LOCAL RESIDENTS’ ATTITUDES TOWARD THE IMPACTS OF TOURISM DEVELOPMENT IN THE CARIBBEAN NATION OF ST. KITTS & NEVIS

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Abstract
The attitudes and perceptions of local communities or residents are of special interest when examining and managing the economic, socio-cultural and environmental aspects of tourism development in a given area. This is of particular importance to Small Island nations like those located in the Caribbean. In this paper, we analyzed the perceptions and attitudes of residents in an emerging tourist destination: the nation of St. Kitts & Nevis. A survey of residents produced 360 useable questionnaires and the data was analyzed using the independent t-test and ANOVA. St. Kitts & Nevis had relatively few international tourists until both air and seaports were renovated to accommodate jet aircrafts and large cruise ships along with two additional large hotels. The island nation is currently experiencing a tourism boom that is altering the way of life of local residents. The current research paper provides a better understanding of local residents’ attitudes toward the impacts of tourism development. The results reveal that, in general terms, the local community perceives that tourism brings economic opportunities and has other positive impacts such as increased investments in infrastructures and higher quality hospitality and retail establishments.

Key words: island destinations, residents’ attitude, tourism development, local communities, perceived impacts

JEL Classification: Z

I. INTRODUCTION
According to the World Tourism Organization, in recent decades, the tourism sector has increased its contribution to global GDP, although important differences still exist across countries, (WTO, 2014). As a result of this expansion, there is growing interest in the study of the impact of tourism development on surrounding environments. Cultural interactions between local residents and tourists during their stay are common and give rise to changes in the quality of life of both individuals and communities by affecting value systems, family divisions and relationships, attitudes, behavioral patterns and expressions of creativity (Fox, 1977; Cohen, 1984; Pizam & Milman, 1984). Two major events, in particular, influenced changes in the quality of life of the local community: tourist-resident relationships, and the development of the tourism industry itself (Puczko & Ratz, 2000). In order to stimulate tourism development in a given geographic location, it is vital to gain the cooperation of a number of stakeholders (Lanquar, 1985; Vargas Sanchés, Plaza Mejía & Porras Bueno, 2007), particularly destination communities, coastal and inland locations, as well as public agencies, tourism agents and promoters, and tourists themselves. In addition, it is essential to take into account the perceptions and attitudes of local residents when designing tourism development policies (Allen, Long, Perdue & Kieselbach, 1988; Ap, 1992; Diedrich & Garcia-Buades, 2009; Gold, Liu, Monroe, & Wu, 2010; Gursoy, Jurowski & Uysal, 2002; Ritchie & Inkari, 2006).

Tourism has evolved into one of the fastest growing industries worldwide and has become the impetus behind economic development efforts of urban areas and rural communities. Many rural communities both in developed and developing nations, as well as in small island states, have adopted tourism as the most viable option for economic, socio-cultural, as well as environmental sustainability, (UNEP, 2002; WTO, 2002). However, some of these communities have, through tourism, experienced negative impacts, ranging from socio-cultural to environmental devastation, due to: a) uncontrolled development, b) the lack of integration of different institutions within the destination, c) failure to recognize the local residents’ perceptions and views toward development, and d) the exclusion of local people from the planning exercise (Stonich, Sorenson & Hundt, 1995; Williams, 2002; Mowforth & Munt, 2003; Lansing & de Vries, 2007). This phenomenon encouraged the researchers to explore how tourism can be developed as a tool for community and economic progress of the Islands of the Caribbean.
Mass tourism remained dominant in the world tourism market for a long period. However, in the 1970s, some criticisms of this type of tourism development were brought forward mainly due to the negative impacts that mass tourism can bring to a destination (Scheyvens, 2002). At the same time, neopopulist approaches to tourism development emerged that assumed that bottom up, rather than top-down, tourism development is advisable. Tourism development became more preferable through empowerment of communities through skill, knowledge and resources of the community. Neopopulist approaches mainly stressed the importance of an increased participation of the host community in tourism development rather than it being state controlled or market led (Scheyvens, 2002). Therefore, the development of community managed tourism development has emerged to give a response to criticisms of the social, economic and environmental negative effects of mass tourism. “Community Based Tourism” is a form of tourism where the local community has substantial control over, and involvement in its development and management, and a major proportion of the benefits remain within the community (Denman, 2001). The rationale for community-based tourism is the search for successful strategies for conservation and development. It consists of a moral perspective that argues that management of local people accompanied by devolved decision-making is preferable since it can be accountable and sustainable in the long term and the commercialization, monopolization and accumulation of benefits from tourism among the local community (Mountain Institute, 2000).

