000, out of 3 million annual visitors (as estimated by the Chamber of Commerce & Tourism Bureau), are vortex visitors. Vortex visitors and general visitors were a focal point of this research. Results from the visitor survey addressed the study's research question 2 that focused on the size and characteristics of the vortex visitor market, and differences between vortex and general visitors.

Chi-square tests were used to measure the association between vortex visitors and general visitors on gender ( $p = .006$ ), residency ( $p = .000$ ), length of trip ( $p = .000$ ), and accommodations ( $p = .167$ ) (**Table 2**). Results showed that vortex visitors were mostly female (64%), come from out-of-state (74%), and tended to stay overnight (86%) in comparison to general visitors. Vortex visitors were not statistically different from general visitors in overnight accommodations choice.

**Table 2.** Comparison of vortex and general visitors on demographics and trip characteristics using Chi-square tests (categorical variables)

Demographics and trip characteristics	Vortex visitors (n = 143)/ %	General visitors (n = 410)/ %	p
<b>Gender</b>			
Male	36	49	.006
Female	64	51	
<b>Total</b>	100	100	
<b>Residency</b>			
In-state	18	36	.000
Out-state	74	55	
International	8	9	
<b>Total</b>	100	100	
<b>Daytrip/Overnight trip</b>			
Day trip	14	45	.000
Overnight	86	55	
<b>Total</b>	100	100	

<b>Accommodation (for overnight visitors)</b>				
Timeshare	12	10		
Resort	23	16		
Full-service hotel	18	23		
Limited-service hotel/motel	7	10		
Bed & Breakfast	8	8		.167
Campground or RV park	7	13		
Rented vacation home (e.g. Airbnb, HomeAway, VRBO)	20	12		
Staying with friends or relatives	5	8		
<b>Total</b>	<b>100</b>	<b>100</b>		

Independent samples t-tests were employed to identify the relationship between vortex visitors and general tourists on additional demographics and trip characteristics. Age ( $p = .210$ ) and party size ( $p = .889$ ) were similar for vortex and general tourists (Table 3). For both groups, the average age was about 46 years old. Baby Boomers were the largest segment of visitors (36% for vortex visitors and 28% for general tourists). The average party size of both groups was 3.5 people per party, mostly comprised of family and friends. Trip length was found to be significantly different for the two visitor segments ( $p = .014$ ). Vortex visitors stayed longer, with an average trip length of 4 nights, in comparison to 3 nights for general tourists. Number of visits significantly differed for the two visitor segments ( $p = .009$ ). Vortex visitors visited the destination more times ( $M = 5.19$ ) than general visitors ( $M = 3.68$ ). Vortex visitors rated satisfaction of the tourism destination differently than general tourists ( $p = .000$ ). Vortex visitors rated the destination slightly higher ( $M = 4.67$ ) compared to general tourists ( $M = 4.46$ ).

**Table 3.** Comparison of vortex and general visitors on demographics and trip characteristics using independent samples t-tests (ratio/interval data variables)

<b>Demographics and trip characteristics</b>	<b>Vortex visitors (n = 143)/ Mean</b>	<b>General visitors (n = 410)/ Mean</b>	<b>t</b>	<b>p</b>
Age (years old)	46.5	46.3	.153	.210
Satisfaction with destination (scale: 1=poor to 5=excellent)	4.67	4.46	3.930	.000
Number of visits	5.19	3.68	6.849	.009
Trip length (days)	4.09	3.00	2.471	.014
Party size (persons)	3.52	3.57	-.139	.889

Vortex visitors participated in vortex activities, whereas general tourists did not. Other popular activities for both groups included hiking, sightseeing, shopping, and dining with participation levels ranging from 68% to 86% (Table 4). The next most popular activities were picnicking, land touring, and visiting galleries and museums with participation levels ranging from 18% to 32% of the respondents. The least popular activities were biking, golfing, camping, and attending special events with participation levels ranging from 2% to 8%. Chi-square tests showed some associations of activities and visitor groups. Vortex visitors (in comparison to general visitors) were more likely to hike ( $p = .000$ , 86% vs. 68%), receive spa treatments ( $p = .000$ , 15% vs. 6%), sightsee ( $p = .006$ , 80% vs. 69%), picnic ( $p = .010$ , 28% vs. 18%), visit galleries and museums ( $p = .026$ , 32% vs. 23%), and shop ( $p = .036$ , 77% vs. 68%).



**Table 4.** Comparison of vortex and general visitors on trip activities using Chi-square tests (Multiple choices were allowed)

<b>Trip activities</b>	<b>Vortex visitors (n = 143)/ %</b>	<b>General visitors (n = 410)/ %</b>	<b>p</b>
Hiking	86	68	.000
Spa treatment	15	6	.000
Sightseeing	80	69	.006
Picnicking	28	18	.010
Visiting galleries, museums	32	23	.026
Shopping	77	68	.036
Land touring (e.g. jeep, ATV, horseback)	27	20	.054
Dining	72	66	.204
Camping	6	8	.548
Special occasion (e.g. wedding, reunion)	4	5	.736
Special event (e.g. festival, concert)	3	2	.818
Biking	4	4	.918

The visitor survey also addressed the study’s research question 3 that explored how vortex visitors’ attitudes aligned with sustainable tourism principles. Association between visitor segments and the importance for sustainability initiatives by destinations were found on six of seven initiatives (**Table 5**). Those initiatives includes environmental practices at businesses, Leave no Trace principles in parks, localized economies, tours or attractions that do not put stress on the surrounding environment, business sustainability certification, and environmentally friendly transportation (p-level ranged from .000 to .039). Vortex visitors placed more importance (means vary from 3.69 to 4.49) on these initiatives compared to general visitors (means vary from 3.45 to 4.19). The importance of Dark Sky recognition was similar for the visitor segments (p = .069).

**Table 5.** Comparison of vortex and general visitors on sustainability initiatives using independent samples t-tests (ratio/interval data variables)

<b>Sustainability initiatives</b>	<b>Vortex visitors (n = 143)/ Mean</b>	<b>General visitors (n = 410) /Mean</b>	<b>t</b>	<b>p</b>
Businesses that implement environmental practices	4.18	3.78	3.768	.000
Parks that promote the “Leave no Trace” principles	4.49	4.19	3.076	.002
Businesses where spending is retained locally	3.93	3.56	3.187	.002
Locally owned and operated tours or attractions that do not put stress on the surrounding environment	4.27	4.04	2.409	.016
Businesses that have a sustainability certification	3.69	3.45	2.121	.034

Low impact transportation options such as public transportation, bike share or pedestrian walkways	3.87	3.65	2.073	.039
Communities recognized by the International Dark Sky Association	3.56	3.30	1.830	.069

*Scale of 1-5 from 1=not important to 5=very important*

The resident mail survey had 376 homeowner respondents (38% response rates). Results from the resident survey addressed the study’s research question 4 that examined the acceptance of local residents toward vortex tourism. Respondents were asked to rate their acceptability level to expand interest and demand for 18 tourism experiences or services in the destination. They rated the acceptability of spiritual/metaphysical activities and facilities, which includes vortices, lower than many other activities such as visiting national parks, festivals and events, and shopping (Table 6).

**Table 6.** Residents’ acceptance of expanded interest and demand for tourism experiences or services

<b>Expanded interest &amp; demand for:</b>	<b>Mean</b>
State/National Parks & Heritage Sites	4.3
Trails-nonmotorized	4.2
Archeological sites	4.0
Outdoor recreation opportunities	4.0
Public transportation	4.0
Museums/Galleries	3.9
Festivals/events	3.8
Wineries/craft brewers	3.7
Entertainment (theaters, music, etc.)	3.7
Scenic drives	3.6
Retail stores/Shopping	3.5
Tour services	3.2
Bed and Breakfasts/ Inns	3.1
Spiritual/metaphysical/vortex activities	3.1
Resorts	2.9
Hotels/Motels	2.8
Airbnb	2.4
Trails-motorized	2.2

*Scale of 1-5 from 1=not acceptable to 5=very acceptable*

Public comments on social media channels for the destination (TripAdvisor, Youtube, and Reddit) about the vortex energy and vortex tourism were examined. Social media analysis was conducted to answer the study’s research question 5 that asked what public opinions were regarding the authenticity of the vortex energy and vortex tourism. Following the quantitative research approaches of surveys, a qualitative research approach allowed for narrative expression to interpret quantitative findings. From 125 public entries, 66 comments held content about level of support for or beliefs about the vortex energy and vortex tourism. These comments showed that public opinion was mixed. The commenters were different types of people, including residents, tourists, and the general public. A number of individuals considered the vortex energy as a hoax and opposed the related businesses. Quotes from the social media posts that support this claim include:

“Folks, vortices in [the area] were allegedly made up by an individual seeking to charm your money away years ago.”

