

## An analysis of Residents' Willingness to Pay for Domestic Nature-Based Tourism in Botswana During and Post the COVID-19 Pandemic

Patricia Kefilwe Mogomotsi

*Department of Economics, Faculty of Social Sciences, University of Botswana, Gaborone, Botswana*

Goemeone E.J. Mogomotsi

*Department of Law, Faculty of Social Sciences, University of Botswana, Gaborone, Botswana*

Lesego S. Stone<sup>ORCID</sup>

*Department of Tourism and Hospitality Management, Faculty of Business, University of Botswana, Gaborone, Botswana*

Moren T. Stone\*<sup>ORCID</sup>

*Department of Environmental Science, Faculty of Science, University of Botswana, Gaborone, Botswana*

*\*Corresponding Author*

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### Abstract

The COVID-19 pandemic halted tourism leading to job losses, loss of livelihoods and revenue losses at national and international levels. The pandemic has reinforced the need to develop strong domestic tourism bases. The overall aim of this study is to estimate domestic tourists' willingness to pay for domestic tourism packages during and post the COVID-19 pandemic. To achieve the overall aim, this study seeks to estimate the residents' willingness to pay (WTP) for a standard two-day domestic nature-based tourism package and analyse factors influencing residents' WTP for domestic nature-based tourism. The study relied on primary data sourced from an online questionnaire administered randomly to residents aged 18 years and older. The contingent valuation method (CVM) was used to analyse the average level of the residents' WTP for domestic tourism. On average, the respondents were willing to pay for a standard two-day domestic nature-based tourism experience package valued at BWP3 340.66 per person sharing. Some camps charge as high as BWP72 097.62 for a similar package. There is a need to develop plans that promote pricing and product offerings that accommodate domestic tourists without having an impact on the sustainability of natural resources and the integrity of the natural environment.

**Keywords:** COVID-19 pandemic; contingent valuation method, domestic tourism; international tourism, nature-based tourism; willingness to pay

### Introduction

Tourism has high multiplier effects in terms of generating employment, increasing foreign exchange earnings, contributing to a positive balance of payment, and stimulating other sectors of the economy through forward and backward linkages (Mastny, 2001; Rasool et al., 2021). All these activities and positive attributes of tourism help to alleviate poverty in some tourism-dependent countries. In most developing countries, tourism is considered a competent driver of development. This is because the tourism sector has, over the years, displayed promising growth rates for various developing countries. For instance, according to the United Nations

Conference on Trade and Development (UNCTAD), since 1995, the tourism sector has expanded significantly, with the number of international tourist arrivals in Africa doubling from 24 million in 1995–1998 to 48 million in 2005–2008 and increasing to 56 million in 2011–2014 (UNCTAD, 2017). In 2018, up to 67 million international tourists visited African countries, generating US\$38 billion for the continent (Sallent, 2020; United Nations World Tourism Organization [UNWTO], 2019).

Despite the general growth of the sector over the years, the COVID-19 pandemic halted tourism worldwide (Onyeaka et al., 2021). This shock to the sector has led to job losses, loss of livelihoods and overall revenue losses at national and international levels (Movono et al., 2022). In 2019, the travel and tourism sector contributed 10.3% to the global GDP (World Travel & Tourism Council [WTTC], 2020). However, this decreased to 5.3% in 2020 due to restrictions to mobility (WTTC, 2020). According to the WTTC (2022a), in Africa, more than seven million jobs were lost in the travel and tourism sector due to severe international travel restrictions in response to the pandemic. The pandemic has exposed the unhealthy and unsustainable over-dependence of the sector on the international market in some developing countries, including Botswana.

Despite domestic travel being the main driver of travel & tourism in major economies, in Africa, most nature-based tourists who visit protected areas in Africa are mainly international tourists (WTTC, 2018). This is because domestic tourism is considered less prestigious than international tourism in Africa; consequently, it has a smaller market share (Stone & Nyaupane, 2019). This occurs despite the positive impacts that domestic tourism can contribute to a country. These include the use of inexpensive locally owned products and services such as accommodation, tourism enhancing cross-cultural communication, social cohesion, and national integration (Melubo, 2020; Shar, 2000). Moreover, domestic tourism is resilient and can withstand crisis events such as political instability, disease outbreaks, pandemics, economic recessions, and local conflicts by sustaining jobs and keeping the industry alive (Avraham & Ketter, 2013; Melubo, 2020), as it does not involve crossing national borders.