With a view of involving local residents in tourism policies, it is essential that residents have a positive attitude toward tourism development in their community. When this is not the case, unsatisfied, apathetic or unhappy residents will ultimately transmit their feelings to tourists, who, in turn, are likely to be reluctant to visit destinations where they feel unwelcome (Fridgen, 1991; Royo & Ruiz, 2009). Moreover, the local residents will be unwilling to work in the tourism industry, there will be fewer entrepreneurial and innovative initiatives, and resident-tourist interactions will very likely be negative (Pearce, 1998; Diaz & Gutiérrez, 2010). In short, given that resident behavior is an essential aspect of the tourism product, the ultimate goal is to understand and subsequently manage residents’ attitudes and seek support for the area’s tourism development model (Akis, Peristianis & Warner, 1996; Diaz & Gutiérrez, 2010).

The research objectives are described as follows:

• To analyze any variations in public attitudes towards tourism of the economic, social and environment impacts.
• To examine if there are any significant differences of opinions between the residents of St.Kitts and the residents of Nevis
• To discuss how the findings can be used to inform policy both at a project level and at a more macro level of setting national and sectoral policies especially as they relate to tourism growth and sustainable development.

The paper consists of seven sections. The next section presents an overview of St.Kitts & Nevis, then the literature review and conceptual development. It is notably that only few literatures were found investigating tourism impact on the Caribbean, which makes this study valuable. Research methods are discussed in the fourth section while results and the statistical analysis comprise the fifth. Discussion and conclusions are done in the sixth section and the last section has the references of the study.

In this paper, the researchers analyze the attitudes of residents in an emerging tourism destination: the islands of St. Kitts and Nevis in the Caribbean, which is currently experiencing a tourism boom that is altering the way of life of its residents. Tourism made up 48% of GDP in 2010 rising to 62.4% in 2018, tourism is growing, and growing fast. Growth, on its own, is not enough. St.Kitts & Nevis and their stakeholders are responsible for ensuring that growth is well-managed; that benefits are maximized; and that any negative externalities are minimized. This requires research and involvement of the local community and a continuous process of planning and management that evolves and that can be measured over time. This shows the value of this paper and its results can help to guide government tourism policy. Even though this type of research has been done, none is as unique as St.Kitts & Nevis where the contrast cannot be greater; one nation with two Islands that are significantly different in culture.

Tourism accounts for about 30% of the workforce with tourists’ expenditure reaching a record US$186 million last year to determine the attitudes of the residents we conducted a survey of 360 residents during 2014-2015. Respondents were asked about their personal opinions of tourism on the islands, as well as its positive and negative impacts. Tourism development is a double-edged sword for local communities and attitude directly affects the current and future tourism development. Community positive attitudes will encourage tourists’ satisfaction levels and contributes to the word-of-mouth promotion among them. Therefore, the involvement and the participation of the host community are pertinent towards the success of the tourism development plan.
II. TOURISM IN ST. KITTS & NEVIS

Saint Kitts and Nevis form one nation with two islands in the Caribbean, although once reliant on sugar monoculture, there were challenges of industrial diversification at such small scale, electronics assembly, food-processing, beverages and clothing production were developed. By 2000 sugar production only accounted for some 20 per cent of GDP and by 2005 the sugar was closed altogether mainly because of the elimination of a guaranteed price by the European Community forcing St.Kitts/Nevis to compete with nations producing sugar at significantly lower prices. The islands still carry on small scale production of crops, including rice, yams, bananas and cotton, but its present economy is based primarily on tourism. St. Kitts/Nevis is an upper-middle income nation in the Caribbean. However, the country is vulnerable to external shocks and natural disasters, as evidenced by the effects of the 2001 and 2008 global economic downturn and the hurricanes that have struck the Caribbean in the past few years. After strong economic growth in 2000, the economy hardly grew in 2001–03, reflecting the downturn in the USA and consequent fall in tourism, but there was investment in new tourist resorts and golf courses, and the economy picked up in 2004. It then maintained growth of 5% per annum over 2004–08, slowing from 2008 with the onset of the world economic downturn in that year, shrinking by 5.6 per cent in 2009 and 3.2 per cent in 2010. After a pause in 2011–12, good growth returned from 2013, continuing into 2018. According to the Eastern Caribbean Central Bank (ECCB), St. Kitts/Nevis had an estimated Gross Domestic Product of USD $787.8 million in 2016, with forecast growth of 3.1 percent in 2017. During the last fiscal year, the economy of St. Kitts/Nevis remained buoyant fueled by revenue from its Citizenship by Investment program, decreased oil prices, a robust construction sector, and increased tourist arrivals.