“The vortices themselves are truly a hoax, but people will believe what they want to believe regardless of the truth. And in [the area], there's always someone who

will take your money and reinforce false beliefs.”

Some commenters showed concern about the people who took part in vortex activities. Quotes from the social media posts reveal concern:

“There may be ungrounded woo-woo people ... who often appear disconnected from reality.”

Some commenters said tourists were renewed simply because of the beautiful natural setting, outdoor activities, and fresh air; not because of any mysterious energy sources:

“I must say that [the area] is a very healing place in general. You don't need to go to any vortex. The beauty and exotic formations inspire such deep feelings and inspiration one can understand why people have come here to rejuvenate physically and spiritually.”

Opinions that supported vortex activities and respected other people's beliefs are reflected in these quotes:

“I personally would not go on a vortex tour but would never stand in the way of someone who does. Everyone is different, and people face difficult decisions and look for guidance in spiritual things like vortexes. People come to [the area] for different reasons, which is why there is a variety of services offered.”

Some people even shared their own experiences with vortex energy. Quotes included:

“My own experience of [the area] started back in 2004 with vortex tours and ceremonies I took part in here on this beautiful land. As a matter of fact, it had such a profound influence on my life that I eventually moved here and it is a truly sacred place for me.”

“Did I feel something at the vortex sites? Yes. I felt a warm energetic soothing sensation from my feet flow to my feet to the top of my head. Would I have felt it without someone telling me about it? I don't know. Did it change my being? Yes.”

For those who believe in the vortex energy, on social media sites they discussed whether visitors should take vortex tours with local businesses, can the vortex energy be explored without a tour guide, or to make recommendations of a good travel agent or places where the vortex energy can be found.

### **Discussion and Conclusion**

Social science research on vortex tourism is lacking despite the attraction of vortex energy being a unique and rare phenomenon. Vortex tourists are a segment within a larger tourism market. This research aimed to estimate the size of vortex tourism at a vortex destination in the southwest U.S. Findings from a business survey and a visitor survey suggest that vortex and spiritual tourism is one of the top business forms in the destination (at least 12% of local businesses provide related services) and a sizable portion of tourist volume (around 14%). Vortex businesses have operated in the destination for nearly 40 years. Almost all of the vortex businesses are related to and benefit from tourism. Hence, the vortex/spiritual business operations and the arrivals of vortex visitors play an important role in the local economic, social, and culture fabric of the community. Importantly, this study is the first to examine and provide empirical data on the vortex tourism system of businesses, visitors, residents, and the public, and can be used as a reference for future study and to guide community development, management, and marketing.

Findings from the visitor survey also suggested that vortex visitors were similar to general visitors in specific ways. Some of their similarities are the common visitor characteristics such as being middle-aged, with Baby Boomers as the largest segment. The patterns of activities within

each group are similar, except for vortex related activities. This could be explained by the availability of tourism services that encourage some activities more than others such as hiking and shopping, rather than biking and walking. Vortex visitors are also different from general visitors in several ways such as gender, length of stay, and visitation history. Our findings show vortex visitors are more likely to be female, which is a finding supported in religious literature. Women are more religious, spiritually oriented, and more superstitious than men (Argyle & Beit-Hallahmi, 2014; Trzebiatowska & Bruce, 2012; Walter & Davie, 1998). Women tend to pray, worship, and claim faith more than men; and they dominate the New Age world (Trzebiatowska & Bruce, 2012). Women have a tendency to seek spiritual support because they are more vulnerable than men due to historical low status in society; they are also more afflicted than men by poverty, illness, old age and violence. Additionally, their responsibility to give birth makes them sensitive to the ideas of life, death and the universe (Trzebiatowska & Bruce, 2012). Another difference between vortex visitors and other visitors is vortex tourists are more likely to stay overnight and stay longer at the destination than the general visitors. A possible explanation is that many spiritual experiences take time and are offered as three-day retreat packages or four-day tours to experience different vortex sites. The findings also showed that vortex visitors, besides participating in vortex activities, experience other tourism activities which keep them in the area longer. This finding may align with Ivakhiv's(2003) research that genuine spiritual tourists stay longer to accomplish their spiritual journey and goals. A final explanation for vortex stays being longer than general tourists is that the vortex energy sites are rare and visitors travel farther from home to reach these places that they may visit just once in a lifetime.

Successful tourism development can depend on support from residents (Murphy, 1985). The findings from this research suggest that vortex tourism is moderately accepted by local residents in the destination studied. Some residents expressed that they preferred other tourism activities more than those associated with the vortex energy. A lower support from local residents could be a challenge for developing vortex tourism further. One of the reasons for lower support from residents might be because many doubt the existence of vortex energy. Hence, the authenticity of vortexes is questionable. The general public's opinions about vortex tourism, as shown in the content gathered from social media posts, fluctuated between support for and disapproval or disbelief. It is important for destination managers to address residents' and the general public's attitudes toward the vortex energy and vortex tourism to ensure this tourism segment does not become annoying to residents and the general public (Andereck & Vogt, 2000; Byrd, 2007; Woo, Kim & Uysal, 2015).

Another aim of this research was to evaluate how vortex tourism aligns with sustainable tourism strategies. Tourism researchers suggest that destinations could be more effective using segmentation to evaluate visitor segments' alignment with sustainability, and apply a targeted approach to each segment of visitors (Dolnicar & Leisch, 2008; Nickerson, Jorgenson & Boley, 2016). Based on our findings, vortex visitors appear to be sustainable visitors in a couple of ways that the literature espouses (Becken & Simmons, 2008; Inskip, 1991). First, vortex visitors' attitudes align closely with sustainable tourism principles. They considered sustainable initiatives such as environmental protection and promotion of local business to be more important than general visitors. These attitudes might be closely aligned with New Age ideology of living in harmony with the nature, the universe and with other people. Second, vortex visitors stay longer and have more multiple visits than general visitors, both features that potentially can generate more spending and less of a carbon footprint.

Besides these positive alignments of vortex visitors to sustainable tourism practices, some behaviors, that is spiritual practices related to vortex visitation, have caused negative impacts on

environment and local culture (Timothy & Conover, 2006). Findings from social media content suggest some level of negative impacts are occurring in the destination that are being attributed to vortex visitors. To mitigate negative impacts, the vortex sector may need to be further regulated. Another solution is educating the vortex visitors and modeling appropriate behaviors that can lead to higher sustainability levels.

Pragmatic contributions of this vortex tourism research are to apply the findings to management and marketing strategies. First, marketing strategies could be further targeted to female visitors, since women are the dominant segment that visits vortex sites. A second strategy could be to encourage and incentivize longer stays to provide greater economic benefit through overnight stays. Support for these two strategies is the higher satisfaction levels by vortex visitors and loyal consumers (positive attitudes, repeat visitation).

This study on vortex visitors contributes to the literature in terms of methodology and theme development. This is the first study to investigate this visitor market using survey methods combined with content analysis from social media. It is also the first study to examine this market segment as a component of a sustainable tourism management approach. Finally, this research incorporates four distinct stakeholders' perceptions. Further research can extend our knowledge on vortex tourism (businesses, visitors, residents, social media users). Suggested topics include examining the social and economic impact of vortex visitors and modeling management strategies for vortex activities and visitor behaviors. Vortex visitors are also ripe to delve into religious or spiritual beliefs and how they are impacted by travel experiences. While our study used surveys, random sampling, and content analysis of social media, future research could apply qualitative approaches for a deeper examination of residents' perspectives about vortex tourism using interviews. Our research studied one world renowned location believed to possess the vortex energy. Each vortex site is believed to possess different energies attributed to different planetary dynamics and sites reside in various global places with unique cultures. Research at other vortex places around the world will provide more in insight into the phenomenon of traveling to and experience the vortex energy.

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**WHICH WAY NOW? COMPARISON OF MARINE CODES OF CONDUCT FOR  
SUSTAINABLE MARINE WILDLIFE TOURISM IN WEST WALES**

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**Abstract:** As a specific area of niche tourism, sustainable marine wildlife tourism has experienced dramatic growth in recent years. This has resulted in a plethora of academic and non-academic literature, exploring and reinforcing good practice. However, little consideration has been given to whether current advice given to those involved in the industry is consistent. The seas around West Wales support an incredibly rich and diverse range of marine species, most notably dolphins, seals and whales. Although a number of voluntary marine codes exist for local boat operators, it is unclear whether these correlate with advice given to operators further afield. Recognising that consistent standards are vital when dealing with migratory species, this paper explores, via a thematic analysis, differences in current marine wildlife tourism codes of conduct between Wales and other countries located along the migratory routes of Minke, Orca and Fin Whales. Results show a proliferation of codes, which has resulted in significant levels of contradiction. This paper will make recommendations about what might improve existing local, national and international codes of conduct for marine wildlife tour operators and critique issues associated with those recommendations.

