# Local communities' quality of life and support for tourism development: A structural equation analysis

Idowu O. Kolawole, <sup>1</sup>Joseph E. Mbaiwa,<sup>2</sup> Gagoitseope Mmopelwa<sup>3</sup> and Donald L. Kgathi<sup>4</sup>

# Abstract

This study investigates the relationship between the people's quality of life and support for tourism in Maun, Botswana. Data were collected from 394 residents in Maun through face-toface survey interviews. The data were analyzed using structural equation modeling with AMOS 16.0 software. The study found a positive relationship between people's quality of life and support for tourism. The results support the conceptual theory of the study which is the social exchange theory. The study therefore concludes that the more the communities perceive their quality of life being improved due to tourism development, the more they would support the development of tourism in their community. The implication of this study is that the sustainability of tourism in Maun is highly dependent on the improved quality of life of members of local communities.

Keywords: Quality of life, support for tourism development, community, structural equation modelling, Botswana

<sup>1</sup> PhD Candidate, Okavango Research Institute, University of Botswana. Email: <u>kolawoleid@gmail.com</u>

<sup>&</sup>lt;sup>2</sup>Professor & Director, Okavango Research Institute, University of Botswana

<sup>&</sup>lt;sup>3</sup> Associate Professor, Department of Environment Science, University of Botswana.

<sup>&</sup>lt;sup>4</sup>Professor, Okavango Research Institute, University of Botswana.

#### Introduction

Despite global economic and geopolitical challenges, international tourism arrivals have grown beyond expectations and long-term forecasts (UNWTO, 2018, 2013). The unexpected high volume receipts were due to a sustained increase in the demand for goods and services within the tourism industry in 2013 (UNWTO, 2013). Among the regions that showed the strongest demand for tourism goods was Africa (+6%) followed by Europe with (+5%) (UNWTO, 2013). Africa successfully attracted three million additional arrivals of 56 million in 2013 (UNWTO, 2013). The increasing trends of arrivals and receipts, according to intercontinental reports such as WTTC (2014) and UNWTO (2018, 2013), confirm the positive performance of the industry. The increase was partly due to sustained growth in sub-Saharan Africa (UNWTO, 2013). Considering the aggressive movement of people around the world, various economies are currently using the industry to diversify their economies to create additional jobs, reduce unemployment, generate income, boost local economies and earn more foreign exchange to correct trade imbalances. Based on the diversification effort by various governments, the tourism industry accounted for a significant portion of the gross domestic product in various economies in Africa, including Botswana. In 2012, the percentage share of the tourism sector's 4.7% direct contribution to employment in Botswana was higher than the majority of its competitors in Africa, including Namibia at 4.6%, South Africa at 4.6%, Madagascar at 4.5%, Kenya at 4.3% and Angola at 1.4% (UNWTO, 2013). In 2013, the percentage share of direct contribution of tourism to the gross domestic product was 3.2%, a slight increase of 0.2% from 3.0% in 2012. More so, while there was a decrease of 0.1 % in the percentage share of the tourism sector's direct contribution to employment in 2013, its total contribution to capital investment increased from 6.3% in 2012 to 7.6% in 2013 (WTTC, 2014).

Based on the performance of the industry, tourism has become a major economic activity (Eraqi, 2007; Tichaawa and Mhlanga, 2015) and one of the largest generators of employment in the world. The industry has also become a fast entry vehicle into the workforce for young people in urban and rural areas. Also, investment in tourism has translated into foreign exchange earnings for many economies. The industry also has a strong multiplier effect on other crucial sectors of the economy like manufacturing and agriculture (UNWTO, 2009). The emergence of the industry as one of the significant contributors to economic growth and regional development has convinced many countries to reallocate resources to develop and improve tourism activities. According to Sinclair (1998) and Mbaiwa (2004), airports, local transportation infrastructure and hotels have been built to attract international tourists. Despite the accrued benefits due to tourism development in many countries, it is evident that this development also impacts negatively on the lives of the people in the destination community (Landford and Howard, 1994; Mbaiwa, 2003). Therefore, the perceptions on the impacts of tourism can either be positive or negative (Kala, 2008; Wang, Bickle and Harrill, 2010; Chandralal, 2010; Yu, Chancellor and Cole, 2011; Nejati, Mohamed and Omar, 2014).

Many researchers from various disciplines have studied the impacts of the tourism sector on the people's quality of life with a focus on sustainable tourism development (Kim, 2002). However, due to limited research in this area in Botswana, this study examines the relationship between people's quality of life and support for tourism developments in Maun, Botswana. The study relies on a subjective approach to investigate the relationship between people's quality of life and support for tourism development. Unlike the indicators of objective wellbeing that rely

on secondary sources of information, subjective indicators are based on the information collected from personal survey through interviews (Massam, 2002). This study utilizes the social exchange theory (SET) as its conceptual framework. The contemporary social exchange theory is associated with the work of Adam Smith (see Cropanzano and Mitshell, 2013). Homan (1961) defined social exchange as the exchange of tangible or intangible resources between two parties; and these have benefit or cost. Furthermore, Ap (1992) argued that the SET assumes that social relations involve an exchange of resources among individuals or group of individuals seeking mutual benefits from the exchange relationship. The theory explains social relations in terms of the exchange of resources among individuals or groups of individuals wanting mutual benefits from the exchange relationship (Ap, 1992). The theory is appropriate for this study in that the development of tourism in any community is dependent on the perceptions of the local people in terms of the benefits that accrue to individual members and the whole community (Soontayatron, 2013; Nkemngu, 2015). In Botswana, there are few studies that focus on how people's quality of life can influence their support for tourism development. Therefore, in order to close this gap, this study developed a model of quality of life and support for tourism development to examine people's perceptions of the development of tourism and its sustainability in Botswana.