The government remains committed to creating an enhanced business climate to attract more foreign investment. Because of its multiple effects, tourism development is vital to the economy of St. Kitts/Nevis therefore future tourism developments are in the works. Due to the increase of tourist interest for islands, unless tourism development is properly planned, islands can be vulnerable to the dynamic mix of environmental uses. In order to be sustainable, island tourism destinations have to reconcile social, environmental and economic aspects of its tourism development. In that sense, and in order to provide more positive economic effects for host communities, tourism development has to satisfy the needs of all stakeholders; local authorities; tourism management; local population; and tourists; but at the same time it has to take into consideration the fact that all activities have to take place in the preserved cultural and environmental surroundings. Level of analysis for statistical data and research studies tends to be at the country level. In other words, while the islands comprise the Federation of St. Kitts and Nevis, the differences between the two are often not acknowledged. The pace of tourism development has been more rapid in St. Kitts. The nature of tourism development is also different between the two islands. St. Kitts is more oriented towards cruise ships and Nevis is more dependent on high end hotels and resorts. Therefore, it is likely that there would be differences in perceptions between the residents of the two islands. This paper examines differences in the perceived economic, socio-cultural, and environmental impacts of tourism between residents of St. Kitts and Nevis.

III. LITERATURE REVIEW

Social Exchange Theory holds that individuals select their interactions after evaluating their costs and benefits (Homans, 1961). Social exchange theory, power theory, and identity theory have all been extensively utilized as a basis for research examining tourism developments’ impacts on host community residents (Nunkoo & Gursoy, 2012; Nunkoo & Ramkisson, 2012; Ward & Berno, 2011). Research utilizing these frameworks generally use attitudes toward or support for tourism development as measures of resident responses. While attitudes toward and support for tourism development are no doubt useful, this vein of research has largely ignored how individuals emotionally and behaviorally experience the tourism developments' impacts on host community. According to this theory, attitudes are affected by the perception of the interactions that individuals believe they are performing. In short, individuals who stand to gain personally from tourism also perceive greater economic benefits and fewer negative social and environmental impacts arising from tourism development than those who do not (Getz, 1994). Community development can be referred to as a social process that involves opportunities to different stakeholders, to become part of the social change, based upon equitable, fair and just transformation toward progress. Further, many scholars have also stressed that community development involves educating the local people as part of the social change that liberalize or remake the work of the community/ies (Kymlicka, 2002; Ledwith, 2005).

Much of the research on this subject has found that host communities are influenced by the perceived impact of tourism in three basic cost-benefit categories: economic, environmental and social (Murphy, 1985; Gunn, 1988; Gee, Mackens & Choy, 1989; McIntosh & Goeldner, 1990; Gursoy et al., 2002; Vargas Sanchés et al., 2007). Some authors break the “social” category down into two further categories, social and cultural,
and thus consider four categories of factors.

According to Díaz and Gutiérrez (2010), given that several impacts can converge in several dimensions or categories, more or less relevant impact-dimensions can be observed according to groups or segments. The interests of each group of residents will differ in terms of their predisposition toward tourism depending on how they are affected by the different dimensions. Both positive and negative social, environmental, cultural and economic impacts are closely linked. Some studies have concluded that it is likely that residents of economically depressed regions will underestimate the costs of tourism development and overestimate the economic benefits such development will bring (Liu & Var, 1986; Sheldon & Var, 1984; Var, Kendall & Tarakcoglu, 1985). As a result, it would seem feasible that the poorer the perception of the state of the local economy, the better the community’s reaction to tourism (Cater, 1987; Harris, McLaughlin & Brown, 1998).