Several authors indicate that developing countries continue to disregard, neglect, and ignore domestic tourism despite its possible benefits, however, developed nations promote it as a means of achieving sustainable tourism development (Dadvar-Khani, 2012; Kabote et al., 2017). Nevertheless, several countries in the African region have made efforts to promote domestic tourism to complement the more dominant international tourism market (Adinolfi et al., 2021; Bakari, 2021). Due to the unpredictability of international tourism, many destinations are turning toward domestic tourism to cushion the industry and bring stability to it (Kruger & Douglas, 2015; Smeral, 2010). According to Nunkoo et al. (2022), there is evidence that domestic tourism has been growing, both during the COVID-19 pandemic and thereafter in various countries.

Consequently, there is a need to investigate residents' willingness to pay (WTP) for domestic, especially focusing on nature-based tourism, the most dominant form of tourism promoted in many African countries. The focus of this paper is nature-based tourism (especially in protected areas) because like many countries in the region, tourism in Botswana is associated with wildlife safaris in protected areas (Ferreira, 2004; Stone & Nyaupane, 2016). Consequently, the country has set aside 39% of its land for wildlife and nature-based tourism management (Stone & Nyaupane, 2020).

Like many other countries, the tourism sector in Botswana was devastated by the COVID-19 pandemic. In 2019, the travel and tourism sector contributed 12.5% to the country's gross domestic product [GDP] (WTTC, 2022b). The contribution of the sector to the GDP and job creation declined between 2020 and 2021 (WTTC, 2022b). In 2020, the travel and tourism

sector of Botswana contributed 7.8% to the GDP (WTTC, 2022b). Travel bans and COVID-19 restrictions resulted in the collapse of the sector with some hotels in the country operating at 10% capacity while many citizen-owned tourism enterprises had to close (Okavango Delta Management Plan [ODMP], 2022). According to a report by the Botswana Tourism Organisation [BTO], by April 2020, of the 26 000 workers employed in the tourism sector, only 300 were at work mainly working in facilities offering quarantine services for COVID-19 and related patients (BTO, 2020). Only those facilities involved in the provision of accommodation for essential services personnel and mandatory quarantine were able to make earnings. The devastating effects of COVID-19 on the tourism sector led to the promotion of nature-based tourism products to the domestic tourism market, a market which has largely been ignored and excluded through pricing and the high-value, low-volume (HVLV) tourism approach adopted by the country (Morupisi & Mokgalo, 2016; Stone & Stone, 2022). In their study, Stone et al. (2021) recommended the promotion of domestic tourism to nature-based attractions to remedy the problem of unsustainable and predominant dependence of Botswana's tourism sector on the international market.

In 2019, international tourists spent BWP 11 091.0 million (USD 1 000.3 million) in Botswana, accounting for 62.8% of total exports, and in 2020, their expenditure was BWP 4 585.4 million (USD 413.4 million), translating to 33,6% of total exports, (a decline of 58.7%), while in 2021 the expenditure was at BWP 5, 710.0 million (USD 515.0 million), accounting for 26.0% of total exports; showing an increase of 24.6% from the year 2020 (WTTC, 2022b). Comparatively, domestic visitor expenditure in 2019 stood at BWP 5, 255.1 million (USD 474.0 million), in 2020 it was BWP 3, 826.4 million (USD 345.1 million) (a decline of 27.2% from 2019), while in 2021 it was BWP 4, 640.2 million (USD 418.5 million); an increase of 21.3% from 2020 (WTTC, 2022b). This illustrates Botswana's heavy dependence on the international tourism market compared to the domestic market. This outcome can be explained by the country's policy framework, which resonates with the high value – low volume (HVLV) approach. By its nature, this approach selectively includes certain market segments while excluding others.

With the HVLV policy promoted by the country, high-end tourism facilities were created in wilderness areas such as those in the Okavango Delta. These establishments are playgrounds for international tourists, the main markets for nature-based tourism in Botswana (Mbaiwa, 2017; Stone & Nyaupane, 2016). The HVLV policy has led to the exclusion of local people as tourists and as investors in the sector due to the large financial and human capital needed to cater to the needs of the high-end market (Stone & Stone, 2022). As a result, the tourism sector of Botswana largely caters to international tourists and is foreign owned and controlled (Glasson et al., 1995). Domestic tourists visiting nature-based attractions make up a small proportion of visitors. Between 2010 and 2013, only 8.2% of visitors to protected areas were citizens compared to 71.1% of international tourists (Department of Wildlife and National Parks, 2014; Stone et al, 2017). Most domestic tourists (63%) engage in the visiting friends and relatives (VFR) category (Morupisi & Mokgalo, 2017).