This article has five sections. The first section is the introduction to the study. The section briefly reviews literature on the arrival of tourists, and contributions of the tourism industry to selected economies in Africa, including Botswana. The conceptual framework was also introduced in this section. In the second and third sections, the literature related to the relationship between support for tourism and quality of life of destination communities was reviewed. The methodology, including the development of the survey instrument, sampling procedure and data analysis are discussed in the fourth section. In section five, results of the study were presented. The discussion and conclusion were presented in the final section of the paper.

# Support for tourism development

The total acceptability of and support for the development of tourism activities in an area is dependent on the perceptions and attitudes of the local people (Eraqi. 2007; Stylisdis, 2012). Jurowski (1994) further argues that sustainability within the tourism industry needs people's support. Yoon, Gursoy and Chen (2000) have also indicated that tourism development is highly dependent on the goodwill of the local residents. Without the residents' acceptance of the development in the destination areas, there can be no profitable and successful tourism operations. Many studies have examined residents' perceptions and attitudes toward tourism in various destination areas (e.g. Stylisdis, 2012; Aref, 2011; Dyer, Gursoy, Sharma and Carter, 2007; Lee and Back, 2006; Kim, 2002). Despite mixed findings in the literature, it is established that there is a relationship between how tourism impacts, people's quality of life and support for tourism. Conducting their studies in Greece, Iran and the USA respectively, Stylisdis (2012), Aref (2011) and Kim (2002) are of the view that support for tourism is a function of the people's quality of life in any destination area. For example, if tourism activities translate into a deteriorating quality of life in the destination area, the people tend not to support tourism development in their community. In contrast, people naturally support tourism activities that improve their quality of life.

According to Aref (2011), quality of life can be categorized into five domains; material wellbeing, community wellbeing, emotional wellbeing and health and safety wellbeing. The study established the strongest link between emotional wellbeing and community wellbeing. The

findings show that tourism has positive effects on the quality of life of residents of the tourism destinations. Dyer et al (2007) also examined the relationship between five factors including negative socio-economic impact, positive economic impact, positive social impact, negative social impact and positive cultural impacts in the Sunshine Coast of Australia; and resident support for tourism development. The study revealed that perceived economic benefits and perceived cultural benefits had significant positive impact on local residents' support for tourism development.

In a similar study, Lankford and Howard (1994) had earlier developed a multiple-item attitudinal scale to assess the effects of selected independent variables on attitudes towards tourism development within the Columbia River Gorge. While the respondents who felt economically dependent on tourism had generally positive perceptions of tourism, those who felt they had to compete with tourists in accessing recreational facilities had antagonistic perceptions of tourism development in their community (Lankford and Howard, 1994). In the United States, Jackson (2008) also explored residents' perceptions of special event tourism at Daytona Beach area in Florida. Although, the study revealed that residents' attitudes were positive towards the development of tourism, the majority of the residents supported events that contributed socially and economically to their community. Residents were even willing to tolerate the associated negative impacts of the event as long as the perceived benefits exceeded the negative impacts brought about by these events. In the majority of the studies on tourism impacts (Stylisdis, 2012; Aref, 2011; Dyer et al, 2007; Lee and Back, 2006; Kim, 2002), quality of life and support for tourism development were closely related. Generally those who receive direct benefits from tourism are likely to view tourism positively and are less likely to attribute negative social and environmental impacts to its development.

# **Measuring Quality of Life**

Investigating the quality of life of a person is the determination of the well-being of that individual. The study of quality of life can either be based on an objective or subjective perspective that shows individual feelings and perceptions (Yu, Chancellor and Cole, 2011). While the former relates to external conditions that kick-start the internal mechanism, the latter is concerned with the internal psychological mechanisms such as a sense of satisfaction with life (see Massam, 2002). Sirgy (1998) also notes that the overall life satisfaction is partly determined by the standard of living. It is noted that tourism can only lead to an improved standard of living and a feeling of satisfaction if the development has brought enough benefits to the people without destroying the local environment. Jackson (2008) contends that one way to minimize the negative impacts of tourism development is to monitor residents' opinions of the perceived impacts of tourism. This is involves incorporating community reaction into tourism planning and development.