Community participation can benefit the local community through ensuring the economic benefits from tourism stay among the residents as they are the tourism dependent communities (Scheyvens, 1999; Mitchell & Reid, 2001; Hipwell, 2007; Trejos & Chiang, 2009). According to Timothy (1999), community participation in tourism can be examined from two perspectives: decision-making process and tourism benefits. Ying and Zhou (2007) contended that decision-making process allows residents to be empowered in tourism development through the ability to express their concerns and desires while an example of tourism benefits is gaining employment opportunities. Residents will have a more favorable attitude toward tourism development provided they perceive a positive outcome from their relationship with tourists and tourism activity (Allen et al., 1993). However, due to the heterogeneity of the destination community, there will always be groups that support tourism development when they see that an exchange is beneficial to their well-being, while others will oppose it if they feel that the exchange will somehow be detrimental to them. In its guide for local administrators, the World Tourism Organization acknowledges a number of positive and negative socioeconomic impacts of tourism (see Table 1). The environmental dimension of tourism also has both positive and negative aspects: tourism can be the basis for protecting natural resources and conserving homogeneous urban designs (Díaz & Gutiérrez, 2010) or, in contrast, a tourism model in which visitor numbers are controlled, although managed to some extent by local authorities could be geared toward specific individual goals.

### Table 1. Socioeconomic Impacts of Tourism

<table>
<thead>
<tr>
<th>Positive Impacts</th>
<th>Negative Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic benefits</td>
<td>Economic distortions</td>
</tr>
<tr>
<td>Employment and income earning opportunities in the tourism sector</td>
<td>Increase in the price of land and property</td>
</tr>
<tr>
<td>Promote local businesses</td>
<td>Loss of authenticity in cultural manifestations</td>
</tr>
<tr>
<td>Foreign exchange earnings</td>
<td>Social problems such as alcoholism, prostitution, drug addiction, etc.</td>
</tr>
<tr>
<td>Multiplier effect on other economic activities</td>
<td>Demonstration effect (where locals imitate the dress and behavior of tourists)</td>
</tr>
<tr>
<td>Improved financial infrastructure</td>
<td>Congestion of tourist attractions</td>
</tr>
<tr>
<td>Conservation of cultural heritage</td>
<td>Employment of non-residents in the area</td>
</tr>
<tr>
<td>Cultural exchange between tourists and residents</td>
<td>Economic benefit exclusively for proprietors</td>
</tr>
</tbody>
</table>


Caribbean Communities and Attitudes towards Tourism Development

Vanegas & Croes (2003) study focused on tourism economic growth and its development impacts on the microstate of Aruba. The evidence presented in their paper reveals that tourism in Aruba can generate desirable and widely distributed impacts. The tourist performance also has been remarkable and consistent. The results also suggest that the export-led growth strategy has affected the whole of the economy in a positive way. The principal conclusion is that institutional intervention can only become a positive force within a context of rapid integration with the global market. The results also suggest that the export-led growth strategy based on tourism as a means for achieving development in Aruba has worked.

Thermil & Sheaffer (2004) study investigated the perceptions of Haitians regarding social, economic and environmental impacts which tourism development might have in rural areas of Haiti. Three sites were chosen based on their annual flow of visitors, namely low, moderate and high. The results show that perceptions of locals toward social impacts and economic impacts became more positive with increased flow of visitors, however, the flow of visitors was perceived as having a negative impact on the environment. The perceptions of vacationers about social impacts of tourism were more negative among older vacationers than younger vacationers. Locals and vacationers had different perceptions about the future development of tourism in rural Haiti. Claudel Mombueil (2018) in a more recent study in Haiti examines the extent to which tourism development may affect social, economic, and environmental conditions of communities of the Sud Department of Haiti particularly Les Cayes tourism cities. According to the
results of this study, the development of tourism has mainly positive financial benefits and positive cultural impacts, whereas its environmental impacts remain negative. This study also showed that local community stakeholders who live closer to a tourism region had different opinions than someone who lived further away from tourism activities.

Diedrich and Garcia (2009) showed that most residents of Belize recognize the good and bad changes that tourism brings and yet only a small proportion cite the bad changes. At the same time, they perceived the level of tourism as “adequate” or “too low”. From a social viewpoint, residents may recognize that tourism increases serious crime (Diedrich & Garcia, 2009). One of the aspects most valued by residents of this impact is the generation of employment opportunities (Diedrich & Garcia, 2009). This discrepancy in results may be attributed to the population characteristics unique to all the places where the studies are conducted. In other words, not all the communities at destinations will detect all types of impacts, or at least not with the same intensity. Tosun (2002) notes that while positive attitudes can be explained by the benefits derived from the industry, they themselves provide no explanations about the perceived negative impacts of tourism development. The attitude that residents have toward tourism impacts will be determined by the particular characteristics of the destination (Tosun, 2002). It seems that the impacts of tourism on communities are highly localized in time and place.