In addition to the HVLV policy, several factors contribute to the low domestic tourism levels. These include the lack of travel and tourism culture by Botswana, lack of preparedness for leisure travel by citizens, non-diversified tourism product/, product that is familiar to locals due to their upbringing, high prices charged at local facilities, protected areas not being accessible, and marketing informed by outsiders' views and image (Morupisi & Mokgalo, 2017; Stone & Nyaupane, 2016, 2019; Stone & Stone, 2017). The domestic tourism market in Botswana has therefore remained an unexplored and undeveloped market. Furthermore, literature on domestic tourism in Botswana is almost non-existent. Limited literature is available from government agencies such as the Department of Wildlife and National Parks

(DWNP), the Department of Tourism (DoT) and the Botswana Tourism Organisation (BTO) and academic studies (Mbaiwa et al, 2007; Morupisi & Mokgalo, 2017; Stone & Nyaupane, 2016, 2019; Stone & Stone, 2017; Stone et al., 2017).

Although these studies have highlighted the need to diversify Botswana's tourism market and to promote domestic tourism in the post-pandemic economy (see BTO, 2020; Stone et al., 2021; ODMF, 2022), there are currently no studies on the willingness of residents to embark on domestic tourism during and post the COVID-19 pandemic. Therefore, this paper addresses this gap by analysing residents' willingness to pay (WTP) for domestic tourism. The specific objectives are to; (i) estimate the residents' WTP for a standard two-day domestic nature-based tourism package, and (ii) analyse factors influencing residents' WTP for domestic nature-based tourism. The standard two-day domestic nature-based tourism package was used as a preferred proxy because the advertisements for vacation packages in developing countries, including Botswana, often use the package for pricing (see, for example, Ker & Downey, 2021; Wilderness Safaris, 2022).

A successful and sustainable tourism market is commonly segmented on the basis of various criteria such as demography, economy, product offering, and geography, among others (Bhandari & Heshmati, 2010). Therefore, it is important to identify and define the market based on these criteria. This is important for crafting pricing policies that are consistent with the behavioural patterns and preferences of the target domestic nature-based tourism market. The tourism market for any tourism product needs to be informed by the concept of sustainable tourism development, a framework that emphasises ecological sustainability, economic efficiency, and social equity.

## **Literature review**

### ***Sustainable tourism development***

The concept of sustainable development became predominant in tourism research and in the international development community after the release of the World Commission on Environment and Development (WCED) Report [the Brundtland Report] in 1987. Sustainable development is "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (WCED, 1987, p. 43). Sustainable development is hinged on three broad approaches and concerns, namely: social, economic, and ecological sustainability (Ahn et al., 2002). Ecological sustainability emphasises that the rate of renewable natural resources use should not be faster than the rate at which the natural process renews itself (Serageldin, 1993). Economic efficiency aims at producing the maximum output in order to achieve a high standard of living of the people within the constraints of the existing capital (Paehlke, 1999). Social equity advocates fairness and equal access to resources by all user groups, aimed at ensuring equity in the distribution of costs, benefits, decision-making and management (United Nations Conference on Environment and Development [UNCED], 1992).

The development of tourism in the world today is concerned with sustainable aspects of cultural heritage preservation, conservation of the natural environment and development of community livelihoods (Amerta et al., 2018). As a result, nowadays countries adopt tourism development as a stimulus to the concern for the carrying capacity of the natural and cultural environment as well as the welfare of local communities (Stone & Stone, 2020). Sustainable tourism development can be achieved if utilization levels of various resources do not go beyond the regeneration ability of those resources (Amerta et al., 2018). It is of great importance to plan and develop tourism aimfully and sustainably through the search for compromises between environmental, economic, and social aims of society (Streimikiene et al., 2021).