This study therefore uses perceived life satisfaction to study the relationship between people's quality of life and their support for tourism development using subjective measurements. According to Dissart and Deller (2000), subjective measurements are critical for the accurate evaluation of the quality of life of a community. The items used to measure the observable variables were modified from the works of such authors as Cummins, Mcabe, Romeo and Gullone, (1994), Cummins (1996), Sirgy, (1998), Perdue, Long, and Allen (1999), Kim (2002), Rojas (2007), Avgoustis, Cecil, Fu and Wang (2005), Mc Gregor, Camfield and Woodcock (2009), Eckersley (2009), Drewnowski (1980) and Lioa, Fu and Yi (2005). The use of both the overall and life domain measures of quality of life have been shown to have a high

correlation and validity and are therefore better analytical tools (Kim, 2002). With the consideration of the underpinning theory of social exchange which advocates that people will only be interested to exchange their resources with tourists if there are benefits in doing that, this study tested a hypothesis as illustrated in Figure 1 below. The hypothesis for this study is stated as follows:

There is a significant positive relationship between people's quality of life and support for tourism development.



Figure 1: The model for people's quality of life and support for tourism development

However, the relationship between quality of life and , which is a function of tourism impacts, and support for tourism has not been studied in Botswana, so this study fills this gap. Residents' perception of tourism impacts constitutes an important input into planning tourism activities to maximizing the benefits and mitigate negative impacts from the development at the destination.

# Methods The study area

This study was conducted in Maun in Botswana. The village of Maun is located about 1000 kilometres away from the capital city of Botswana. Maun is located in the north-western of Botswana and the headquarters of the northwest district. It has a population of 55, 784 (Statistics Botswana, 2011). Maun is an urban village (Stone, 2014). In the village, there are River people who are the original inhabitants of Maun namely the Banoka, Basubiya, Bakgalagadi, the Hambukushu, Bayei and Baherero (Botswana Tourism Organisation, 2009).

Maun is a tourist centre and port of entry into the Okavango Delta. Despite the distance of the village from Gaborone, the capital city of Botswana, both the local people and international tourists prefer to travel to Maun for various reasons, including for tourism activities within the village and in the surroundings. Maun was chosen as a study site due to its unique features and attractive qualities, when compared to other villages in Botswana.

#### Development of survey instruments

The primary data for this study were collected from Maun using a face-to-face interview questionnaire. The development and inclusion of items used to measure the observable variables were based on the studies such as Ap (1992), Ko and Stewart (2002), Yoon et al. (2000), Akarapong, Mingsarn, Vicente, Korawanand and Javier (2010), Mbaiwa (2008) and Kim (2002). While the perception of the Maun community's quality of life were measured using 13 items, 16 items were used to measure support for tourism development; in total 29 items were used for the two latent variables as shown in Tables 1 and 2. A five-point Likert scale was used

for the analysis of the data. For example, the response format for the items with assigned values ranged from 1 to 5, and was used to assess people's quality of life and support for additional tourism development where strongly disagree (SD) = 1, disagree (D) = 2, neutral (N) = 3, agree (A) = 4 and strongly agree (SA) = 5. Demographic information of the participants was elicited in the final part of the questionnaire. The survey questionnaires were piloted among 50 higher education students who originated from and were still resident in Maun at the time of the study. The information collected through the pilot study and experts' comments on the instrument were used to improve content validity and effectiveness of the data collection instrument (Nimako, Azumah, Donkor and Adu-Brobbey, 2012).

# Sampling procedure and data collection

This study used Enumeration Areas (EAs) created by the Department of Census and Surveys of the Ministry of Finance, Development and Planning for the 2011 census in Botswana. Based on the population of the village, the sampling size of 378 was scientifically determined based on Krejcie and Morgan (1970). Maun is divided into 109 Enumeration Areas (EAs) (Statistics Botswana, 2011). The number of households in each of the EAs ranges from 120 to 150 (Statistics Botswana, 2011). The EAs were created for the enumerators for easy head counts during the population census of 2011. Out of 109 EAs, 15 EAs were selected using probability proportional to size (PPS). PPS is a system of sampling in which the probability of selecting a sampling unit is proportional to the size of its population. It is a systematic sampling method where elements are picked using a systematic interval (*i*th) after which the first EAs is randomly selected (Blalock, 1981). The method is appropriate when the sampling units vary in sizes.

The use of PPS guarantees that those all units have the same probability of being selected. In addition, a proportionate stratified method was used to select the proposed number of households within an EA. By using a proportionate stratified method, the number of households selected in each of the EAs is proportional to the number of households in the representative EAs. Blalock (1981) maintains that it is appropriate to use proportional stratified sampling when the strata are homogeneous, because it guarantees a more representative sample, as well as correct and reliable results. In order to allow for the possibility of uncompleted questionnaires, 400 questionnaires were administered through face to face interviews. Although, the method is labour intensive and costly, it is best suited to collect high quality data in terms of certainty of the responses, convenience for the respondents, and the validity of the data collected can be verified at the time of the interview. The data were collected from participants who were 18 years or older and had been living in Maun for at least a year leading to the time of data collection. Of the 400 questionnaires, 394 questionnaires were completely filled up, translating to a 98.5% response rate.

