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Bed Occupancy as a Predictor of Tourism Performance Index in Kenya

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Abstract:

Tourism is one of the leading economic engines in the world and most governments invest in policies that engender conducive environment that enhances tourism performance in such governments. Bed occupancy is one measurement of gauging tourists' attraction to the hotels in Kenya. The number of tourists who visit Kenya annually can also be a measure of tourist performance index in Kenya. The main aim of this study was to analyze bed occupancy as a predictor of Tourism Performance Index in Kenya. The study adopted descriptive survey research design targeting 183 star rated hotels in the tourist circuit in Kenya. The study sampled 126 of such hotels Yamane (1967) sampling formula and extracted secondary data dealing with bed occupancy and total number of tourists who visited Kenya between 2013-2019. The study used simple linear regression to establish this prediction. The results indicate that the correlation coefficient between bed occupancy and tourist performance was statistically significant ($r=0.622$, $p=0.000$). The null hypothesis H_{01} : that bed occupancy in the hotels in Kenya is not a predictor of tourist performance Kenya was rejected at .05 level of significance. This implies that bed occupancy is a reliable predictor of tourist performance Kenya.

Keywords: Tourist performance index, bed occupancy in hotel industry

1. Introduction

The World Tourism Organization (UNWTO, 2016) highlights, indicates that tourism is an economic and social phenomenon which is growing at a faster rate compared with other growing economies. New tourist destinations are coming up as a result of modern tourism developments leading to socio-economic progress. Tourism competes favorably with oil exports, sale of food products and automobiles. No doubt tourism is the main source of income for many developing countries. Performance in tourism industry is an enabler for increased diversification and stiff competition among destinations all over the world.

In Kenya, tourism is the second largest source of foreign exchange revenue after agriculture. The tourism industry includes visits to the 19 national parks and game reserves, the coastal beach of Mombasa, eco-tourism, cultural tourism, sports and conference. During the 2007-2008 ethnic clashes, tourism industry records fell from revenue of 17.5 billion to 8.08 billion and visits decreased from 273,000 to 130,585. Kenya hosted more local conferences from 3,077 in 2014 to 3,199 in 2015. International meetings dropped by 10 percent (Mutambo 2016). The Kenya National Bureau of Statistics (KNBS 2016) noted the tourism industry; suppressed performance³ was mainly due to security concerns particularly in the coastal region, and the negative travel advisories, from some European source markets. International tourism numbers have been falling since 2011, when the country received 1.8 million tourists earning Kshs. 97.9 billion. Insecurity, mainly from terrorist incidents, disease outbreaks and poor economy have led to the decline.

The performance of the tourism industry is critical to the wealth rating of a country. The contribution of tourism industry to development, promotion of peace, socio-economic progress, and good international and national relations cannot be overestimated. The tourism industry has the potential to improve a country's infrastructure and creation of employment to levels so high than any other sector. From natural resources to animals and birds' species, marine parks and scenic sites all are income earners from viewers commonly referred to as tourists (Kimunya, 2016).

According to the Ministry of Tourism & Wildlife (2018), Kenya has seen a significant improvement in tourist arrivals as compared to the year 2017 from 1,474,621 tourists in 2017 to 2,025,206 in 2018, a 37.33 percentage increase. The Ministry attributes this improved performance to a number of factors; improved security, growth in the aviation sector, political stability, investor confidence, revitalized marketing efforts and withdrawal of travel advisories against Kenya by the UK and US amongst other factors that have stimulated the growth (Ministry of Tourism & Wildlife, 2018). Accordingly, only aviation in the transport sector was worth mentioning as one of the contributing factors. Yet aviation, railway and water transport collectively comprise 20% of the countries transport sector (Kenya Tourism Board, 2016). Accessibility to tourist sites is mainly through the road network and the Ministry, through its most recent report, has failed to assess its importance in increasing the number of tourist visits. The road network is the main mode of transport in

Kenya and addressing accessibility via aviation without including road transport has little impact on the overall contribution accessibility has on the tourism sector performance.

Tourism plays an important role in economic recovery and stability in Kenya. Tourism is Kenya's second largest source of foreign exchange revenue after agriculture, making it a core contributor to the economic success of Kenya (Blij, 2010). The 34 national parks and game reserves in the country have provided platforms for photo safaris by tourists who are eager to explore such regions. The Great Rift Valley, mosques in Mombasa, coffee plantations in Thika, and beaches along the Indian Ocean are other tourist attraction sites in Kenya (Kenya Wildlife service, 2014). The realization of the importance of tourism to the country's economy led to the creation of the Ministry of Tourism, which works hand in hand with the Kenya Tourism Board, to ensure that international tourists enjoy their stay in the country. More international tourists will be attracted into the country if the industry was run in a manner that is pleasant to both the country and its tourists (Ministry of Tourism, 2013).