Sustainable tourism development management must highly satisfy tourists' needs, assure significant experiences for consumers, increasing their consciousness under issues of sustainability, and propagating practices of sustainable tourism among them (Hall, 2019). The first step seeking sustainability in tourism business is the identification of problems and devises the best practical approach to find a solution (MacKenzie & Gannon, 2019). For example, in our case there exist a problem of why the domestic tourism market has remained largely unexplored and undeveloped? Why is Botswana as a competitive destination heavily reliant on the international tourism market at the detriment of the domestic market? Is the reliance on one market segment sustainable? Having identified problems that question the sustainability of the tourism sector's performance, it is necessary to prepare a plan of the key measures and strategies as an intervention measure to mitigate the existing problem.

Due to the country's high dependence on the international tourism market, it can be argued that there might be some good reasons for this status quo, but at the same time, one could ask what good reasons there are that make vacations unavailable for the domestic market - is it by design or default? Does the preference for the international market over the domestic market raise issues of social exclusion and unequitable access to resources? As a result of these questions, it is important to employ the sustainable tourism development framework to help guide research on how to promote synergies between social, economic, and environmental dimensions of sustainable tourism development.

#### ***Nature-based tourism: An overview***

Nature-based tourism, especially wildlife tourism in protected areas, contributes significantly to the global economy. According to the World Travel and Tourism Council [WTTC], it contributed to 21.8 million direct and indirect jobs globally (6.8% of total travel and tourism jobs) and 4.4% direct global travel & tourism GDP (WTTC, 2019). Wildlife tourism is unevenly distributed across the world with the African region contributing the largest share at 36.3%, Latin America (8.6%), Asia-Pacific (5.8%), North America (2%) and of in Europe 1(.6%) (WTTC, 2019). More than half of the international leisure tourists who visit countries in Africa engage in high-end trips to watch wildlife in nature-based destinations (Hambira, Stone & Pagiwa, 2022; UNWTO, 2015).

Wildlife tourism is popular in many east and southern Africa countries (Hambira, Stone & Pagiwa, 2022). For many countries in the Global South, wildlife tourism in protected areas has been used to promote sustainability (Makindi, 2016). This has largely been achieved through the inclusion and participation of indigenous communities in wildlife tourism to promote community development, poverty alleviation and improvements in the livelihoods of host communities. For many countries in the southern African region, this has been achieved through the promotion of community-based tourism through programmes such as Community-based natural resource management [CBNRM] (see Mbaiwa, 2018; Tichaawa & Mhlanga, 2015). Planned wildlife tourism can contribute to sustainable tourism development. This paper adopts the economic valuation approach to assess the performance of the Botswana domestic tourism market.

#### ***Economic valuation of domestic nature-based tourism***

The concept of economic valuation of ecosystem services is not a novel one (Freeman III, Herriges & Kling, 2014; Grabowski, 2012). Over the decades, there has been a proliferation of efforts to apply this approach to a wide range of habitats and ecosystems, in part as a response to the emergence of the Millennium Ecosystem Assessment ([MA], 2005). It has been argued that quantifying the value associated with ecosystem services not only provides an understanding of user preferences and the relative value placed on ecosystem services by the

current generation (de Groot et al., 2012), but also serves as a compass in decision-making processes regarding the planning, implementing, justifying (Grabowski, 2012), and pricing ecosystem services such as nature-based tourism. According to Farley (2008), relying on the monetary values based only on market prices leads to missed opportunities of appreciating the rights and values of the current and future generations, which may assist in decisions regarding the pricing and allocation of resources between competing uses. Consequently, this may enhance decision-makers' ability to promote equitable, affordable, and sustainable access to such ecosystem services as nature-based tourism, and to attain a balance between economic diversification and effective management of ecosystem services.

In some environmental economics studies, researchers use the contingent valuation method (CVM) to estimate economic values for various ecosystem and environmental services (see Knetsch, 2005; Madigele, Mogomotsi & Kolobe, 2018; Mmopelwa et al., 2005; Perman et al., 2003; Vatn, 2004). The CVM, as applied in some studies, is used to estimate both use and non-use values of ecosystem services. In this approach, people are given the leeway to avow their WTP, contingent on a specific hypothetical scenario and description of the environmental service. The theoretical underpinning of the CVM is centred on microeconomic welfare theory, specifically on the concept of utility (Spash, 2008a). According to this concept, individuals aim to maximise their utility subject to an income constraint. Individuals equally aim to minimise their expenditure subject to their income and utility constraints (Spash, 2008b). Although the CVM is widely applied for its simplicity, applicability across disciplines and importance in aiding effective allocation of resources, it is not without controversy. The WTP and associated values derived from CVM are often context-specific, which limits the ability to compare service valuation efforts across different environmental conditions. Despite criticism, Spash (2008b) cautions that the CVM can be viewed as a means of understanding the underlying motives for human behaviour. In the current study, it is used to quantify the residents' motives for embarking or failing to embark on domestic nature-based tourism.