**Keywords:** Marine wildlife tourism, niche tourism, codes of conduct, West Wales

## **1. Introduction**

Marine wildlife tourism, primarily involving whale watching has experienced rapid growth in recent years. It can be considered niche tourism due to its reliance on limited and threatened resources. In 2008, the global marine wildlife industry generated approximately \$2 billion in revenue and supported 13,000 jobs worldwide (MMC, 2019). In the same year, 13 million tourists participated in marine wildlife activities across 119 countries and 3,300 operators offered marine wildlife trips. In 2008, global ticket sales for marine wildlife trips generated \$870 million (direct expenditure), with subsequent indirect expenditure generating \$1.2 billion, resulting in total marine wildlife viewing expenditure of \$2.1 billion (IFAW, 2009).

The aim of this paper is to explore the differences in marine wildlife tourism between Wales and other countries on the migratory routes of Minke, Orca and Fin Whales, which are the larger species, found off the coast of West Wales and so are of particular interest to local commercial boat operators. The authors will review 22 marine codes of conduct, which relate to operators working specifically along these migratory routes. The guidance also relates to other marine species such as dolphins and seals which are found in the area but which do not migrate. It is therefore important to consider the range of guidance across the entire migratory routes of species, because it is assumed that a consistent approach is more effective in terms of influencing species behaviour and consequential species survival.

## **2. Literature Review**

The International Whaling Commission, the recognized intergovernmental authority on the management of whales as a resource, defines whale watching as “any commercial enterprise which provides for the public to see cetaceans in their natural habitat” (IWC, 1994). However, for the purposes of this study, the authors need to point out that whale watching does not include tourism activities where animals are captive in pools or sea pens.

The most recent study into the global economic value of the marine wildlife tourism sector (Cisneros-Montemayor et al, 2010) suggests that an additional \$413 million and 5,700 global jobs could be generated by expansion of the sector into new geographical regions. Expansion could generate revenues in excess of \$2.5 billion a year, supporting 19,000 global jobs. These global trends are reflected at local level. Tourism, and in particular coastal tourism, which includes whale watching, is extremely important in Wales. According to the latest report published by Visit Britain (Visit Britain, 2019), 9.02 million people visited Wales, 3.7 million (41%) of whom visited the coast. £719 million was spent at coastal destinations, 44% of total tourism expenditure in Wales. Average spend was £180 per trip, an increase of 0.6% on the previous year. Although these figures are generally positive, the total number of tourists decreased slightly on the previous year, a decline of 3%.

At local level, for example, in St David's, West Wales, where the population is around just 1,500 residents (Stdavids.gov.uk, 2019) there are 5 marine wildlife boat operators (Tripadvisor.co.uk, 2019), offering trips from 1 hour to all day. A typical 2.5-hour trip around Ramsey Island would cost around £60 (\$78) for an adult and £30 (\$39) for a child (Ramseyisland.co.uk, 2019). Whale watching is the lifeblood of this local community. However, as noted by Inman (2016), whale watching is not licenced in the UK and information about the industry is difficult to obtain. The closest comparison for West Wales comes from a 2015 study based on the West of Scotland (Ryan, 2018). In the study, 22 marine wildlife companies supported 51,200 tourists. £2.3 million of direct revenue was generated directly and £3.7 million indirectly. The activities supported 72 full-time equivalent jobs.

According to Trave et al (2017), sustainability within marine wildlife tourism does not result in chronic or irreversible detrimental changes. Indeed, Trave et al (2017) argue that this form of tourism can produce economic and social benefits. However, other authors have identified negative environmental impacts, particularly for the marine species being viewed. A number of studies have shown that cetaceans exhibit feeding and resting behavioural changes in response to marine traffic (Marino, 2012). These are survival activities which can, if affected, reduce reproduction rates, population sizes and wider ecosystem functioning. In addition, there is substantial evidence to demonstrate physical injury and mortality caused by vessel collisions (New, 2015).

Currently it is still unclear whether wildlife tourism is truly succeeding in achieving its conservation objectives (Trave et al, 2017). Although national and international legislation exists across most of the globe to protect marine species, it is often very generic and does not respond rapidly enough to changing local pressures. Issues have also been highlighted, regarding costs associated with compliance (Greiner et al, 2000) and the important role of self-regulation (Gjerdalen and Williams, 2000; Inman et al, 2016). Consequently, codes of conduct have emerged to provide flexible, low-cost, self-regulated, effective responses to marine wildlife tourism risks (Parsons, 2012). These operate at global, regional, national and local level (WCA, 2019; Inman, 2016). Although research has previously been undertaken into UK Codes of Conduct (Garrod, 2014), it has been 15 years since the last review. Things have changed in that time, particularly around West Wales, which is the focus of this study.

### **3.Methodology**

The authors relied on secondary data sources to provide a comparison of marine codes of conduct for sustainable marine wildlife tourism in West Wales. Firstly, data from three large scale surveys for cetaceans using both aerial and boat-based techniques (Breen, 2016) was used to identify migratory routes of the three cetacean species being considered. These were the Small Cetacean Abundance in the North Sea and Adjacent Waters (SCANS) I and II surveys, carried out in 1994 and 2005 respectively (Hammond et al., 2002 and Hammond et al., 2013)

and the Cetaceans Offshore Distribution and Abundance in the European Atlantic, carried out in 2007 (CODA, 2007 and Hammond et al., 2007). This approach was also used to identify countries located along the migration routes of species concerned. Results from these and subsequent surveys is reported to the EEC via the UK Marine Mammal Research Unit, the Sea Watch Foundation and the JNCC (Joint Nature Conservancy Council). The JNCC provides the most up to date and comprehensive reports via its European Economic Community reporting which is updated every six years. The most recent report was published in 2013 (JNCC, 2013). This will be the main reference source for population numbers and migratory routes, although the authors have supplemented this, where required, by additional data sources.

Secondly, desk research was undertaken using search terms “marine code”, “marine code of conduct”, “whale-watch code of conduct”, “whale watch code”, “whale watch guidelines”, “marine wildlife guidelines” and “marine wildlife code” in order to identify existing marine codes of conduct. Thematic analysis was then used to identify, categorise and cross-tabulate the 37 most frequently occurring recommendations, as drawn from the literature. With specific regards to tourism research, Hannam and Knox (2005) recognise the value of thematic analysis. In addition, and as noted by Walters (2016), its’ most frequent application in tourism research concerns the interpretation of written documents.

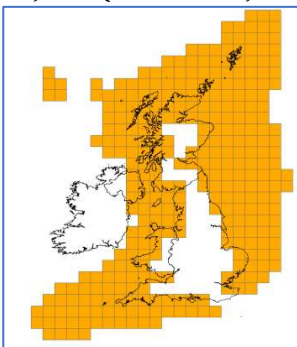
Thirdly, and mainly due to the early stage nature of the research, the authors employed a basic quantitative thematic mode analysis via a Microsoft Excel spreadsheet. Results are presented in the next section.

## 4. Results

### 4.1 Migratory Routes of Minke, Orca and Fin Whales

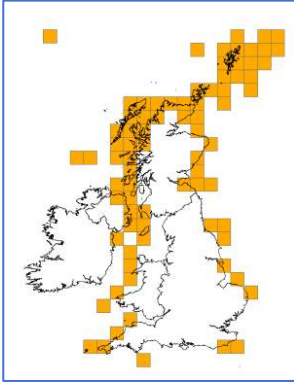
#### 4.1.1 Minke Whales (*Balaenoptera acutorostrata*)

Minke whales are seasonally abundant in the North Atlantic Ocean. They are the most commonly found baleen whales to transit British waters. In winter, they migrate southwards to breed and in summer, migrate northward to the coast of Norway (WWF, 2019). As far as is known, the species transiting off the coast of West Wales migrates between the Barents Sea and the African continental shelf (Risch, 2014). The population is estimated to be around 18,958 (Hammond, 2013 in JNCC, 2013).