1.1. Statement of the Problem

Tourism is Kenya's second foreign exchange earner. Gross domestic receipts amount to an average of 13.7% of the total value of merchandise exports. It is the most important export of goods and services (Rubadiri, 2012). Kenya's economy has frequently suffered following violent events. For example, the 2013 attack on the West Gate Mall; the 2007 – 2008 post-election violence; and, the 1998 bombing (James, 2008). These incidents have increased safety threats to international tourists which affect Kenya as a destination for tourism. International tourism in Kenya not only creates jobs in the tertiary sector, but encourages growth in the primary and secondary sectors of the industry. This is known as the multiplier effect (How many times money spent by a tourist circulates through a country's economy). The money spent in a hotel creates jobs directly there and indirectly elsewhere in the economy. The hotel has to buy food from local farmers who may spend this money on fertilizer and clothes. International tourists also buy souvenirs. Tourists spend their accommodation time in the hotels measured in terms of percentage (%) of bed occupancy. There is no empirical study that has been conducted in Kenya to establish the weather bed occupancy in the hotels in Kenya can be used as a predictor of tourist performance index measured in terms of total number of tourists who visit Kenya in a year creating a research gap filled by the findings of the current study which analyzed bed occupancy as a predictor of Tourism Performance Index in Kenya.

2. Literature Review

2.1. Empirical Review

Iwara, Ukwayi, and Ojong (2012) critical analysis of the success factors that will determine tourist arrivals in Nigeria is to provide a data base that will guide policymakers in their decisions with respect to tourism development in Nigeria. Fifteen states are used for this study of which one thousand five hundred questionnaires were administered in this destination to capture the determinants factors influencing tourist arrivals in Nigeria. Data was obtained from Tourism Bureau and from the questionnaires administered to residents around the potential tourist sites. The dynamic panel and the ordinary least square analysis were used to analyze the data collected in the area. Findings indicate that endogenous and 18 exogenous factors are not the only major determinants of tourist's arrivals but other factors such as tourist experience and level of infrastructures are observed as also determinants of tourist arrivals in Nigeria.

Kipruto, Sitati and Ngoriarita (2012) seeks to identify the challenges confronting tourism development in the North Rift region of Kenya by reviewing related literature, carrying out interviews with officials from six hotels and four tour companies. Two Kenya Tourist Board officials were also interviewed, and field observations utilized. Results show that the key challenges confronting tourism development in the region related to development of tourism products, accessibility, marketing, coordination among stakeholders and insecurity. The study recommends that these problems should be addressed jointly by the central government, local governments, hotels, tour operators and the host community if meaningful tourism is to be realized.

The hotel industry in Kenya is closely linked to the tourism sector which has shown impressive growth over the years. Tourism is one of the six key areas that have been given priority in acting as the key growth drivers in Kenya (Owiti, 2011). The sector has been charged with the task of making Kenya one of the top ten best tourist destinations globally offering distinctive visitor experiences (GoK, 2006). The two main industries that comprise the activities of tourism are hospitality and travel industry (Kotler, 2010).

Fwaya et. al., (2012) studied the relationship between drivers and results of performance in the Kenyan hotel industry and established that the drivers and the results of performance generally have a strong positive relationship between themselves and also with hotel performance. The authors recommended that the multidimensional constructs, results and drivers of performance have several important facets that could be studied to further illuminate future studies in this area. Owiti, (2014) studied quality management practices and or drivers of hotels in Nairobi and it was concluded that the driver that was influencing hotel performance was quality because satisfied customers would recommend others amounting to increased competitiveness and profitability. However, the study also established a moderate adoption of other strategic management drivers of hotel performance. Ayele, (2012) studied positioning strategies adopted by five-star hotels in Nairobi and concluded that five-star hotels in Kenya had adopted different drivers of hotel performance based on their strategic positioning.