## Methods

### *Data collection*

To carry out this study, an online questionnaire was administered randomly to residents for a period of two months from August 2020 to October 2020. Due to the COVID-19 pandemic and travel restrictions in place at the time, the online approach was the preferred method as it allowed for a broader and safer reach of the population without the need for the researchers to obtain inter-zonal permits to travel from their base. For the questionnaires to be more visible and to reach a larger audience, a Facebook sponsored post was created. Facebook was chosen because of its high usage in Botswana. From a population of 2,024,787 in 2011, there were 620 000 Facebook users in 2015 (Faimau & Behrens, 2016).

The sample size ( $n$ ) for this study was 166 respondents. This was obtained at 99% confidence level and 10% margin of error ( $E$ ), using a population of 620 000 Facebook users. The estimated response rate of 50% was used. The following equations were used:

$$\begin{aligned}x &= Z(c/100)^2 r(100-r) \\n &= N x / ((N-1)E^2 + x) \\E &= \text{Sqrt}[(N-n)x / n(N-1)]\end{aligned}$$

Where  $N$  is the population size,  $r$  is the fraction of responses of interest, and  $Z(c/100)$  is the critical value for the confidence level  $c$ . The respondents were randomly selected to ensure that every member of the population has a non-zero probability of being selected.

The questionnaires were administered to citizens and residents of Botswana located in the country at the time of administration. The age of the respondents was also used as an inclusion criterion. The questionnaires were administered to respondents aged 18 years or older. This age is aligned to the country's legal minimum working age, and to our initial hypothesis that WTP should be supported by the ability to pay. A total of 176 completed questionnaires were received. However, the data cleaning process generated 160 responses, which were used for analysis. The excluded 16 responses were either citizens based outside Botswana or respondents aged less than 18 years.

This study used the CVM to analyse the average residents' WTP for domestic tourism. To avoid the starting point bias, the respondents were given "yes" or "no" questions. Follow-up questions for "yes" responses were open-ended to elicit specific monetary figures or payments in any form. The means, modes and medians were subsequently calculated from the specified monetary figures obtained from the respondents.

The questionnaire was divided into three parts and used a combination of open-ended and closed-ended questions centred on the study's specific objectives. The first part obtained the socio-demographic characteristics of the respondents. These were important for analysing the factors influencing WTP for domestic tourism. The second section collected data on the respondents' preferences for international and domestic tourism. The section also solicited data on their willingness to pay for tourism domestically. The final section obtained data on the respondents' opinions regarding the domestic tourism sector in general. This was important to understand the underlying reasons for questions in the second section.

### ***Multiple-linear regression model***

To determine the factors influencing the residents' WTP for domestic tourism in Botswana, this study used a multiple linear regression model. The dependent variable in the model was the actual amount stated by the respondents as their WTP for domestic tourism. The independent variables included in the model were the respondents' age, gender, marital status, highest education level attained, monthly income and number of earlier visits. Ordinary least square method was employed to estimate the coefficients. A linear function form was used as specified below:

$$WTP = f(AGE; GND; EMPLOY; EDU; HHSIZE; INC; NCV)$$

Where:

WTP = willingness to pay for domestic tourism (in Pula)

AGE = age (number of years)

GND = gender (0 – male, 1 – female)

EMPLOY = employment status (0 – unemployed, 1 employed)

EDU = education (number of years of education)

HHSIZE = household size (number of adult members in the family)

INC = monthly income (Pula)

NCV = number of countries visited

The choice of variables was largely influenced by previous studies. As argued by Bhandari and Heshmati (2010), tourists' WTP is mostly dependent on certain socioeconomic characteristics, as well as visit characteristics. In this study, the number of countries visited was used as a proxy for the respondents' visit characteristics.

## **Results and discussions**

### ***Description of the socio-demographic characteristics of the respondents***



Most of the respondents (60%) were female. The mean age was 33 years. About 42.5% of the respondents were aged between 25 to 34 years, while 1.5% were older than 55 years (see Table 1). Only 16.75% of the respondents attained up to 12 years of formal education. The majority (81.25%) either obtained tertiary school degree or were students at tertiary schools. This finding suited the CVM used in this study. This is because it has been argued that more literate people are likely to understand CVM as compared to illiterate people (Madigele et al., 2018; Mmopelwa et al., 2005).