**Figure 1:** Distribution of Minke Whales around UK Waters. (Source: JNCC (1), 2013).

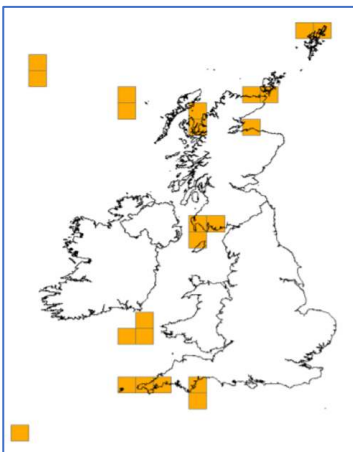
#### 4.1.2 Orca (*Orcinus Orca*)



**Figure 2:** Distribution of Orcas Around the UK (Source: JNCC (2) 2013).

*Orcinus Orca*/ Killer Whales are found in UK waters throughout the year and come closer to shore between April and October. Group sizes in the UK are typically 6-8, although larger groups have been observed. Populations in the wider Northeast Atlantic are unknown, although there are regional estimates (Forney, 2007). The most recent estimate for the North Atlantic Sightings Surveys area in 2001 was 15,014 individuals (Hammond et al. 2013 in JNCC (2), 2013). Orca whales in UK waters are part of the wider North Atlantic population with known movements of individuals between the UK, Iceland and Norway (Foote, 2011).

#### 4.1.3 Fin Whale (*Balaenoptera Physalus*)



**Figure 2.** Distribution of Fin Whales in UK Waters (Source JNCC (3), 2013).

Fin whales are the second largest of the baleen whales (Reid, 2003). They can grow to around 20m long and can blow water up to 6m high in the air. They tend to swim alone or in pairs in deep water. For management purposes, UK Fin whales are grouped into the British Isles-Spain-Portugal stock by the International Whaling Commission. This is one of seven stocks. The Cetacean Offshore Distribution and Abundance survey (Hammond, 2007) identified 13,966 Fin whales between the Shetland Channel and the Bay of Biscay in July 2007.

From the analysis of migratory routes of Minke, Orca and Fin Whales, it can be concluded that codes of conduct from Norway, Denmark, Netherlands, Belgium, France, Spain and Portugal (plus England, Scotland, Ireland and Wales) should be considered in this study.

## 4.2 Codes of Conduct

### 4.2.1 Numbers of Codes of Conduct

The following section summarises the results of the review of codes of conduct for marine wildlife boat operators working around Norway, Denmark, Netherlands, Belgium, France, Spain, Portugal, England, Scotland, Ireland and Wales. It is organised according to global, regional, national, and local level guidance.

It is noted that ASCOBANS (Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas) is active but focuses on small cetaceans in the North Atlantic. The UK 2018 Annual report was reviewed, although did not include specific information about codes of conduct (ASCOBANS, 2017).

**Table 1** summarises the relevant global, regional, national and local codes of conduct which were considered as part of the study. Many of the national level codes were originally identified via a 2013 study (IWC, 2013). Others were identified through desk-based research which was undertaken between January and May 2019.

**Table 1.** Relevant Global and Regional Codes of Conduct (n=22)

<b>Global Codes of Conduct</b>
1. World Cetacean Alliance Global Best Practice Guidelines (WCA, 2019)
2. International Whaling Commission (IWC, 1996)
<b>Regional Codes of Conduct</b>
3. Agreement on the Conservation of Cetaceans in the Black Sea, Mediterranean Sea and contiguous Atlantic area (ACCOBAMS, 2016)
4. Association of Arctic Expedition Cruise Operators (AECO, 2017)
<b>National Codes of Conduct</b>
5. Norway National Guidelines for Whale Watching (Nor whale, 2017)
6. French Charter for Responsible Marine Mammal Observation (in French) (Government of France, 2017)
7. Spanish Decree for the Protection of Cetaceans (in Spanish) (Government of Spain, 2008)
8. Spain Canary Islands Whale Watching Regulations (Canaries Government, 2002)
9. Portugal National Guidelines (Government of Portugal, 2006)
10. Iceland National Guidelines (Ice whale, 2015)
<b>National (UK) Codes of Conduct</b>
11. Natural Resources Wales Sea Wise Code (Natural Resources Wales, no date)
12. Natural England and Marine Management Organisation Guidance (Natural England, 2017)
13. Scottish Marine Wildlife Watching Code (Scottish Natural Heritage, 2017)
14. Scottish Wildlife & Adventure Tourism Association Guidance (Scottish Wildlife and Adventure Tourism Association, 2010)
15. Ireland National Guidelines- Marine Notice No 15 of 2005 (Government of Ireland, 2005)
16. Sea Watch Foundation Marine Code of Conduct (Sea Watch Foundation, no date)
17. Whale and Dolphin Conservation (ACCOBAMS, 2008)
18. WISE (WISE, no date)
<b>Local Codes of Conduct within West Wales</b>
19. Pembrokeshire Marine Code (Pembrokeshire Coastal Forum, no date)
20. Ceredigion Marine Code (Ceredigion County Council, 2010)
21. Ceredigion Water Users Marine Code of Conduct (Ceredigion County Council, 2019)
22. Ceredigion County Council- Commercial Passenger Boat Code Prepared for Harbours Operating Within the Cardigan Bay Candidate SAC (Ceredigion County Council, no date)

*\*Note: Denmark, the Netherlands, Belgium do not have national level marine wildlife codes of conduct.*

**Table 1** lists 22 different marine codes of conduct which are relevant to Minke, Orca and Fin whale species migrating along the coast of West Wales. A marine wildlife boat operator in West Wales should ideally adhere to all of these codes, which include 37 different recommendations.

This is obviously impossible, but the point is that the extensive list of codes makes it difficult to know which ones to implement.

The decision about which codes to implement depends on which species are likely to be seen. This in turn, is dependent on which countries are passed during migration. **Table 2** lists the countries along the migratory routes of Minke, Orca and Fin Whales.

**Table 2.** Migratory Routes of Cetacean Species.

	<b>Minke</b>	<b>Orca</b>	<b>Fin</b>
1. Iceland		√	
2. Norway	√	√	
3. Denmark	√	√	
4. Netherlands	√		
5. Scotland	√	√	√
6. England	√	√	√
7. Ireland	√	√	√
8. Wales	√	√	√
9. Belgium	√		
10. France	√		√
11. Spain	√		√
12. Portugal	√		
No. Countries	11	7	6

From this we can see that the Minke Whale species migrates past the greatest number of countries (n=11). This is followed by Orcas (n=7) and Fin whales (n=6). Interestingly, population sizes of the three species reflect a similar pattern. Minke whales have the highest populations, followed by Orcas and then Fin whales. This suggests that Minke whales, which have the largest populations, also are subject to the broadest (and most confusing) range of management measures. In addition to the national level codes listed above, there are a broad range of global, regional and local level measures, which only adds to the complexity.

A detailed analysis of specific recommendations within each code of conduct was undertaken. From this, the researcher was able to identify which recommendations were consistent and which ones were contradictory. The following section summarises the findings.

#### **4.2.2 Frequently Cited Recommendations**

A total of 37 different recommendations were identified from the 22 codes of conduct. In order of frequency, the most commonly cited recommendations related to: direction of approach, group division, chasing, feeding, juvenile avoidance, and swimming with cetaceans. **Table 3** shows the most frequently cited recommendations. This includes all recommendations cited by 10 or more codes of conduct.

**Table 3.** Most Frequently Cited Recommendations

Number of codes recommending the measure (n=22)	Recommendation
17	No person or boat shall cause any cetacean to become separated from a group.
16	No person shall use motorised swimming aids for cetacean watching.
15	If a cetacean shows avoidance behaviour, it must not be pursued.
13	Do not swim with cetaceans.
13	Extra caution needs to be taken by the operator when calves are present.
13	Cetaceans should always be approached from the side and slightly behind, with the boat moving in parallel.
12	No deliberate chasing of cetaceans.
12	No person shall make excessive loud, disturbing or continuous noise.
12	Do not touch cetaceans.
11	Operators should not enter restricted zones or areas protected from boats or swimmers as designated by local, national, or international law, conventions or agreements.
11	Cetaceans always have right of way.
10	If cetaceans bow-ride alongside the boat, the boat should remain at a constant speed with no sudden changes in direction.

In summary, it can be concluded that the most frequently cited consistent recommendations were that cetaceans should not be divided (n=17), that motorized vehicles should not be used (n=16) and that there should be no pursuit (n=15).

#### 4.2.3 Contradictory Recommendations

In contrast, a broad range of guidance was given regarding vessel speeds, minimum approach distances, stay time and maximum number of vessels. **Tables 4, 5, 6 and 7** demonstrate the range of advice given.

**Table 4.** Vessel Distance and Speed

Code of Conduct	Recommendation
Sea Watch UK	1000m, 10 knots
WISE UK	1000m, 6 knots
Portugal	300m, 3 knots
France	300m, 4 knots
Arctic	300m, 5 knots
NRW	300m, 6 knots
SMWWC	300m, 6 knots
Iceland	300m, 8mph (7 knots)
Ceredigion Marine Code	300m, min speed
World Cetacean Alliance	300m, no wake speed
Pembrokeshire Marine Code	within eyesight, 5 knots

*\*Note: other codes either agreed with the World Cetacean Alliance recommendation or did not mention it.*

Recommended vessel distance/ speed ranged greatly. **Table 4** shows how there were ten variations of the advice, which ranged from 10 knots at 1000m to no wake speed at 300m.