Nicholas, L., Thapa, B., & Jae Ko, Y. (2009) study examined the factors that influence local community residents’ of St.Lucia support for the Pitons Management Area (PMA) as a World Heritage Site and their support for Sustainable Tourism Development. Results of a structural equation modeling analysis using 319 resident samples suggested that Community Attachment positively influences their support behaviors, and Environmental Attitudes indirectly influence the support behaviors through Perceptions about PMA. Level of Involvement in the PMA was not found to have any significant relationships.

Abdool (2002) study addressed the issue of residents’ perception of tourism in Islands developing states and sought to compare resident’s support for tourism between a mature destination of Barbados and a less developed destination of Tobago. This was achieved using a linear model, based on previous work by Jurowski et al (1997). Another objective was to compare the findings with those of a previous study conducted in 1990s. The findings suggest that there is widespread support for tourism development in both communities despite their varying levels of tourism sophistication and residents’ perceptions of negative consequences of tourism. This apparent paradox was explained by Social Exchange Theory. Key variables which influence support for tourism were found to be personal and community benefits, socio-environmental impacts and community attachment. A proposed Caribbean Tourism Support Model was found to be more applicable in the Barbados context and this may suggest that several other factors influence tourism support in emerging destinations such as Tobago.

Waterman (2009) research discusses the negative social, environmental and economic impacts of tourism development in Barbados; describes the perceptions of residents and tourists to such; and measures their preferences for environmental management changes using the island’s lone marine reserve, the Folkestone Marine Reserve, as a case study. The research outcomes demonstrated that environmental management within the context of tourism development in Barbados requires the balancing of public needs with the environmental and economic consequences of development. As such, the results reinforced some of the theoretical and empirical revelations in the field of tourism and environmental management and further cemented the assertion that environmental management becomes onerous because of the presence of a number of innately complex and interlinked inferences: that preserving an environment that satisfies the divergent needs of users incurs both social and economic costs; that perceptions of tourism’s impacts are not mutually exclusive, which makes the issue of support for tourism development complex; that both the positive and negative impacts of tourism should be considered; that prudent environmental management is arguably the sine qua non for a viable tourism product; and that concerns remain as to whether the country can absorb the environmental and socio-economic shocks associated with tourism development.

Brida et al. (2011) completed a study of residents’ perceptions of cruise tourism on the Islands off Columbia. They analyzed how the local population perceives the impacts of cruise tourism and which factors do affect the relationship between impacts and perceptions’ formation. The research involves primary data collection in Cartagena de Indias during the peak of the cruise season in the last trimester of 2009. The number and quality of the 1,004 questionnaires collected allowed them to perform a quantitative analysis of the hosts’ perceptions and attitudes. A cluster analysis demonstrated the existence of four different groups, within which members have common features and similar perceptions and attitudes. ANOVA tests found that respondents differ significantly in their level of agreement with some survey items (p-value less than 0.05). In general, it has revealed a positive recognition of the economic impacts of tourism. Also, social and cultural impacts were recognized to be positive, but at a lower degree. In terms of future tourism polices, the different groups identified in the cluster analysis exert different positions.

Jordan (2014) surveyed 363 residents of
Falmouth, Jamaica where a new cruise port was recently developed that serves some of the largest cruise ships in the world several days each week. The results showed seventy-eight percent (78%) of surveyed Falmouth residents experienced stress from the development and operation of the new cruise port. Residents indicated unmet expectations, overtaxed infrastructure and crowding, increased cost of living, pollution, and police harassment were major causes of stress. Stressors were inter-related with each other and exacerbated daily hassles already faced by Falmouth residents. Research findings indicate stress and coping is a suitable framework from which to examine how individuals respond to tourism development.

Greening (2014) highlights community perceptions of ecotourism and held values for sea turtles and explains the emergence of these perceptions within two villages on the Caribbean island of St. Kitts. Data were collected through face-to-face community surveys, key-informant interviews, and participant observation during the summer of 2012. The field data revealed that community members did not perceive ecotourism to be widely beneficial, but instead viewed the government, people who work in the tourism industry, and tourists themselves to benefit from ecotourism practices. Further, community members perceived ecotourism as negatively affecting poor people, people who do not work in the tourism industry, and the environment. These perceptions of who or what is affected by ecotourism development were traced back through centuries of political-ecological processes on St. Kitts that have mediated local people’s relationship with their land and resources, as well as their relationships with each other. The results of this research suggest a focus on the role of ecotourism in amending the persistent marginalization of local people from their resources by applying a participatory development approach to ecotourism development through collaboration with existing community groups and social networks.