Table 1: The socio-demographic characteristics of the respondents

Variable	Percentage (n = 160)
<b>Gender</b>	
Female	60
Male	40
<b>Total</b>	<b>100</b>
<b>Age</b>	
18 - 24	7.5
25 - 34	42.5
35-44	33.5
45-55	15
55+	1.5
<b>Total</b>	<b>100</b>
<b>Education level</b>	
Up to 10 years of formal education	2
Up to 12 years of formal education	16.75
Tertiary level or student at tertiary level	81.25
<b>Total</b>	<b>100</b>
<b>Employment status</b>	
Unemployed	1.25
Employed by the government	32
Employed in the private sector	30
Student at tertiary school	11.5
Self-employed	25.25
<b>Total</b>	<b>100</b>

About 32% of the respondents indicated that they were employed by the government, while 30% were employed by the private sector. Students at tertiary schools constituted 11.5%. Only 1.25% of the respondents indicated that they were unemployed. The remaining proportion was self-employed. On average, most of the respondents indicated that they earned more than BWP12 000.00 per month (see Table 2). The income bracket between BWP8 001.00 to BWP12 000.00 was the second highest at 17.5%.

Table 2: Average monthly income of the respondents

Income (BWP)	Percentage
Less than 1200	2.25
1200 - 1500	6.25
2501 - 5000	6.25
5001 - 8000	6.5
8001 - 12 000	17.5
More than 12 000	61.25

### *The residents' WTP for domestic nature-based tourism*

In the questionnaire, the mean amount that the respondents were willing to pay for a standard two-day domestic nature-based tourism experience package was BWP3 340.66 per person



sharing (see Table 3). The highest amount they were willing to pay for the package was BWP5 000.00. To promote diversity, ecosystems and natural environment integrity, Botswana has adopted a high value-low volume tourism policy which aims to attract a limited number of tourists with high expenditure patterns. However, the strategy not only places less emphasis on domestic tourists, but it is also out of reach for most citizens and residents (Mogomotsi, 2019; Stone & Stone, 2022). From 2020, there has been a surge in advertisements offering “affordable rates” meant for citizens and residents. For example, Ker & Downey (2021) temporarily reduced their prices for Botswana citizens and residents by 70%. Their nature-based tourism experience covers the Okavango Delta in the Moremi Game Reserve. The reduced price was BWP3 990.00 for a two-day package, BWP649.34 higher than the estimated WTP value derived in this study. Similarly, the Great Plains temporarily reduced their prices for a standard two-day package to BWP5 600.00, which is BWP2 259.34 more than the mean WTP derived in this study. The Wilderness Safaris (2022) website indicates that from April 2022, a two-day package at the Mombo camp is US\$5906.00 (roughly BWP72 097.62). While this study appreciates the exclusivity of the product on offer and the motive behind the high value-low volume tourism policy approach, it argues that continuing to exclude domestic tourists (due to high prices), not only undermines the country’s efforts to promote domestic tourism, but it also leads to revenue losses due to outbound tourism.

Table 3: WTP for domestic nature-based tourism

Mean (BWP)	Median (BWP)	Mode (BWP)	Standard deviation (BWP)
3340.66	2750.00	5000.00	2908.04

### *Factors influencing residents’ WTP for domestic tourism*

At  $R^2 = 0.626$ , it can be concluded that the model explains 62.6% of the variations in the WTP for a domestic nature-based tourism experience (Table 4). Furthermore, the likelihood ratio tests of the regression show that the explanatory variables are mostly significant, and they should be incorporated in the specification of the model.

Table 4: Regression results for WTP

Variable	Coefficient
$\alpha$	1.002
AGE	0.709
GND	-0.071
EMPLOY	0.245*
EDU	2.013*
INC	0.339**
NCV	-0.00752*
N	160
$R^2$	0.626

\*Significant at 5% level of significance

\*\*Significant at 10% level of significance

The results show that residents become more willing to embark on domestic nature-based tourism as their age increases. This implies that younger residents are less willing to tour domestically and enjoy the nature-based experience within the country. The coefficient for education is positive and statistically significant at 5% level of significance. Thus, all things being equal, residents with tertiary education are more likely to pay for a domestic nature-based tourism experience than those without tertiary education. It can be argued that education plays an important role in generating awareness levels towards resuscitating the tourism industry through the promotion of domestic tourism.