#### Data analysis

The structural equation model (SEM) was used to analyse data. SEM is designed to simultaneously test for measurement model and structural model (Smith and Lang-Smith, 2004). The technique allows testing of hypotheses about relations among observed and latent variables. In addition, the SEM technique can perform an estimation of multiple and interrelated dependent relations among variables (Wijanto, 2008). The structural equation modelling is a comprehensive

testing system that is based on the explanatory power of the structural model, measurement model and overall model. According to Fornell and Larcker (1981), the use of the model shows whether the various measures within a study have satisfactory psychometric properties via convergent validity, average variance extracted and discriminant validity. The Structural Equation Modelling (SEM) as a tool of data analysis has gained popularity among behavioural scientists. They use it to test measurement and structural models in order to develop and validate theories in various fields of study, including tourism. The tool allows for the estimation of relationships among theoretically interesting constructs that are free of the effects of measurement unreliability (Raykov, Tomer and Nesselroade, 1991).

# Results

The analysis of demographic information indicates that 53% of females and 47% of males participated in this study. The results further indicate that the percentages of the age groups of the participants were as follows: 21-30 (40.4%), 31-40 (25.1%), and < 20 years of age were (12.2%). While the category age group between 51 and 60 was 5.6%, those that were more than 60 years of age at the time of data collection were only 2%. Regarding marital status, most of the participants were single (74.6%), followed by married (18.3%), widowed (2%) and only a few (1%) were divorced. The information on the educational level shows that most of the participants had only attained primary school level (57.4%). The proportions of participants who had attained vocational certificate and diploma were 16.2% and 15%, respectively. Only 7.1% of the participants had attained degree level education. While the results suggest that 80.7% of the respondents had been living in Maun for more than 5 years, a small proportion (15.2%) of the respondents had lived in village for less than 5 years. In terms of employment status, the majority (53%) of the respondents were unemployed, 26.9% were formally employed in various industries, while the remaining 16% were self-employed. A small percentage (31.4%) of the respondents was employed within the tourism industry while 68.6% was employed in other industries.

### **Results of measurement and structural models**

The data for this study were subjected to exploratory factor analysis (EFA) to measure the underlying structure among the variables. The EFA was carried out using principal component analysis as the extraction method and varimax as the rotation model (Dangadi, Bhusi, Bagodi and Sinha, 2016). This study follows the requirement suggested by Nunnally and Bernstem (1994) and Matsunaga (2010) that the acceptable values of Cronbach's alpha should be 0.50. Furthermore, the study used a cut-off factor loading of 0.5 and eigenvalue greater than or equal to 1 (Hair, Black Babin and Anderson, 2010). The factor loading were loaded beyond the threshold of 0.50 except for the item, 'our cultural products are known' with factor loading of .489 in Table 2. The items were retained because the Eugen value is more than 1 (Matsunaga, 2010).

The quality of life is affected by changes in various factors due to the development of tourism in Maun. The construct of people's quality of life was measured using four dimensional observable variables including economic well-being, social well-being, cultural well-being and

environmental well-being related items. The items used to measure the socio-cultural wellbeing were divided into two, a) social wellbeing comprising "satisfied with accessibility", "satisfied with local involvement", and "satisfied with social benefits"; and b) cultural wellbeing comprising "satisfied with tourists", "satisfied with culture" and "satisfied with preservation of culture". Furthermore, the construct of economic wellbeing was measured using "satisfied with the cost of living", "satisfied with family income", and satisfied with community benefits. Lastly, environmental wellbeing was measured using safety, health and conservation related items.

The items used to measure categories of wellbeing were loaded with "satisfied with the cost of living in my community" (.766), "satisfied with my family income" (.815), "satisfied with financial benefits accruing to my community" (.777), "satisfied with the accessibility to facilities built" (.649), "satisfied with local involvement in tourism activities" (.601), "satisfied with tourism social benefits (i.e., recreational opportunities)" (.647), "satisfied with numbers of tourists coming into my community" (.602), "satisfied with the way my culture is promoted" (.784), "satisfied with how culture is preserved in my community" (.729) and "satisfied with the level of safety in my community with value of" (.784) (see Table 1). The variance explained and Kaiser-Mayer-Olkin (KMO) values of 68.606 and .837 respectively show acceptable levels recommended by Musa and Kassim (2012). These authors indicate that the cut-off level for KMO should be greater than 0.8; however a value of 0.6 is also tolerable. The value of Chi-square of Batlett's test is 2797.457 at a significant level of .000. Also, the Eigen values of more than 1 are acceptable and the value of Cronbach alpha is 0.856, demonstrating the robustness of the results as shown on Table 1.

Quality of life variables	Factor Loading	Kaiser- Meyer Olkin (KMO)	Bartlet's test of Sphericity
Satisfied with the cost of living in my community	.766	.837	.000
Satisfied with my family income	.815		
Satisfied with financial benefits accruing to my community	.777		
Satisfied with the accessibility to facilities built	.649		
Satisfied with local involvement in tourism activities	.601		
Satisfied with tourism social benefits (i.e., recreational opportunities)	.647		
Satisfied with numbers of tourists coming into my community	.602		
Satisfied with the way my culture is promoted	.784		
Satisfied with how culture is preserved in my community	.729		
Satisfied with the level of safety in my community	.653		
Satisfied with the health of my environment	.767		
Satisfied with conservation of the environment in my community	.582		
Satisfied with the cleanliness in the community	.519		

# Table 1: Measuring people's quality of life

Eigenvalue =5.157; Percentage of Variance Explained = 36.837; Cumulative Variance Explained =68.606