2.2. Theoretical Review

2.2.1. Three Sigma's Theory of Business Model

The proponents of this theory argue that businesses decline and fail because of the assumptions that they make for the basis of their fundamental business decisions. These include: The society, markets, customers, products, technology and mission. This theory asserts that every Organization should periodically examine their fundamentals (Jim & Lazier, 1992). This means that the Government of Kenya should practically evaluate their security apparatus. The Government can have a great mission, products and the right technology at their disposal to reach out to the markets. But with all these without security then their efforts would be futile in influencing the arrival of international tourists in the country. So, it is very important for the Government to invest in proper and meaningful security so as to enable international tourist's perceive Kenya as a safe place to visit for tourism consumption. The Three Sigma's Theory of Business Model was used to analyze bed occupancy as a predictor of tourist performance index in Kenya where bed occupancy was the product and tourist performance index was the customer performance side of the model.

2.3. Conceptual Framework

Figure 1: Conceptual Framework

The conceptual framework illustrated in **Error! Reference source not found.** shows the relationship between the independent variables; bed occupancy and tourist performance index which was the dependent variable. This is based on the idea that when tourists establish that Kenya hotels have conducive bed occupancy environment, their number will increase leading to improved tourist performance index in Kenya.

3. Research Design

The study adopted descriptive survey research design, collecting data from respondents who have had practical experience with the problem under the study. The object of using descriptive survey design is to obtain insight into the relationship between variables and new ideas relating to the research problem. According to Mugenda and Mugenda (2003), a descriptive research design determines and reports the way things are. Descriptive survey design was employed because it guarantees breadth of information and accurate descriptive analysis of characteristics of a sample, which will be used to make inferences about population (Orodho, 2004). The study targeted 183 star rated hotels found in the mentioned regions specifically Coastal Circuit, Central Circuit and the rift valley circuit. The number of rated hotels in these circuits can influence generalization of findings in Kenya.

The sample drawn from every stratum was proportionate to the stratum's share of the total population. Representative sample which enabled generalization of the findings was derived from Yamane (1967) formula

$$n = \frac{N}{1 + Ne^2}$$

Where;

n = sample size

N = Population

e = precision error which is 0.05

Therefore, out of a population of 183 star rated hotels in Kenya, the sample consisted of 126 hotels from all the five classes of hotel. Where $n = 183 / 1 + (183 * 0.0025)$. Each class of hotels then contributed a proportion of the sample depending on the ratio of the number of rated hotels in each category to the total. The sample size in this study was selected based on the criteria set by Roscoe's rule of thumb Sekaran (2003) that is a sample that is larger than 30 and less than 500 is appropriate for most research, while according to Mugenda (2008), a sample size of between 10% and 40% is considered adequate for detailed or in-depth studies. The sample size in this study is 68.9% which is more than adequate. The study then used systematic random sampling technique to pick the sample based on the sample distribution as per the regions where the Star Rated Hotels are located. The study used secondary data on % of bed occupancy of the 126 hotels making up the sample size between 2013 -2019. The study also extracted tourists who visited Kenya in the same period as a measure of tourist performance index.

4. Findings and Discussions

4.1. Descriptive Statistics Tourist Visitors in Kenya

This section presents the analysis of the total number of tourists who visited Kenya in the year 2013, 2014, 2015, 2017, 2018 and 2019.

Figure 2: Tourist Trends in Kenya 2013

Source: Kenya Economic Survey (2013)

The study established that Kenya received the highest number of tourists in the months of January, July and December in the year under study with significant drop in the months of February to May and also the month of August. This finding indicated that Kenya tourist visit was not predictable within the year of the study.

Figure 3: Tourist Trends in Kenya 2014

Figure 3 presents the number of tourists who visited Kenya in the year 2014. The findings revealed that the numbers were high in the month of January, March, August and September. It is important to note that the numbers were still not based on any predictable trends.

Figure 4: Tourist Trends in Kenya 2015

The trend was similar in the year 2015 compared to 2014 with surging numbers in the month of March to June, picking in the months of July and August followed with a surge in the month of September through December.

Figure 5: Tourist Trends in Kenya 2016

In the year 2016 December recorded an improved number of the tourist above 100,000 compared to the previous years. The trend in other months was a replica of the previous years.

Figure 6: Tourist Trends in Kenya 2017

The year 2018 had an improve performance with 10 months recording above 100,000 visitors apart from April and May with July and August recording about 150,000 visitors.

Figure 7: Tourist Trends in Kenya 2017

Although 2019 had the highest performance in terms of the tourist who visited Kenya, the trend was similar with numbers recorded in 2018 with July and August recording above 150,000 tourists. The data canalized in the Figures 4.2 to 4.6 indicated that tourism picked up in the year 2017 and tremendously improved in the succeeding years of the study.