Similarly, the WTP is significantly higher with higher monthly income. As reflected in Table 3, the coefficient of income is positive and statistically significant at 10% level of significance. Higher income leads to increased affordability. As argued by Bhandari and Heshmati (2010; 620), “higher income leads to higher probability to visit more sites and demand for better services”. According to traditional economic theory, there is a negative relationship between the price of the product and the quantity demanded of the product. When prices of nature-based domestic tourism experience are high, lower domestic tourists’ inflow will be experienced. This may reduce future potential revenue generated from domestic nature-based tourism.

Socio-economic factors such as income have been found to influence the demand for domestic tourism (Hung et al, 2011; Kang & Tan, 2004). This is befitting because income and the availability of leisure time are two of the most important requirements for the consumption of tourism (Boakye et al., 2013). Results of this study also indicate the significance of income in domestic tourists WTP for nature-based tourism experiences in Botswana. In India, Sahoo et al. (2022) found that as the income level of a household increases, so too does spending on tourism. Income influences tourist spending leading to people with higher incomes likely being able to spend more money on travel and their family's well-being.

In contrast to results in this study where the propensity to engage in domestic travel increases with age, Lim et al. (2015) found that young travellers had high interests and leisure time to travel to new destinations despite their lower levels of disposable income. Authors such as Dardis et al (1981) found a negative relationship between tourism spending and age, meaning that they discovered that as age increases, tourism spending reduces. However, as found in this study, authors such as Jang and Ham (2009) and Sahoo et al. (2022) found that older people spend more on travel, especially after retirement because they associate the satisfaction they get from travelling with good health and their ability to live longer.

In line with other studies, gender and education have an impact on domestic travel propensity (Au & Law, 2000; Lee & Kim, 1999). In developing countries, Boakye et al. (2013) found that males are less hampered by domestic chores and therefore have more free time and a greater propensity to travel. A positive relationship exists between formal education and tourism expenditure, with education exposing people to the overall benefits of tourism consumption (Boakye et al., 2013; Sahoo et al., 2022). It has been found that people with better education become employed and have money that enables them to spend on travel and tourism (Wu et al., 2013). It has also been found that highly educated parents have a greater propensity for travel and are likely to pass this on to their children (Boakye et al., 2013).

Domestic tourism has been found to be significant in the development on national states. An undeveloped domestic tourism market may lead to locals losing a sense of place and being resentful as their areas become dominated by a foreign-controlled tourism industry (Mbaiwa, 2017). This foreign domination has led to leakages and repatriation of revenue. The promotion of domestic tourism can rectify these problems and promote sustainability in the tourism sector. Domestic tourism can reduce seasonality, increase domestic spending, generate visitor spending to improve the industry’s financial resilience, redressing spatial inequalities and is more sustainable and less exploitative than international tourism (Canavan 2012; Kwoba, 2018). Rogerson (2015) acknowledges that domestic tourism promotes the geographical spread of tourism and supports nation-building and integration. It can even be significant even with domestic tourists without a high buying power (Rogerson, 2015; Walton, 2009).

Due to the poor performance of domestic tourism in Botswana, strategic and innovative interventions need to be put in place. There is a clear need to develop a strategic vision in the form of a policy device with a clear, market-driven tourism strategy that directs the future marketing and development of key tourism attractions towards greater diversification and

market expansion for both international and domestic markets. Such a strategy should not, in any way, compromise the already established international tourism market. Strategies adopted must not dilute or compromise the already well-established wildlife and wilderness brand. There is a need to efficiently plan, zone, and manage parks and wildlife management areas in line with market segmentation requirements that will suit a spectrum of visitors.

Current frameworks and practices on nature-based tourism in Botswana do not fit into a focused competitive strategy that provides the basis, unique positioning and critical requirements as cornerstones for a winning, sustainable tourism industry in Botswana (Leechor, 2017). Botswana should adopt sustainable tourism development that is highly supply driven. However, the country should give due recognition to demand trends, market scope and variations of various market segments which are equally inclusive of international and domestic markets.