Laville-Wilson (2017) study of St. Kitts/Nevis residents investigated if citizens’ perceptions of the economic, socio-cultural, environmental and community impacts of tourism development vary by demographic factors such as age, education, gender and geographical location in relation to tourist areas. Nineteen research hypotheses were proposed: sixteen relating to the tourism impacts, two relating to social exchange theory and one relating to distributive justice theory. In order to explore the research question and test the hypotheses, a 108 item questionnaire was administered to citizens in the Federation of St. Kitts and Nevis located in the Caribbean (N = 452). Analyses were performed using Bivariate Correlations, One-way ANOVA and Independent-Samples t-Test. Findings from the bivariate analyses showed that there is a moderate relationship between the economic, sociocultural, environmental and community impact indexes. The indexes measuring social exchange theory and distributive justice also showed moderate relationships with the work in the tourism industry (independent) variable. Results from several one-way ANOVA and independent samples t-Test showed that while most citizens’ were not concerned with the impacts of tourism, they were concerned with the personal, economic and fairness of rewards/benefits associated with tourism industry.

IV. METHODOLOGY

This study empirically investigated local residents’ attitude toward the impact of tourism development. Self-administered survey was used in this study for data collection. Data was collected from the local communities in St. Kitts and Nevis Islands from the period of December 2013 to January 2015. After data cleaning, 323 useable responses were used for data analysis. The following section introduces the detailed steps undertaken for the survey development.

The questionnaire is divided into two sections. The first section of the questionnaire is designed to collect information on residents’ perceptions on the tourism impact. The questionnaire is classified into economic, socio cultural, environmental and overall impact perceptions, which contain twelve, ten, nine and seven items respectively. The second section of the questionnaire is to collect respondents’ socio-demographic information (such as gender, age, education, employment) and characteristics associated with film induced tourism. The respondents were asked to mark the statement on a five point Likert scale, starting from “1 = Strongly Disagree” to “5 = Strongly Agree”. This is to gain information in a more accurate manner from the respondents.

As discussed earlier, four different perceptions were collected. They are: Economic Perception (EP), Socio Cultural Perception (SCP), Environmental Perception (EnP), and Overall Perception (OP). In the study, data were analyzed in three stages. First, the descriptive statistics showed us an overall status of residents’ perceptions and the demographics. Second, T-test and ANOVA were used to specify the country differences, gender differences, and education level differences in residents’ perceptions. Lastly, multiple regression method was employed to identify what factors were related to overall perception.

V. RESULTS

Descriptive statistics are provided in Table 2. Sixty-five percent (N=210) of the respondents are female, only thirty-five of them (N=113) are male. About sixty-four percent of the respondents were born in St. Kitts and the rest of them were born in Nevis. Majority of the respondents were between 18 and 24
years old (41.5%), the second largest age group is between 45 and 54 years old (20.4%). As for the education level, one third (31%) of the respondents have a high school degree, one third of them have a bachelor’s degree or some college level certificates, fifteen percent of them have a graduate degree, and about twenty percent of them answered “other” which suggested that they don’t have a degree. The income level was also collected in the survey, half of the respondents’ annual household income was less than $50,000, twenty percent of them have an annual household income that is higher than $50,000 but less than $100,000, and twenty-three percent of them have an annual household income that is higher than $100,000.