Cronbach alpha =.856

The social exchange theory maintains that people are likely to participate in an exchange with tourists if they believe that they are likely to benefit from the tourism development without incurring unacceptable cost (Ap, 1992). Based on this, support for tourism development was measured using five observable variables. These variables include economically motivated support for tourism, socio-culturally motivated support for tourism, environmentally motivated support for tourism, level of involvement and community's hospitality. EFA was also conducted using principal component extraction with varimax rotation contained 16 items for support tourism construct to determine the unidimentionality of the items. The items used to measure the construct of support for tourism were loaded with "support tourism because it creates employment" (.710), "support tourism because it creates new businesses" (.808), "support tourism because it attracts investments" (.774), "support tourism due to increased standard of living" (.666), "support tourism because our cultural products are known" (.489), "support tourism because it makes my community come alive" (.707), "support tourism because our community is more attractive" (.830), "always happy to welcome tourists into our community" (.793), "support for tourism by my active participation" (.755), "support tourism due to development of new programs" (.753)and, "do not support tourism because of the pollution that it creates" (.643) as shown in Table 2. The accuracy of the factor analysis was determined using Kaiser-Meyer Olkin (KMO) and Bartlet's test of Sphericity. The results of KMO and Bartlett's test show that the use of the factor analysis was significant in that KMO sampling adequacy = .801, Chi-square of Batlett's test = 2797.457 and significant level = .000. In addition, reliability analysis was conducted using Cronbach's alpha to check the internal consistency of the items used to measure the construct. The value of alpha is 0.83.

Table 2: Measurin	g support for	tourism d	development	in the co	mmunity
	8 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °				

Support Tourism Development	Factor Loading	Kaiser- Meyer Olkin (KMO)	Bartlet's test of Sphericity
I support tourism because it creates employment	.710	.801	.000
I support tourism because it creates new businesses	.808		
I support tourism because it attracts investments	.774		
I support tourism due to increased standard of living	.666		
I support tourism because our cultural products are known	.489		
I support tourism because it makes my community come alive	.707		
I support tourism because it promotes cooperation among people	.682		
I support tourism due to preservation of our culture	.761		
I support tourism because it protects the natural environment	.610		
I support tourism because our community being more	.830		

attractive.	
I do not support tourism because of the pollution that it	.643
creates	
I support tourism due to development of new programmes,	.753
I show support for tourism by my active participation.	.755
I am proud of my input into the development of tourism	.742
I am always happy to welcome tourists into our	.793
community	
I enjoy interacting with tourists in my community	.799

Eigenvalue = 5.35; Percentage of Variance Explained = 33.45; Cumulative Variance Explained = 72.0; Cronbach alpha = 0.83

In order to authenticate the items, confirmatory factor analysis was also conducted in the case of the relationship between people's quality of life and support for tourism. While the overall fits of the measurement model for the quality of life were  $\chi^2_{(6)} = 6.509$  (p = 0.369); CFI = .999; and RMSEA = 0.015 support for tourism were  $\chi^2_{(6)}$  = 7.412 (p = 0.284); CFI = .998; and RMSEA = 0.024. Although the Chi-square revealed a non-significant trend in the predicted direction, the Incremental Fit (CFI) and Absolute Fit (RMSEA) indices met the thresholds of > 0.9 and < 0.08respectively (Chong, Zazim and Ahmed, 2014). Chi-square is the traditional fit index and it derives from the fit function  $[f_{ML}(N-1)]$ . However researchers must be cautious (see Hooper et al, 2010; Hooper et al, 2008; Bollen, 2002; Hu and Bentler, 1999 and Bagozzi and Yi, 1998) due to many factors, including sample size, model size, the distribution of variables, and omitted variables, that can affect the index. Hooper et al., (2008: 59) further reiterate that "Chi-square assumes multivariate normality and severe deviations from normality may result in model rejections even when the model is properly specified". Chi-square is sensitive to sample size, therefore it may lead to rejection of a model and may also not discriminate between good fitting models and poor fitting models when large and small samples sized are used respectively. Also Koubaa, Tabbane and Jallouli (2014) explain that the  $\chi^2$  test is not recommended with small or large samples. The authors further argue that trivial differences between the covariance matrix derived from the hypothesized and the sample become significant, leading to the rejection of the model. In addition, p-values have also been found not to be sufficient indicators of statistical significance; therefore, researchers must not be blinded by a lack of statistical significance in the description of an empirical pattern (Moen 2008). Hair et al., (2010) argue that the statistic test of p-value is less meaningful as sample sizes and the number of observed variable become large. Due to several limitations, Hooper et al., (2008) are of the view that Chi-square values must not be used solely as a measure of the goodness of fit. Chin, Peterson and Brown (2008) also reiterate that while there are many fit indices to evaluate a model, none of the indices can be used solely to determine the overall fitness of a model.