**Table 5.** Minimum Approach Distance

Portugal	30m
Arctic	50m
Spain	60m
Canary Islands	60m
WCA	Boats should not approach a whale closer than 100 metres and should not approach a dolphin or porpoise closer than 50 metres.
SWATA	"too close"
Ceredigion	100m dolphins
Cardigan Bay SAC	100m of all marine mammals

*\*Note: other codes either agreed with the World Cetacean Alliance recommendation or did not mention it.*

**Table 5** shows that there were seven different pieces of advice given to boat operators about minimum approach distance. These ranged from 30m to 100m.

**Table 6.** Maximum Stay Time

WISE	15 minutes
NRW	15 minutes
Natural England MMO	15 minutes
SWATA	15 minutes
Ceredigion	15 minutes
Sea Watch	20 minutes
Iceland	20 minutes
WCA	If the number of boats within 300 metres of a cetacean remains three or less, viewing time should be kept to a maximum of 30 minutes per boat.
SMWWC	30 mins 1 boat, 15 minutes +1 boat
Ireland	30 minutes
France	45 minutes

*\*Note: other codes either agreed with the World Cetacean Alliance recommendation or did not mention it.*

**Table 6** shows that there were six different pieces of advice given to boat operators about maximum stay time. These ranged from 15 to 45 minutes.

**Table 7.** Maximum Number of Boats

NW Europe and WDC	1 boat
Norway	2 boats max within 100m
SMWWC	2 boats
Sea Watch	2 boats within 1km
WISE	2 boats within 1km, 1 boat close proximity
WCA	No more than three boats should be between 300 metres and the minimum approach distance of a cetacean at any one time.
Portugal	3 vessels, 100m
Canary Islands	3 vessels, 200m
France	5 boats
Ceredigion	"avoid bunching"

*\*Note: other codes either agreed with the World Cetacean Alliance recommendation or did not mention it.*



Of all the recommendations, those relating to numbers of boats was most confusing. **Table 7** shows that there were ten different pieces of advice given to boat operators about the maximum number of boats. These ranged from 1 to 5. Of all the recommendations being considered, this one is likely to cause the most obvious impacts.

## 5. Discussion and Conclusions

This research has shown that there are a large number of codes of conduct and an extensive range of recommendations relevant to Minke, Orca and Fin whales migrating along the West Wales coast. Some of the recommendations are consistent, but a large number are not. At best this is confusing, at worst it could be fatal, directly threatening the sustainability of the niche tourism sector. This research has demonstrated that there is a need to standardise global, regional, national and local advice about vessel speeds, minimum approach distances, stay time and maximum numbers of vessels, as well as to reduce the number of recommendations.

It is recognised that things are rarely that simple and that a number of issues are associated with these recommendations. Firstly, it is highly likely that there will be economic, social or environmental interests which take priority in some countries but not others. This could make global agreement very difficult. Secondly, although commercial boat operators might be generally aware of guidelines, detailed knowledge or appreciation of the importance of implementation may be lacking. Accredited training schemes, operating at global scale have an important role to play here, although funding sources are as yet, unidentified. Thirdly, policing of the marine environment is notoriously difficult. There will always be those individuals that flout the codes for personal or commercial reasons and codes need to be flexible enough to provide local solutions (IWC, 2018). Boat operators could be involved in policing, although this would require a formal reporting and response system.

Finally, it is recognized that standardization and streamlining of codes, training and policing of commercial boat operations are not enough. The issue is wider than that, in that recreational boaters are also involved. Awareness raising through education is key to reaching this group, although even with this in place, persuasion can be challenging. A number of reports (E.g. Cressey, 2014; Walker, 2017; Walker, 2018) have suggested that voluntary codes should be reinforced via clear links to statutory measures with properly funded monitoring and enforcement capabilities. This could provide the stiff backbone required. Despite with these shortcomings, the codes have a vital role to play in reducing the cumulative impact of whale-watching. Conclusions are clear. We do not need more codes, but we do need simplicity and consistency. We need to raise awareness of their existence and we need to persuade commercial and recreational boat operators to use them.

The work undertaken here provides an initial insight into the status of marine wildlife codes of conduct that are particularly relevant for boat operators targeting Minke, Orca and Fin whale species along the coast of West Wales. As with all research, it is not without its' weaknesses. The research was fairly simplistic and relied on subjective interpretation of a small sample size. Some codes of conduct were quite dated, therefore might no longer be applied and some were in languages other than English, therefore could have been mis-interpreted. It is possible that codes were not available online, and therefore could have been missed.

Even taking all these shortcomings into account, it is clear that there are too many codes of conduct, that they contradict one another and that recreational boat operators are excluded. This niche tourism sector is under threat. Policy work around standardization and streamlining would be the obvious next step, but in the meantime, further research is required to further analyse these findings and explore factors that might influence adoption of codes.

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**TOURISTS DEMAND ON HERITAGE SITE: A CASE STUDY OF PHUOC TICH VILLAGE,  
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**Abstract:** A deep understanding of the motivations of tourists is essential in the planning and development of community economy through traditional handicrafts and tourism. Phuoc Tich Heritage village, situated in the center province of Vietnam, is well known for its traditional pottery crafts and ancient houses. The paper builds a profile of the tourists who visit the village, with a specific focus on their travel motivations and expenditure, and on identifying from a visitor's perspective where the tourism value chain can be strengthened. The study collected one hundred and thirty-two tourists participated in the self-administered survey and semi-structured interviews. The results show the general demographic profile of a tourist travelling to Phuoc Tich village is someone who is well educated, middle aged, and with a relatively high discretionary income. They are interested in seeing the pottery being made and would like to learn more about the culture and deep into the local people's lifestyles when they are travelling to rural or peri-urban destinations. When the tourists become emotionally involve and truly engage with the simple and slow life at Phuoc Tich Heritage village, they explore local food and cultural behaviours of rural people in an environment that is hundreds of years old. Through this interaction with the residents, the tourists also significantly contribute to enhancing the tourism products. This means that the tourists not only passively take part in the tour and experience the destination, but also actively play the role of the creator of their tourist activities.

**Keywords:** Tourists Demand, Heritage Village, Tourism Value Chain

## **I. Introduction**

By the early 1990s, those writing about the New Age tourism movement highlighted the rising number of 'alternative' tourists who are in favour of more individualistic and authentic experiences. With the radical transformation of the international tourism industry from 'old' to 'new' tourism, Poon (1993) introduced the concept of New Age tourism, one based upon a new common sense, best practice of flexibility, segmentation and diagonal integration. Rid et al (2014) defined the new tourists as 'multi-experience' seekers who show interest in more individualistic and more authentic rural and local holiday experiences. They are more environmentally aware, more quality conscious, more adventurous and more ready to reject the passive, structured, mass-produced package holiday in favour of more individualistic, authentic experiences (Telfer & Sharpley, 2008).

Moreover, when discussing the alternative forms of tourism, Moscardo (2001) also highlighted the tourists' new experiences that are produced from the interactions between them and the objects or ideals presented at the destinations. Sharpley (2002) argued that one of the misunderstandings about tourists is that we think they are just regular consumers or shoppers seeking products, but in fact their principal objective is experience consumption. The experiences and the accompanying emotions of tourists are now part of the tourism product (Lohmann, 2004; Prayag, Hosany, & Odeh, 2013; Rid et al., 2014).

Together with tourism development, through the sale of local cultural products and services directly to visitors, the people in rural or peri-urban areas can earn additional income. Chok et

al. (2007) argued that unlocking opportunities for the tourists to discover more about the activities of traditional handicraft villages will increase benefits for the destinations, and hence is an alternative strategy to merely expanding the overall number of tourists arriving. A range of studies have examined the positive role that handicraft sales can play in increasing the benefits that local communities receive from tourism (Mairna, 2011; Nedelcheva, Dogan, Obratov-Petkovic, & Padure, 2011; Tsuji & Van, 2002).

To promote tourism and community economic development in rural areas, further knowledge is required to understand why tourists are motivated to engage in distinct tourism market segments (Rid et al., 2014). Tourists are not a homogenous group – they have differing needs, tastes and spending power (Noronha, 2010). Thus, understanding tourists' behaviours and their motivations in visiting a destination is the key point if one wants to be able to explain the reasons why people travel long distances to visit a particular place. Indeed, one of several reasons for the failure of recently completed tourism projects is their focus on developing products and producers but not on tourists' needs (Spenceley et al., 2009).