Standardized difference in fit value (SDF), standardized difference in beta value (SDB), Cook’s distances, and casewise analysis were conducted to detect outliers in the data. After deleting outliers, skewness and kurtosis on each variable ranged from -0.06 to -0.76, indicating the normality assumptions for both data sets were met. Besides, Linearity and multicollinearity (tolerance value and variance inflation factor) assumptions were all met.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Levels</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Males</td>
<td>113</td>
<td>35.0</td>
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<tr>
<td></td>
<td>Females</td>
<td>210</td>
<td>65.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>323</td>
<td>100.0</td>
</tr>
<tr>
<td>Country</td>
<td>St. Kitts</td>
<td>208</td>
<td>64.4</td>
</tr>
<tr>
<td></td>
<td>Nevis</td>
<td>115</td>
<td>35.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td>100.0</td>
</tr>
<tr>
<td>Age</td>
<td>&lt;18 years</td>
<td>6</td>
<td>1.9</td>
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<tr>
<td></td>
<td>18 - 24 years</td>
<td>134</td>
<td>41.5</td>
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<td></td>
<td>25 – 34 years</td>
<td>52</td>
<td>16.1</td>
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<tr>
<td></td>
<td>35 - 44 years</td>
<td>39</td>
<td>12.1</td>
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<td></td>
<td>45 -54 years</td>
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<td></td>
<td>55 -64 years</td>
<td>21</td>
<td>6.5</td>
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<td></td>
<td>65 -74 years</td>
<td>3</td>
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<td></td>
<td>&gt;75 years</td>
<td>2</td>
<td>0.6</td>
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<td></td>
<td>Total</td>
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<td>100.0</td>
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<tr>
<td>Education Level</td>
<td>High School</td>
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<td></td>
<td>Some College</td>
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<td>Bachelor’s Degree</td>
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<td>Graduate Degree</td>
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<td></td>
<td>Others</td>
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<td>19.5</td>
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<td>Total</td>
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<td>100.0</td>
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<tr>
<td>Income Level</td>
<td>Less than $50,000</td>
<td>162</td>
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<td></td>
<td>$50,001 to $99,999</td>
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<td></td>
<td>More than $100,000</td>
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<tr>
<td></td>
<td>Total</td>
<td>323</td>
<td>100.0</td>
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</tbody>
</table>

To specify the gender differences and country differences in residents’ perception on tourism impact, T-tests were conducted between female and male, and between St. Kitts and Nevis and the significant results are shown in Table 3. The results indicated that there were significant mean differences between male and female. Male residents perceived higher economic impact than female residents did: 3.27 versus 3.23, F (1, 321) =4.358, p< 0.05; but they perceived lower social-culture impact:3.63 versus 3.87,F (1, 321) =14.343,p< 0.001; and lower environmental impact:3.19 versus 3.26,F (1, 321) =4.187, p< 0.05; and lower overall impact:3.25 versus 3.36,F (1, 321) =5.357, p< 0.05. There were no significant mean differences between St. Kitts and Nevis on economic impact, environmental impact and overall impact, but residents of St. Kitts perceived higher social-culture impact than residents of Nevis, 3.92 versus 3.70, F (1, 321) =9.181, p< 0.01.

To identify what factors were related to residents’ perception of overall impact, a multiple regression method was employed. Dependent variable was overall impact. Independent variables were economic impact, social-culture impact and environmental impact. Stepwise regression was used in the study to rank the importance of all factors on overall impact. Stepwise regression was chosen because of its statistically significant. This is an automatic procedure for statistical model selection in cases where there are a large number of potential explanatory variables, and no underlying theory on which to base the model selection. This is a variation on forward selection. At each stage in the process, after a new variable is added, a test is made to check if some variables can be deleted without appreciably increasing the residual sum of squares (Efroymson, 1960).The results are shown in Table 4.
A regression model consisting of economic impact and environmental impact significantly predicted the overall impact perceived by island residents. The stepwise solution indicated that EP (p<.001), and EnP(p<.001) contributed to the prediction of overall impact: R2=0.378, R2adj=0.373, F (2, 320) =25.624, p<.001. Both predictors were positively correlated to the overall impact.

The regression equation was:

$$Y_{\text{overall impact}} = 1.770 + 0.249 \text{ Economic Impact} + 0.268 \text{ Environmental Impact}$$

### VI. DISCUSSION AND CONCLUSION

Tourism is an important contributor to employment and economic growth in St. Kitts and Nevis. It plays a role in the development of less well-developed and rural areas in the country and in promoting the image and perception of the country externally. Tourist arrivals are still recovering from the sharp decline during the global financial crisis. Notwithstanding the upward trend, stay-over tourist arrivals have not returned to the peak levels before the crisis and suffered more compared to the Eastern Caribbean Community Union (ECCU) average, suggesting increased competition from other destinations in the region. Cruise-ship tourist arrivals in St.Kitts/Nevis, on the other hand, have grown almost four-fold since 2007, and have been over performing the ECCU average. The strong rise in cruise-ship arrivals underpinned an improved performance in tourism activity in 2015 for St.Kitts/Nevis. Despite the strong growth in cruise-ship tourist arrivals, total visitor expenditure in percent of GDP is still below its peak in 2005 and the current ECCU average. The slow recovery in total visitor expenditure may reflect the smaller contribution of overall spending by cruise-ship passengers, compared with stayover tourists. The slow recovery may also reflect the increased contribution of other sectors to economic activity including the construction sector, which has grown rapidly since 2013. St. Kitts and Nevis has been an attractive destination for cruise-ship tourists in the past few years. Ranked as the top destination in the ECCU region in 2014-2015, it hosted, on average, 30 percent of all cruise-ship tourists visiting one of the ECCU member countries, up from around 10 percent in 2007. New investment decisions in St. Kitts and Nevis are also supporting cruise-ship tourism. A new pier project, which will be able to host larger cruise ships, is expected to be completed by the end of 2017, after which tourist arrivals are expected to grow even faster. This signify the growing importance of tourism to the St.Kitts/Nevis economy.