Based on the discussion above and on the results, the fit values (CFI = .998; and RMSEA = 0.024) met the minimum requirement, and thus it can be concluded that the fit is a good fit (Hooper et al. 2008; Yanamandram, 2006). The result of the structural relation between people's quality of life and support for tourism revealed that the estimated standardised coefficient for the path from the community's quality of life to support for tourism development is 0.37 (p<.001). The coefficient of determination between the community's quality of life and support for tourism

development is ( $R^2 = 0.75$ ). Thus, the regression result revealed that 75% of the support for tourism development was related to the community's quality of life. The result supports the proposed hypothesis and generates a significant level of *p*-value.

# **Discussion of the results**

The result of the structural equation modelling analysis indicated a significant positive relationship between the people's quality of life and support for tourism development in the community. The study shows that the community would support tourism if its development could improve the people's quality of life. The economic wellbeing, environmental wellbeing and socio-cultural wellbeing must be improved. For the economic wellbeing, it is apparent that the standard of living of local people in Maun can only be improved if the development of tourism could create lucrative jobs and avail business opportunities, and increase income and financial benefits to families and the community at large. This study also established that tourism preserves culture, brings pride to people and has led to cooperation among local people in Maun. Importantly, since the level of involvement of local people is one of the significant determinants of the support for tourism development, the community must be involved in the development of the tourism in Maun for the industry to grow. Environmental wellbeing is crucial to human life. This study recognizes pollution as a threat to people of Maun. For example, it is noted that emission of pollutants into air and water due to tourism development could lead to the deterioration of the health of local people. While the development of tourism (i.e., tourism related facilities) beautifies environment in Maun, this study has established the existence of pollutants such as solid waste that threaten to humans and the wildlife which attracts tourists to Maun and neighbouring villages in Ngamiland. Therefore, a reduction of different kinds of air and water pollutants could reduce the negative environmental impacts of tourism. For example, the tourism industry could be transformed into an environmentally friendly industry, where people are prepared to support tourism if the development of tourism is carefully managed (Abdoreza and Somayyeh, 2010).

The hypothesis supports the social exchange theory underpinning the study. According to the theory of social exchange, people will support the development of tourism in their area if the perceived benefits from the development of the tourism activities are more than the perceived costs to the community. The study shows that the more people perceived their quality of life as having been improved due to the development of tourism; the more they are likely to support the tourism in their community. The findings of this study are in line with the results of the early study by Yoon et al., (2000) where they argued that tourism stakeholders' preferences of tourism attractions or resources development are a function of perceived tourism impacts and place attachment. Tichaawa and Mhalanga (2015) also found that the perceptions of tourism impacts are positively related to a sense of satisfaction with community wellbeing. Communities that have positive perceptions of tourism impacts are likely to support additional tourism development in their community while those who have negative perceptions are not likely to support additional tourism development. Therefore, the results of this study confirmed the value of the social exchange theory (Stylisdis, 2012; Aref, 2011; Dyer et al. 2007; Lee and Back, 2006) in explaining the community's perceptions on the impacts of tourism in Maun. Importantly, the items loaded in each of the constructs were found to be significant determinants of the quality of life and support for tourism development.

# Conclusion

This study investigated the relationship between quality of life and support for tourism development in Maun. The costs and benefits as perceived by the people of Maun reportedly affect their decisions to support tourism development in their area. The study found a significant positive relationship between people's quality of life and support for tourism development in Maun. For tourism to develop in a tourism destination such as Maun, the community must be economically, socio-culturally and environmentally motivated to support such development. This study also validated the importance of the community's involvement and hospitality in the development of tourism. This study establishes that indicate that the sustainability of the tourism industry is dependent on the involvement of the local people in the development of the tourism in their areas. The study concludes that the support for tourism development is dependent on the perceptions of the local people on the tourism impacts and their quality of life (economic wellbeing, socio-cultural well-being and environmental well-being). The findings of this study can be used to improve strategies to develop sustainable tourism in Maun and elsewhere in Botswana. Tourism developers, including government authorities, regional or district councils, local authorities, non-governmental organisations and private investors, can use the findings of this study to intensify their efforts to educate communities on how tourism operations in their communities affects them, and on how tourism contributes to regional and national development. In addition to traditional campaigns of conservation and preservation of culture and environment respectively, the locals should also be actively involved in the development of tourism in their communities to achieve sustainability in this sector.

#### References

- Abdoreza, F. and Somayyeh, A. (2010). The relationship between tourism and environmental. *Iranian Journal of Tourism and Hospitality*, 1 (1), 37-48.
- Akarapong, U., Mingsarn, K., Vicente, R., Korawan, S. and Javier, R. (2010). Factors influencing local residents' support for tourism development: A structural equation model, *The APTA Conference* 2010 at Macau, China. July, 2010.
- Ap, J. (1992). Residents' perceptions on tourism impacts. Annals of Tourism Research, 19(4), 665–690.
- Aref, F. (2011). The effects of tourism on quality of life: A case study of Shiraz, Iran. *Life Science Journal*, 8 (2), 26-30.
- Avgoustis, S.H., Cecil, A.K., Fu, Y and Wang, S. (2005). Exploring a relationship between quality of life, enjoyment of cultural tourism and demography. *Tourism Today*, 5, 36-55.
- Bagozzi, R.P and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 074-094.