## **II. Consumer Behaviour in Tourism**

Tourists' behaviour is one of the most researched areas in the field of marketing and tourism. It is generally considered as a continuous process that includes varied yet inter-correlated stages including before, during and after tour (Mill & Morrison, 2002). Tourism researchers have developed the nine key concepts (including decision making, values, motivations, self-concept and personality, expectations, attitudes, perceptions, satisfaction, trust and loyalty), specific influences (technology and generation Y) and particular research contexts that present major areas of the topic (Cohen et al, 2014).

Motivation is one of the key concepts in tourism academics, given its importance in marketing decisions such as segmentation, product development, advertising and positioning (Bieger and Laesser, 2002). According to Cohen et al. (2014), several theories or models have been developed to explain motivation such as those of Plog's (1974) 'allocentric and psychocentric', Dann's (1977) 'push and pull', Pearce's (1988) 'travel career ladder' and Ross and Iso Ahola's (1991) 'escape seeking'. Among them, the push – pull approach remains the most widely applied for explaining motivations, given its simplicity and intuitive approach (Klenosky, 2002). Tourists are pushed by their biogenic and emotional needs to travel and pulled by destination attributes (Yoon & Uysal, 2005). It is very important to know the 'push' and 'pull' motivation of tourists. That is, why do tourists choose (or not choose) one destination over another and what the tourists' experiences are about the place, the products and the people they visited (Correia, Moital, Oliveria, & da Costa, 2009; Devesa, Laguna, & Palacios, 2010). The author Ateljevic (2000) stated that researchers should no longer relegate tourists to having merely a passive role; rather, research should be broadened to understand the role of consumers and their consumption habits. Thus, we should not only pay attention to the quality and quantity of the commodity, we should also broaden our knowledge about the tourists' expectations when they participate in the process, and their voices have to be heard.

## **III. Phuoc Tich Heritage Village**

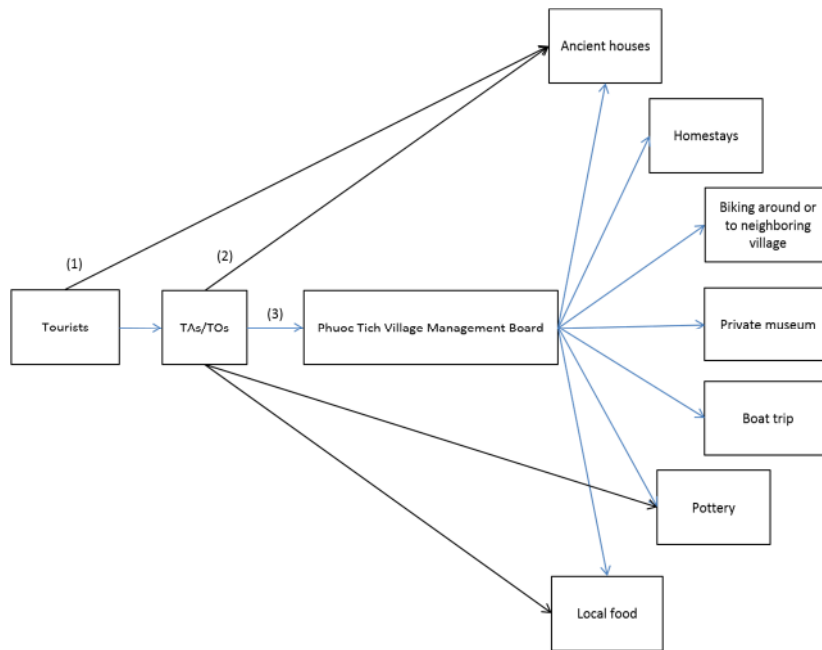
Phuoc Tich Heritage village, situated in the center province of Vietnam, is well known for its traditional pottery crafts and ancient houses. The village is located in Thua Thien Hue Province and between two world-renowned attractions: Son Doong the world's largest caves, and Complex of Hue Imperial Citadel Monuments. In 2009, Phuoc Tich was recognised as the second National Heritage village in Vietnam, it became a new tourist destination in Thua Thien Hue province. The competitive advantage of Phuoc Tich Heritage village lies in the unchanged nature of all its key elements, from its ancient houses, folk festivals and traditional handicraft

through to its green natural environment and the everyday life of its inhabitants. In the past, pottery making brought prosperity and a high standard of living to the villagers of Phuoc Tich (Dan, 2005; Thong, 2010). Most of their jobs were pottery related, but when the potteries stopped working 20 years ago, the villagers shifted to other small-scale jobs or day-labouring. Today, many of the villagers who had changed their occupations now have a stable living standard. There is currently around one-third of households involved in casual labouring work, but nearly two thirds of all households are retired people whose children are working in the region or far away. Apart from a small pension, the old people rely on the support of their children.

At present, many local residents of Phuoc Tich village have become stakeholders in tourism, either because they are affected by tourism development passively, or because they are actively and directly using tourism as a strategy for their development. Local cultures, natural resources and historical artefacts of Phuoc Tich Heritage village are not only potential resources for tourism development, though, they are also local resources shared by all Phuoc Tich villagers. As in community-based tourism projects around the world, moving up the tourism value chain or 'mainstreaming' is important. Mainstream means transforming the whole community's resources into the tourism products for tourists, to force individuals to conform to the mores of the community. In the heritage village, the tourism value chain presents several types of tourism products such as visiting the ancient structures and spaces of typical garden houses in central Vietnam (Phuoc Tich has 24 130-year-old intact houses built in the ancient style), experiencing pottery making, cycling inside the village, tasting local dishes, taking a boat trip on the O Lau river, and experiencing a homestay hosted in one of the ancient houses. The pottery techniques and architecture of the houses have been preserved for hundreds of years in the traditional style and so they are invaluable, both architecturally and culturally.

The tourism value chain in Phuoc Tich Heritage village comprises tourists, travel agents and tour operators (TA/TO), the Phuoc Tich management board (PTMB) and the local residents who supply several tourism services to tourists. The current tourism value chain (TVC) for Phuoc Tich is presented in **Figure 1** (on next page)





**Figure 1:** The current tourism value chain at Phuoc Tich Heritage village

In this TVC, the tourist either books a tour programme with a defined itinerary from a TA/TO or drives themselves to Phuoc Tich Heritage village as a free and independent traveller (FIT). While a FIT can explore Phuoc Tich village and visit the pottery kiln or an ancient house (option 1 on Figure 1), a booking through a TA/TO enables the visitor to also enjoy several services from local households at Phuoc Tich, such as having local meals, homestay accommodation, and watching pottery being made. Because of the close connections with several households before the existence of the PTMB, the TO/TAs used to call the households directly to book the services they needed, and the tour guide paid the household directly (option 2 on Figure 1). Currently, the TO/TAs book the local services through the PTMB (option 3 on Figure 1), so the PTMB has an important role in coordinating between the TO/TAs and the local service suppliers. This is in contrast to the situation with FITs (option 1), where the dominant roles of TO/TAs and the PTMB are not present. Building strong connections between tourism and local economic activities via the supply chain will ensure that tourism contributes to a fair and sustainable socio-economic development (Tapper, 2001). For that reason, the value chain can either help the producers or not, depending on how the interventions are structured in that chain (Spenceley et al., 2009).

#### IV. Methodology

The study applied semi-structured interviews and self-administered surveys to tourists to understand their behaviour before, during and after their visit to the village. The domestic and international tourists can be categorised as belonging to one of two groups: the homestay tourists, who stay overnight in a traditional-architecture historic house, and the day visitors. The key questions in the interviews were: what motivated the tourists to choose the traditional handicraft village to be their travel destination; and what their expectations were when participating in the tourism chain and interacting with the local residents. While the day-visit tourists who were in the village during the data collection period were invited to complete the questionnaire. The self-administered visitor questionnaire consisted of 43 closed and open-ended questions, which were offered in Vietnamese, English or French, reflecting the dominant tourist markets. Tourists' trip-related planning activities were included in the first part of questionnaire; the second part surveyed their experiences in Phuoc Tich village; and the final part comprised the tourist-related information questions needed for statistical purposes. One