Data from 360 St. Kitts and Nevis residents’ personal opinions of tourism on the islands, as well as positive and negative impacts, were analyzed. Four different perceptions were collected. They are: Economic Perception (EP), Socio Cultural Perception (SCP), Environmental Perception (EnP) and Overall Perception (OP). Survey analysis data indicate that the attitudes of residents in St. Kitts and Nevis toward a tourism boom that is altering the way of life of its residents varies by gender in regards to economic impact, social-culture impact, environmental impact and overall impact. Only one factor, socio-culture impact differed between the two islands.

Economic impact and environmental impact are determining factors of overall impact. These results are consistent with many previous studies (Murphy, 1985; Gunn, 1988; Gee, Mackens & Choy, 1989; McIntosh & Goeldner, 1990; Gursoy et al., 2002; Vargas Sanchés et al., 2007). Male residents perceived higher economic impact than female residents. Cultural factors influencing males as the primary income source compared to females who are more likely engaged in home and community may contribute to this perception. As noted earlier, tourism is one of St. Kitts’ largest economic sectors, accounting for up to 30% of GDP however, how much of St. Kitts’ tourism revenues actually accrue to Kittitians (and remains on-island) is not definitively known but experts have said that 15-20% of the tourist dollar spent remain in St.Kitts/Nevis. Many countries, particularly in the Caribbean, are faced with the problem of “leakage”. That is to say, tourist expenditure that does not actually occur on island or is subsequently transferred off island in the form of repatriated earnings by foreign firms or workers. For example, a substantial amount of a visitor’s vacation budget is often spent before that visitor even arrives on island on items such as airline tickets or all-inclusive packages. Estimated leakage rates for the Caribbean amount to 80% meaning only 20% of tourist expenditure remains on island. This leakage rate is far higher than other destinations like Kenya at 25% or India at 40%, (WTTC). It is clear that the leakage rate for St.Kitts/Nevis need improvement especially since there is renewed focus on tourism development. The means by which it can be minimized are well known. Generally speaking, tourism sectors with high rates of local ownership and strong value chain linkages within the sector and across other industries tend to have lower levels of leakage. In other words, the more products and services that can be provided by local resident suppliers, the lower the leakage rate.

Female resident attitudes reflect less dependence on the economic benefits of tourism and more toward the sustainable socio-culture and

### Table 4. Regression Analysis Summary

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Impact</td>
<td>0.249</td>
<td>0.067</td>
<td>0.202</td>
<td>3.735***</td>
<td></td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>0.268</td>
<td>0.056</td>
<td>0.260</td>
<td>4.806***</td>
<td></td>
</tr>
</tbody>
</table>

***p<0.001

For St.Kitts/Nevis econ my.
environmental impact that affects the family and its relationship to the community rather than the specific tourism dependent income. With just 68 square miles of land mass, environmental considerations must be taken into account at every juncture of the strategic planning process. For example, should growth be driven by increased arrivals to the island or should the strategy focus on increasing tourist expenditure per day. The good news for St-Kitts/Nevis is that the goal of economic development is closely aligned with the goal of environmental conservation. The challenge is that a failure to effectively safeguard the environment puts the natural resources of the island and the growth of the industry at risk.

Male income dependency may influence the attitude of male residents who perceived lower social-culture impact and lower environmental impact than female residents. While there were no significant mean differences between St. Kitts and Nevis on economic impact, environmental impact and overall impact, residents of St. Kitts perceived higher social-culture impact than residents of Nevis. While there is no data in the study to confirm a relationship, the more dense population of St. Kitts may influence this perception. The survey data support previous studies cited that confirm the attitudinal impacts and variations toward each factor for the introduction of increased tourist activity that impacts St. Kitts/Nevis. Recognition may be a catalyst to mitigating negative impacts and supporting positive impacts when managing tourism development for these beautiful islands.

VI. REFERENCES

101. World Travel & Tourism Council (WTTC) (2016)