The results clearly show that the domestic market exists. However, the problem that exists is that demand for the same attractions sought by the international market are thwarted by the product pricing, which is beyond the reach of the domestic market. The exclusion of the domestic market is pronounced because the tourism product is supply-driven than demand-driven. It is clear that the needs of the international and domestic markets in terms of attractions, services and expenditure prowess may not be the same. As a result, a one-size-fits-all strategy could dilute the brand value and tourism potential of the country. Therefore, a differentiated package, branding and positioning that communicates clear and strong needs for both the international and domestic market is encouraged. Results show that that the domestic market does not have the same purchasing power for the same resources sought by international market. Consequently, the domestic market would need tourism products that suit their budget. Furthermore, a marketing strategy that clearly defines the various target market segments' profiles, preferences, tourism decisions and purchasing patterns needs to be devised. With the current situation, a marketing strategy that focuses on the international market cannot be used to target the domestic market because the two markets' needs are different in terms of preferences and purchasing patterns.

Tourism has emerged as an increasingly important contributor to the economy of southern African countries. Despite the enormous setbacks brought about by the COVID-19 pandemic, it remains a significant development factor going forward (Saarinen et al., 2022). Hence, its potential contribution to the economy needs to be harnessed by sustainably securing reliable markets that can be relied on even during challenging times. The setbacks experienced during the outbreak of the COVID-19 pandemic have demonstrated that being heavily dependent on the international tourism market is not sustainable and will not serve Botswana's tourism industry. As a result, the domestic market needs to be considered as another market segment that can complement the international market.

Sustaining the longevity of a given destination in the marketplace becomes a function of turning the destination's comparative advantages into a competitive market position (Hassan, 2000), that can sustain both the domestic and international markets. Sustainable tourism development is about adding value in a way that is consistent with varied market demands – both domestic and international markets. The development of a sustainable competitive position for any destination requires responding to the changing nature of demand in the marketplace. In this case, destinations need to respond to changes brought about by pandemics. So, drawing from the learnt lessons, it is clear that being dependent on one market segment may work against sustainable tourism development in cases where pandemics hit the targeted market segment hard. When one market segment is hit hard by pandemics, other remaining market segments should continue supporting the destination. Consequently, the tourism product offered should continue drawing tourists with possible minor adjustments.

Sustainable tourism provides destinations with an alternative for economic development that is needed to position the destination competitively in the marketplace (Hassan, 2000). The COVID-19 pandemic has taught us that today's tourism markets cannot be classified as being homogeneous. They need to be varied to prevent chaotic outcomes in cases where one homogeneous market is hard hit by pandemics. Dramatic impacts on the tourism industry brought by pandemics need to be avoided, especially by avoiding over dependence on segmented global marketplace - regional and domestic markets are alternatives to complement the international market.

## Conclusions

This study aimed to estimate domestic tourists' WTP for a standard two-day domestic nature-based tourism package, and to analyse factors influencing residents' WTP for domestic nature-based tourism. The findings indicate that younger residents are less willing to embark on domestic nature-based tourism. The domestic tourists' WTP is positively related to education, employment status and monthly income. On average, domestic tourists are willing to pay BWP3 340.66 per person sharing for a standard two-day domestic nature-based tourism experience.

Our estimates of the WTP for domestic nature-based tourism support the view that the current rates outprice domestic tourists, leading to overdependence of the tourism industry on the international market. However, due to COVID-19, the country's tourism industry was shown to be unsustainable. The over dependence on international arrivals by the tourism industry in Botswana was exposed through the shocks and associated risks the industry faced. This calls for the development of sustainable, optimal, responsible and diversified tourism products for both international and domestic tourists. For this to occur, there is a need to develop plans that promote pricing and product offerings that accommodate domestic tourists without having an impact on the sustainability of natural resources and the integrity of the natural environment. As a result, there needs to be a balance between sustainable and inclusive tourism. This is important because it promotes the protection of the endangered biodiversity that supports tourism and encouraging sustainable economic development to support the national and local economies.

This study relied on a small sample size and used social media to collect data. We propose the use of a different strategy to collect data in future studies; data could be collected using a data collection instrument administered by researchers, to increase the response rate and to offer clarity to respondents when needed. Further studies on pricing stratification should be conducted using a larger sample size. Studies on residents' perceptions and knowledge of domestic tourism should also be conducted. Such studies are crucial in unpacking the factors influencing the residents' willingness, or lack thereof, to embark on domestic nature-based tourism.

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