Blalock, H.M. (1981). Social Statistics. International Edition. London: McGraw-Hill

- Bollen, K. A. (2002). Latent variables in psychology and the social sciences. *Annual Review of Psychology*, 53, 605-34.
- Botswana Tourism Organization, (2009). *Travel Companion: Northern Botswana*, Botswana Tourism Organization, Gaborone.
- Chandralal, K.P.L. (2010). Impacts of tourism and community attitudes towards tourism: A case study in Sri Lanka. *South Asian Journal of Tourism and Heritage*, 3 (2), 41-49.
- Chin, W.W, Peterson, R.A & Brown, S.P (2008). Structural equation modeling in marketing: Some practical reminders. *Journal of Marketing Theory and Practice*. 26(4), 287-298.
- Chong, E.E., Zazim, A and Ahmad, S.B. (2014). A Comparison between individual confirmatory factor analysis and pooled confirmatory factor analysis: An analysis of library service quality-- a case study at a public university in Terengganu. *International Journal of Engineering Science and Innovative Technology (IJESIT)*, 3(1), 110-116.
- Cropanzano, R., and Mitchell, M. (2005). Social exchange theory: An interdisplinary review. *Journal of Management*, 31(6), 874-900.
- Cummins, R.A. (1996). The Domains of life satisfaction: An attempt to order chaos. *Social Indicators Research*, 38(3), 303-328.
- Cummins, R.A., Mcabe, M.P., Romeo, Y. and Gullone, E. (1994). The Comprehensive quality of life scale: Instrument development and psychometric evaluation on tertiary staff and students. *Educational and Psychological Measurement*, 54, 372-382.
- Dandagi, S., Bhusi, U., Bagodi, V and Sinha, D. (2016). Strategic management of technical university: Structural equation modelling approach. *Journal of Modelling in Marketing*, 11(1), 75-90.
- Dissart, J.C. and Deller, S.C. (2000). Quality of life in the planning literature. *Journal of Planning Literature*, 15 (1), 135-161.
- Drewnowski, J. (1980). Social Indicators, quality of life and economic theory: A suggestion for establishing a theoretical basis for social indicators and quality of life research. *Philosophica*, 25 (1), 15-22.
- Dyer, P., Gursoy, D., Sharma, B and Carter, J. (2007). Structural modelling of resident perceptions of tourism and associated development on the Sunshine Coast, Australia. *Tourism Management*, 28, 409-422.
- Eckersley, R. (2009). Population Measures of Subjective Wellbeing: How useful are they? *Social Indicators Research*, 94 (1), 1-22.
- Eraqi, M.I. (2007). Local Communities' attitudes towards impacts of tourism development in Egypt. *Tourism Analysis*, 12, 191-200.

- Fornell, C and Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
- Hair, J.F. Jr. Black, W. C., Babin, B. J and Anderson, R. E. (2010). *Multivariate data analysis*, 7<sup>th</sup>Macmillan, New York.
- Homans, G. C. (1961). *Social behavior and its elementary forms*. New York: Harcourt, Brace and World.
- Hooper, D., Coughlan, J. and Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *The Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hu, L and Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1-55.
- Jackson, L.A. (2008). Residents' perceptions of the impacts of special event tourism. *Journal of Place Management and Development*, 1(3), 240-255.
- Jurowski, C. (1994). The interplay of elements affecting host community residents attitudes toward tourism: A path analytic approach. PhD thesis. Virginia Polytechnic Institute and State University. Blacksburg, VA.
- Kala, N. (2008). Host perception of heritage tourism impact with special reference to the City of Jaipur. *South Asian Journal of Tourism and Heritage*, 1(1), 65-74.
- Kim, K. (2002). The effects of tourism impacts upon quality of life of residents in the community. PhD thesis. Virginia Polytechnic Institute and State University.
- Ko, Dong-Wan and Stewart, W.P. (2002). A structural equation model of residents' attitudes for tourism development. *Tourism Management*, 23, 521-530.
- Koubaa, Y., Tabbane, R.S & Jallouli, R.C. (2014). On the use of structural equation modelling in marketing image research. Asia Pacific Journal of Marketing and Logistics, 26(2), 315-338.
- Moem, J. M. (2008). The reporting of statistics significance in scientific journals. *Demographic Research*, 18(15), 437-443.
- Krejcie, R.V and Morgan, D.W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Lankford, S.V. and Howard, D. R. (1994). Developing a tourism impact attitude scale. *Annals of Tourism Research*, 21(1), 121-139.
- Lee, C. and Back, K. (2006). Examining structural relationships among perceived impact, benefit and support for casino development based on 4 years longitudinal data. *Tourism Management*, 4 (4), 327-339.