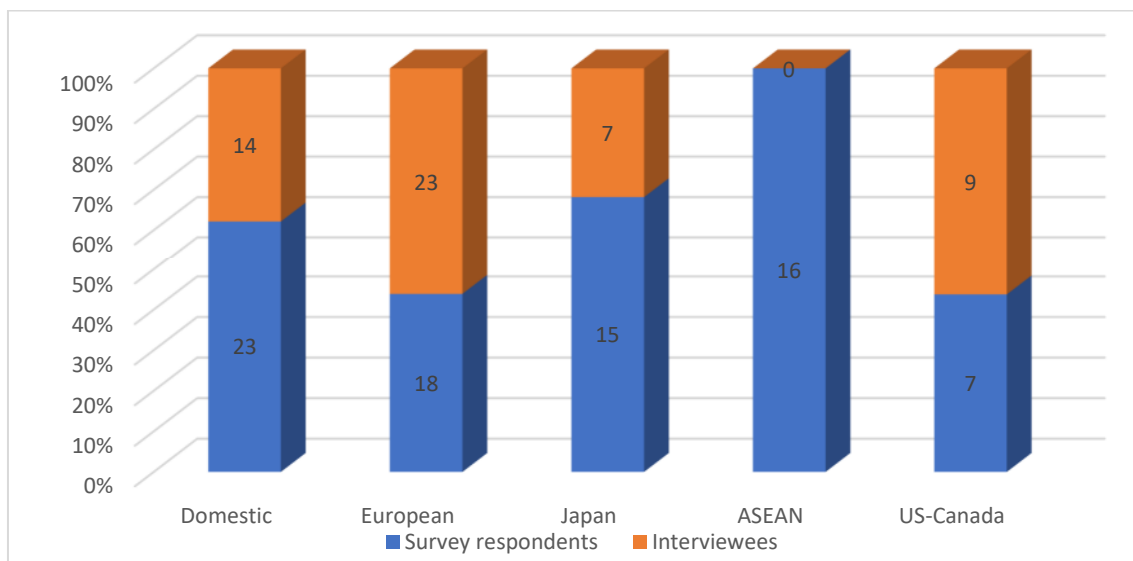
hundred and thirty-two tourists participated in the survey and semi-structured interviews in the study, which are 53 face to face interviews and 79 completed questionnaires.

## V. Results

### 5.1 Tourists' Profile and Expenditure

Based on a representative sample, this study found that the general demographic profile of a tourist travelling to Phuoc Tich village is someone who is well educated, middle aged, and with a relatively high discretionary income by nationalities. The majority of the tourist participants (72%,  $n = 95$ ) were international visitors; only 28% were domestic visitors. Most of the international visitors were long-haul tourists from Europe, Japan and the US or Canada, with 31% of the arrivals coming from either France or Germany; a further 17% came from Japan, 12% from the US or Canada, and 12% neighbouring ASEAN nations. These countries are the main source markets for Vietnam's overall tourism industry (VNAT, 2010). The tourists who participated in the study were mainly male (70%), on their first visit to Phuoc Tich Heritage village and in groups (appr. 90%); ( $n = 43$ ) of the respondents were travelling with their family, while only 13.4% ( $n = 18$ ) of tourists travelling alone. There was a statistically significant difference between the companion travelling habits of the groups of visitors from different countries ( $\chi^2 (8, n = 132) = 31.440, p < 0.05$ ), with analysis of the data showing that 'nationality of tourists' was associated with 'travel companion'. A high percentage of the North American (75%) and European (63.4%) tourists who were visiting Phuoc Tich village were travelling with family, whereas the Japanese, ASEAN and domestic tourists were likely to be travelling with their friends.

**Figure 2:** The nationalities of the tourist participants, by type of research methods ( $n = 132$ )



**Figure 2** breaks down the nationalities of tourists according to how they participated in the study. Twenty-nine per cent of those who participated in the face-to-face semi-structured interviews were domestic tourists and 71% were international tourists, with similar proportions completing the survey (26% and 74%, respectively).

The tourists who participated in the research had an average expenditure per person per visit on tourism services such as tasting local dishes, homestay services, boating services and bicycle rental (see Table 1). Expenditure on other services such as visiting a Heritage house or the local museum are included in the price of the package tour, and directly paid by the tour guide to the local people. Many of the tourists (41.5%) travelled on all-inclusive package tours.

**Table 1:** Statistics of tourists' expenditure at Phuoc Tich Heritage village in 2012

ACTIVITIES AND SERVICES	NUMBER OF TOURISTS	NET REVENUE (US\$)	AVERAGE EXPENSES (US\$)
Food (drinks excluded)	426	2335.0	5.5
Homestay (including breakfast, and coffee/tea)	41	324.0	7.9
Boat rent	30	300.0	10.0
Bicycle rent	136	136.0	1.0
Pottery performance (served by two persons)	18	90.0	5.0

**Source:** Phuoc Tich Management Board (PTMB) (2013)

The statistical data above shows that the tourists had spent very little in the village. Although a majority of the tourist participants (76.5%) had bought canned or cold bottled water during their meals at the ancient houses, their expenditure was nearly always US\$2 or less. Furthermore, fewer than one in five (19.2%) had bought Phuoc Tich pottery, and very few (9.9%) had bought local food. The average spent by a one-day visitor is lower than that spent in the village by an overnight tourist.

Generally, the tourist expenditure is low for both FITs and those travelling in group inclusive tours (GITs). This low expenditure can be explained by the local expenditure analysis which revealed that the village is not meeting the tourists' needs for local products (pottery, foods and beverage) and services; this is a potential market that has yet to be tapped into.

## 5.2 Tourists' Motivations and Expectations to Phuoc Tich Heritage Village

The majority of tourists travelling to Phuoc Tich village can be classified as curiosity seekers, motivated by the pull factors of the authenticity and unique characteristics of the village. Many of the tourists were visiting Phuoc Tich to experience a broader sense of place and to get away from some of the more mainstream tourism experiences – with pottery not featuring as a factor in the decision to come to this village. For some, their interest in pottery was less about the products themselves and more about the way in which village life was shaped by the economic activity of pottery production.

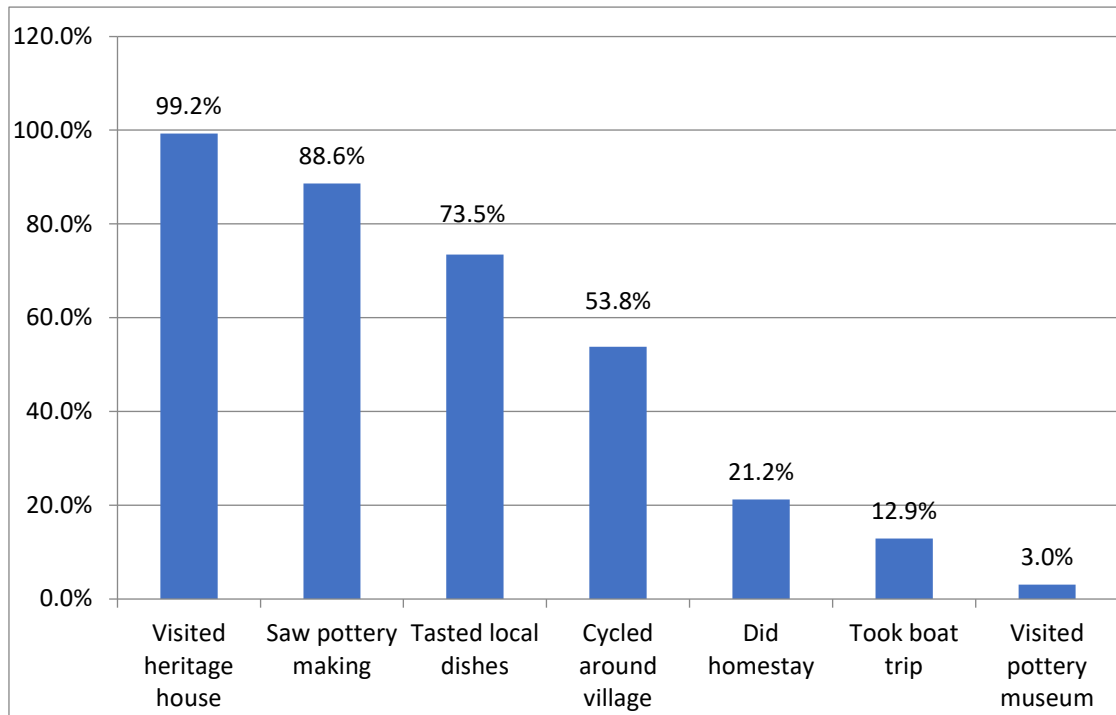
The tourists had adopted a multiple-mode approach to gathering information about Phuoc Tich Heritage village. Overall, 90.4% of the tourists claimed that travel articles and documentaries are an important or somewhat important source of information that influenced their decision to travel to Phuoc Tich Heritage village. This is reflected in the high mean score of 4.29 (out of 5) for this element. Other important sources of information they had used when deciding to travel to Phuoc Tich are a travel book, travel guide or brochure. The study also found out the statistically significant ( $p < 0.05$ ) of the fact that the tourists with higher levels of education are interested in seeing the pottery being made and knowing more about the culture of the local people.