Figure 8: Tourist Visit Trends in Kenya 2013-2019

Figure 8 was used to analyze Tourist visit trends in Kenya 2013-2019. The findings revealed that the number of tourists visiting Kenya reduced in 2014 to 2016 and drastically increased between 2017 to 2019. Tourists visit a country based on several factors of which availability of conducive accommodation measured in terms of rooms and bed occupancy were the factors considered in this study.

4.2. Percent of Bed Occupancy in the Hotels in Kenya

This section presents the bed occupancy in the hotels in Kenya. The researcher extracted percentage (%) of bed occupancy of the hotels in Kenya between 2013-2019 from Economic Surveys published by Kenya Bureau of Statistics annually.

Figure 9: Bed Occupancy in the Hotels in Kenya 2013-2019

Figure 4.1: presents the results of the percentage of Bed Occupancy in the Hotels in Kenya 2013-2019. The study established that that the bed occupancy was 40% in the year 2013 which drastically dropped to 27% in the year 2014 and gradually increased in the succeeding year topping 47% and 48% in the year 2018 and 2019.

4.3. Effect of Bed Occupancy in Predicting Tourist Performance

This section presents the regression results of the effect of bed occupancy in predicting tourist performance in Kenya. The dependent variable was tourist performance in Kenya measured in terms of the total number of tourists who visited Kenya between 2013 - 2019, whereas the independent variable was bed occupancy (%).

The hypothesis postulated that bed occupancy in the hotels in Kenya is not a predictor of tourist performance. To ascertain the truth in the assumption, simple regression analysis of bed occupancy by the hotels and tourist performance measured in terms of the number of tourists who visited Kenya between 2013-2019 was performed. Bed occupancy was the predictor (x) whereas tourist performance was the predictable outcome. The results are presented in Tables 4.1, 4.2 and 4.3. Table 1 indicates that the correlation coefficient between bed occupancy and tourist performance was statistically significant ($r=0.622$, $p=0.000$). The r-square was found to be 0.49. This indicates that 49% of the variance in tourist performance can be explained by bed occupancy. Therefore 51% of the variance in tourist performance was explained by other factors outside this study.

Model	R	r Square	Adjusted r Square	Std. Error of the Estimate	Sig.
1	.222 ^a	.49	.46	4.966	0.000

Table 1: Model Summary

Table 1 shows the results of simple regression analysis of effect of bed occupancy on tourists' performance.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	431.596	1	431.596	17.502	.000 ^b
Residual	8334.815	338	24.659		
Total	8766.412	339			

Table 2: Simple Regression Analysis of the Effect of Bed Occupancy on Tourist Performance

From the Table 2 it can be seen that the F-Value significant ($F(1,338)=17.502$, $p=0.000$) implying that bed occupancy had significant effect on tourist performance. Bed occupancy therefore was capable of predicting tourist performance in Kenya. The null hypothesis H_{01} : that bed occupancy in the hotels in Kenya is not a predictor of tourist performance Kenya was rejected at .05 level of significance. This implies that bed occupancy is a reliable predictor of tourist performance Kenya. Table 4.3 present the regression coefficients of the effect of bed occupancy on tourist performance Kenya.

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.46	1.374		12.141	.000
	Bed Occupancy	4.179	.676	.622	4.184	.000

Table 3: Regression Coefficients of the Influence of Competition Related Stress on Student Athletes' Track Performance

The results indicated that the beta value was significant ($\beta=.332$, $p=0.000$). The simple regression model that can be used to predict tourist performance Kenya from bed occupancy is given by

$Y = 18.465 + 4.179X_1 + \varepsilon$ where;

Y = Tourist performance Kenya and

X_1 = Bed Occupancy

5. Conclusions

The main objective of the study was to analyze bed occupancy as a predictor of Tourism Performance Index in Kenya. The study hypothesized that bed occupancy in the hotels in Kenya is not a predictor of tourist performance Kenya. The study extracted the trends of bed occupancy of the hotels in the tourist circuit in Kenya on one hand and on the other hand the total number of tourists who visited Kenya between 2013-2019. Generally, the study established a surging trend in both the bed occupancy and tourist performance index in the year 2014 which steady rose in the succeeding years. In establishing the relationship between bed occupancy and tourist performance index, the study used linear regression analysis. The results indicate that the correlation coefficient between bed occupancy and tourist performance was statistically significant ($r=0.622$, $p=0.000$). The null hypothesis H_{01} : that bed occupancy in the hotels in Kenya is not a predictor of tourist performance Kenya was rejected at .05 level of significance. This implies that bed occupancy is a reliable predictor of tourist performance Kenya.

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