- Liao, P., Fu, Y and Yi, C. (2005). Perceived quality of life in Taiwan and Hong Kong: A cultural comparison. *Journal of Happiness Studies*, 6, 43-67.
- Massam, B.H. (2002). Quality of life: Public planning and private living. *Progress in Planning*, 58, 141-227.
- Matsunaga, M. (2010). How to factor-analyse your data right: Do's, don'ts, and how to's. *International Journal of Psychological Research*, 3(1), 97-110.
- Mbaiwa, J. E. (2008). Tourism development, rural livelihoods, and conservation in the Okavango Delta, Botswana. Texas A&M University, USA.
- Mbaiwa, J.E. (2004). The socio-economic sustainability of tourism development in the Okavango Delta, Botswana. Maun: Harry Oppenheimer Okavango Research Centre, University of Botswana.
- Mbaiwa, J. E. (2003). The socio-economic and environmental impacts of tourism development on the Okavango Delta, north-western Botswana. *Journal of Arid Environments*, 54, 447-467.
- McGregor, J.A., Camfield, L. and Woodcock, A. (2009). Needs, wants and goals: Quality of life and public policy. *Applied Research Quality Life*, 4, 135-154.
- Musa, M & Kassim, R.M. (2012). Factorial structure and psychometric validation of ecotourism experiential value construct: Insights from Taman Negara National Park, Malaysia. International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering, 6(8), 2288-2295.
- Nejati, M., Mohamed, B and Omar, S.I. (2014). Locals' perceptions towards the impacts of tourism and the importance of local engagement: A comparative study of two islands in Malaysia. *Tourism*, 62(2), 135-146.
- Nimako, S., Azumah, F.K., Donkor, F and Adu-Brobbey, V. (2012). Confirmatory factor analysis of service quality dimension within mobile telephony industry in Ghana. *The Electronic Journal Information Systems Evaluation*, 15(2), 197-215.
- Nkemngu, A. P. (2015). Quality of life and tourism impacts: A community perspective. *African Journal of Hospitality, Tourism and Leisure*, 4(1), 1-13.
- Nunnally, J. C., and Bernstein, I. H. (1994). *Psychometric theory* (3<sup>rd</sup>ed). New York: McGraw-Hill.
- Perdue, R. R., Long, P.T. and Allen, L. (1999). Resident support for tourism development. Annals of Tourism Research, 17, 586-599.
- Raykov, T., Tomer, A. and Nesselroade, J. R. (1991). Reporting structural equation modelling results in psychology and aging: Some proposed guidelines. *Psychology and Aging*, 6 (4), 499-503.

- Rojas, M. (2007). The complexity of well-being: A life-satisfaction conception and domains of life approach. In I. Gough and A. McGregor (eds.), *Researching well-Being in developing countries: From theory to research.* 259-280. Cambridge: Cambridge University Press.
- Sinclair, M.T. (1998). Tourism and economic development: A survey. *The Journal of Development Studies*, 34(5), 1-51.
- Sirgy, M. J. (1998). Materialism and quality of life. Social Indicators Research, 43 (3), 227-260.
- Smith, D and Langfield-Smith, K. (2004). Structural equation modelling in management accounting research: Critical analysis and opportunities. *Journal of Accounting Literature*, 23, 49-86.
- Soontayatron, S. (2013). Thai interpretation of socio-cultural impacts of tourism development in Beach Resorts. *American Journal of Tourism Management*, 2 (2), 29-35.
- Statistics Botswana (2011). 2011 Population & Housing Census, Preliminary Results Brief. Republic of Botswana.
- Stone, L.S. (2014). Perceptions of nature-based tourism, travel preferences, promotions and disparity between domestic and international tourists: The case of Botswana. PhD thesis, Arizona State University, USA.
- Stylidis, D. (2012). Tourism and community life: Building a conceptual frame, PhD Thesis, University of Survey, Guildford, UK.
- Tichaawa, T. M and Mhlanga, O. (2015). Residents' perceptions towards the impacts of tourism development: The case of Victoria Falls, Zimbabwe. *African Journal of Hospitality, Tourism and Leisure*, 4 (1), 1-15.
- UNWTO (2013). UNWTO Annual Report 2013. Retrieved from http://cf.cdn.unwto.org/sites/all/files/pdf/unwto\_annual\_report\_2013\_0.pdf.
- Wang, S., Bickle, M. and Harrill, R. (2010). Residents' attitudes toward tourism development in Shandong, China. *International Journal of Culture and Hospitality Research*, 4(4), 327.
- Wijanto, S.H. (2008). Structural equation modeling (SEM): A toll for research in business and management. *Journal of Quantitative Methods*, 4(2), 25-41.
- World Tourism Organisation (2018). UNWTO Tourism Highlights, 2018. Retrieved from http://www.e-unwto.org/doi/pdf/0/18111/9789284419876
- World Tourism Organisation. (2009). Tourism and economic stimulus: Initial assessment 2009, *UNWTO*: Madrid, Italy.
- World Tourism Organisation (2013). UNWTO Annual Report 2013, UNWTO, Madrid.
- World Travel and Tourism Council (2014). WTTC Travel and tourism: Economic impact 2014. WTTC: London.

- Yanamandram, V. K. (2006). Exploratory and confirmatory factor analysis of the perceived switching costs model in the business services sector. Australia and New Zealand Marketing Academy Conference (ANZAC-2006) Brisbane, Queensland, 4-6 December 2006.
- Yoon, Y., Gursoy, D. and Chen, J.S. (2000). Validating a tourism development theory with structural equation modelling, *Tourism Management*, 22, 363-372.
- Yu, C., Chancellor, H. C. and Cole, S.T. (2011). Examining the effects of tourism impacts on resident quality of life: Evidence from rural Midwestern communities in USA. *International Journal of Tourism Sciences*, 11 (2), 161-186.