The tourists were asked to indicate which activities they had participated in, or services they had used, during their visit to Phuoc Tich Heritage village (see Figure 3). Nearly all of the tourists (99.2%) had seen the architecture and designs of the local Heritage houses, viewing both the interior and exterior of the houses. A large percentage of visitors (88.6%) also stated that they had seen the pottery being made in the pottery production space.

Nearly three quarters (73.5%) of the respondents reported that they had tasted local dishes, and more than a half (53.5%) had enjoyed the cycling activities around the village (see Figure 3). The number of tourists who cycled around the village included both the tourists who had

used National Way Number 49B to travel to Phuoc Tich and the tourists who had rented a bicycle and cycled around the village.

**Figure 3:** Activities and services the tourists had participated in during their stay at Phuoc Tich Heritage village ( $n = 132$ )



At Phuoc Tich, traditional pottery production is one of the main cultural activities on offer for visitors (Thong, 2010). All of the research participants were asked how interested they were in the traditional pottery activities, and if they would like to participate in more pottery-related activities at Phuoc Tich Heritage village. A 5-point Likert scale was used, with 1 being ‘Not at all interested’, up to 5 which is ‘Extremely interested’ (see **Table 2**).

**Table 2:** The tourist participants’ interest in traditional pottery activities ( $n = 132$ )

	Mean	Std. Dev.
Want to know more about the history of the local pottery industry	3.68	0.713
Want to make the pottery with the guidance of local potters	3.60	0.686
Want to buy pottery in Phuoc Tich Heritage village	3.50	0.682
Want to design and make a product on my own	3.19	0.568

The mean score of 3.68 (out of 5) for “Want to know more about the history of the local pottery industry” and 3.60 (out of 5) for “I want to make the pottery with the guidance of local potters” reflected the fact that tourists are interested in these experiences. The interviews with the tourists revealed that there were more opportunities that could be developed at Phuoc Tich Heritage village. There were tourists who wanted something “more detailed and meaningful”, and there were also several who wanted to have their own creative pottery experiences. More than half of the domestic tourists who visited Phuoc Tich noted that they were moderately or extremely interested in learning more about the history of the local pottery industry.

Making pottery under the guidance of local potters and then firing that pottery was a new experience for nearly all the tourists. Ek et al. (2008) highlighted that tourists not only consume experiences, but also co-produce, co-design and co-exhibit the potteries. In Phuoc Tich village, the pottery demonstrations for tourists are performed by the older potters, while the young potters are in charge of pottery production. During the time of the research the tourists could experience only the first stages of the pottery production process – how to knead clay and shape pottery – but they were not able to participate in the later stage of firing the pottery. It is not easy to have a completed pot because the costs of firing are high, especially if the kiln is not fully loaded.

Most of the tourists who were visiting Phuoc Tich wanted to buy something as souvenirs, symbolic reminders of their experiences at a Heritage village. There were some tourists who preferred the plain unglazed pottery decorated with simple regional characteristics, while others preferred the glazed pottery with detailed carvings. There was also demand for larger objects from domestic travellers, with international travellers often preferring smaller objects. The souvenirs the tourists buy may be never used, but they give the travellers pleasure as they talk about where and how these products are made when they return home.

### **5.3 The appealing image of Phuoc Tich heritage village**

Generally, the most appealing images for many domestic tourists are the green hedging of the ancient architecture houses and Phuoc Tich Heritage village's small roads, as well as the effort made by the local residents (including potters) in the conservation and development of their traditional handicraft. While the international tourists thought the most appealing images of Phuoc Tich village were to do with participating in the traditional pottery production chain and sleeping in ancient houses with traditional architecture, as well as the warm welcome from the local people, and the green hedging and gardens in a rural setting. Many tourists showed their appreciation by writing positive comments in the visitors' books, and some even sent letters to their host thanking them for the precious experiences they had had during their time at Phuoc Tich Heritage village.

However, more than a half of the tourist participants' interviewed have complained that there was "nothing to do" and a "lack of activities" in the village, or that Phuoc Tich "just seemed like an isolated and desert planet", while a fifth of the comments complained that the "the pottery is simple, and not quite impressive". A majority of the domestic tourists (65%) were surprised to find, for example, that not many local inhabitants participate in the pottery production process and that there are not many remnants left related to the famous pottery history of the village. Several tourists (n = 6, 26%) had hoped that they could see the fire and feel the temperature of the kiln at the pottery village. There was also the expectation that several households would be producing pottery, whereas there were only two potters working on the day the tourists visited. Overall, tourists expressed a desire to interact more with the local inhabitants while experiencing the social, cultural, spiritual and aesthetic attributes of the village.

## **VI. Conclusion and Recommendation**

In conclusion, the tourists and local community are both key elements in the tourism value chain. A visit to Phuoc Tich Heritage village enables the tourists to experience a rural lifestyle that is very different from that of city dwellers. At Phuoc Tich Heritage village, many tourists want to directly participate in the local residents' daily activities and try their hand at pottery production. This involvement in the tourism chain and other local activities will enhance the tourists' authentic experience of the village. Tourism is not just travelling, tasting local foods and ambling; it is also a memorable experience in the tourist's life. With the fast pace of

development of the tourism industry, tourists' expectations are changing and so, then, are the specific needs for their trip.

The study also finds that participating in traditional handicraft production processes should be considered an attractive tourism activity at a traditional handicraft village. Tourists, as creative and expressive beings, plan their journeys, 'do' things, and exhibit their experiences; thus, tourists play an active part in the production and circulation of experiences. The tourists become emotionally involved and truly engage with the simple and slow life at Phuoc Tich Heritage village as they explore local food and cultural behaviours of rural people in an environment that is hundreds of years old. Through this interaction with the residents, the tourists also significantly contribute to enhancing the tourism products. This means that the tourists not only passively take part in the tour and experience the destination, but also actively play the role of the creator of their tourist activities.

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CONFERENCE REPORT  
10<sup>TH</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE NICHE TOURISM  
26-28<sup>th</sup> JUNE 2019, DA NANG, VIETNAM  
Dr Maria Konstantaki, England, UK

The conference was attended by 80 delegates from 30 countries. Speakers of international standing gathered in Da Nang to identify and debate the latest issues and suggest strategies in the planning, development, marketing and management of Niche Tourism. The keynote speakers featured Professor Carlos Costa, University of Aveiro, Portugal and Professor Huong T. Bui, Ritsumeikan, Asian Pacific University, Japan who discussed tourism potential to boost local development and the socio-ecological systems approach to managing tourism in a living heritage site, respectively. There was a range of symposia, plenary sessions, oral presentations arranged in the two research-packed days. Delegates presented a range of interesting and thought-provoking papers on: Vortex Tourism, Heritage Tourism, Homestay Tourism, Environmental Sustainability Tourism, Marine Wildlife Tourism, Tea tourism to mention a few. The conference venue was the very impressive Novotel Conference Centre overlooking the Da Nang River and its intelligent design, colourful bridges. The conference hospitality included an exquisite cuisine of local delicacies and beverages at the conference where delegates had the opportunity to network in an informal and relaxed atmosphere.

The conference tours included day trips to Bana Hills and Cham Island. The trip to Bana Hills included a cable car ascent to 1000 m, a walk on the world-famous Golden Bridge, and a further ascent to the highest point of 1485 m Buddhist temple surrounded by tropical gardens and offering amazing far reaching views of Da Nang and the Vietnamese coastline. The trip to Cham Island included a snorkelling experience of the coral reef alongside a boat transfer to and from the island, a guided tour and a most delicious lunch followed by a much-deserved relaxation on the island's sandy beach under the shade of coconut trees. Groups of delegates took a trip to Hoi Ann, the traditional Vietnamese model town about an hour from Da Nang and experienced the local atmosphere of a UNESCO heritage site. The guided tours formed unforgettable experiences and acted as catalysts for generating new friendships and networking opportunities.

The city of Da Nang has a lot to offer to the visitor. From a safe stroll along the Dragon Bridge watching the dragon breathing fire on Saturday night to the most interesting Museum showing artefacts of the Chum Dynasty to the outstanding food at Madam Lang's busy restaurant and the lovely people of Vietnam. As a delegate I had a wonderful experience in Da Nang and was impressed by the quality of the conference outputs. I hope to see friends and colleagues at the forthcoming conference on *Sustainable Tourism, Culture and Sports 15-17 April 2020, Kathmandu, Nepal*. Special thanks to the conference organisers, Professor Eugenia Wickens, Dr Ali Bakir, Dr Vasiliki Avgeli, and Ian Wickens for making this experience possible.