



EFFECT OF TECHNOLOGY INNOVATIONS ON STRATEGIC POSITIONING OF KENYA'S TOURISM SECTOR

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Abstract: Strategic positioning is concerned with critical decisions that determine the brand and corporate image of a firm in the market place; including the types of segments and benefits that are targeted. Hence, positioning is defined as strategy that focuses on identifying and directing resources in a particular market segment. In respect to segmentation –based strategic positioning, firms respond to demands by coming up with strategies that are different compared to other market segments. The general objective of this study was to determine the effect of technology innovations on strategic positioning of Kenya's tourism sector. The study adopted descriptive research method. The target population comprised of 363 employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife. The study used simple random sampling in the selection of 190 staff. This study used both primary and secondary data. Secondary data was obtained from the annual reports in 10 parastatals in Ministry of Tourism and Wildlife. Questionnaire was used to collect primary data (both qualitative and quantitative data). Thematic analysis was used to analyze qualitative data and the outcomes were presented in continuous or prose form. Analysis of quantitative data focused on descriptive and inferential statistics through the aid of Statistical Package for Social Sciences (SPSS ver. 22). A pilot study was conducted in Tourism Regulatory Authority. Descriptive statistics entailed computation or calculation of mean, percentage, standard deviation and frequency. Inferential statistics focused on regression analysis and Pearson correlation analysis. Person correlation analysis was used to determine the strength of relationship between elements under investigation. Regression analysis determined the existing relationship between variable under investigation. The results were presented in table and figures. The study established that technological innovation has significant effect on the strategic positioning of Kenya's tourism sector. The study recommends that the tourism sector should use a computerized system to accelerate and improve decision making, optimize internal business process and increase operational efficiency. In addition, the study recommends that the tourism sector should leverage visual media, paid ad campaigns and identify key moments on booking journey so as to effectively show case Kenya tourist attraction sites.

Key Words: Tourism, Strategic positioning, Technological Innovations

Introduction

Strategic positioning is concerned with critical decisions that determine the brand and corporate image of a firm in the market place; including the types of segments and benefits that are targeted (Cerovic & Batic, 2018). Hence, positioning is defined as strategy that focuses on identifying and directing resources in a particular market segment. With respect to segmentation –based strategic positioning, firms respond to demands by coming up with strategies that are different compared to other market segments. According to Buhalis (2016), strategic positioning is outward focused as opposed to inward

looking and recognizes market dynamics that a particular firm operates. Positioning defines a firm's specific niche or its influence in market place. Strong strategic position enables a firm to be successful in terms of achieving competitive advantages (Dujmovic & Vitasovic, 2014).

Tourism sector play a key role in economic development in a particular country in terms of creation of employment opportunities, development of infrastructure and wealth creation. Besides that tourism plays a fundamental role in world-wide image of a given state and significantly influences domestic policies of a particular state. The importance as well as influence is therefore used to measure competitiveness of tourism industry or sector. Critical understanding of ways of improving tourist attraction has become a fundamental discipline in the tourist industry (Sainaghi, 2008). Competitive positioning enables firms to come up with strategies that counteract negative and positive aspects that are imposed in the competitive market space. Therefore, strategic positioning focus on customer-oriented approaches that are used to attract more clients (tourists) and enable firms to achieve competitive advantages. However, strategic positioning has been facing various challenges in different parts of the world (Kalembe, 2015).

Strategic positioning concept is marketing communication approach that plays a tremendous role in enhancing tourist attraction or destination of interest. In positioning United States (US), Tourism Council, Japanese visitors and Tourism Council claim that tourism industry is one of the largest sectors in the world (World Travel and Tourism Council, 2016). In France, Favre-Bonte and Tran (2017) found that adoption of information and communication technology was one of the factors affecting small enterprises in the tourism sector. In addition, utilization of website has improved on strategic positioning of small hospitality enterprises within the tourism industry. In the United Kingdom, Buhalis (2016) indicate that information being the lifeblood of the tourism sector information technology has positive negative impacts in the industry. In case the current tourism industry fails to improve on its competitiveness through adoption of information technology and innovative approaches, there is possibility of exogenous players to conquer the industry thus jeopardizing the current industry.

Most of the countries in Africa benefit from tourism industry, for instance Tanzania, South Africa, Morocco, Algeria, Kenya, Egypt and Tunisia. However, the strategic positioning of tourism in these countries is not that effective leading to a decrease in the probability of these countries being considered as tourist destinations. In Ethiopia, Farhiya (2015) indicate that the factors considered by Norwegian Refugee Council (NRC) in pursuit of strategic positioning included the adoption of technological innovations.

Despite of the fact that tourism industry in Kenya is facing competition from other tourism destination, it is still one of the most preferred tourism destinations in Africa. Nonetheless, strategic positioning of the tourism sector in Kenya with respect to international platforms has been experiencing tremendous challenges. In Kenya, Awuor (2017) the study found that the ministry of East African Affairs Commerce and Tourism is tasked with the responsibility of managing East Africa Community (EAC) and regional integration affairs, developing and promoting trade policies, promoting and marketing Kenya as a tourist destination. Players in the tourism sector in Kenya have adopted technological innovations such as websites, social media (Twitter and Facebook) to advertise tourist destinations and to improve Kenya's tourism sector.

Statement of the Problem

Currently, tourism industry is one of the most lucrative and largest industries in Kenya as it contributes significantly to generation of revenue and creation of employment opportunities in global economy. In the year 2017, the tourism sector contributed 3.7% of the national GDP. In addition, the sector directly provided 399,000 employment opportunities (3.4% of the total employment) (World Travel and Tourism Council, 2017). However, the decline in market prices of the primary products in international market has made the country to divert in tourism as alternative economic activity. Nonetheless, the tourism sector is the second revenue earner, the country has experienced technological challenges in strategic positioning of the tourism sector hence reduction of tourist arrivals.

Over the years, the tourism sector has been facing challenges in its performance in terms of number of foreign visitors and hotel occupancy as a result of factors such as terrorism and post-election violence among others. The incidents have increased safety threats among international tourists, thus, affecting Kenya as one of the tourist destinations. The bombing of the US embassy in the year 1998 led to a decline of 7% in tourism sector. Moreover, electioneering periods has negative impact on performance of tourism industry in Kenya. Following the post-election violence in December, 2007 the arrivals of tourists declined by 61.6% from a period of December 2007 to February 2008. The same incidence was witnessed in March, 2013 election thus led to decline in arrival of international tourists by 40 percent in the period of December 2012 and April 2013 and begun to pick up in June 2013 (Kagure, 2018).

During the period of July to September 2017, Kenya witnessed a decline in reservation of tourism hotels, motels and lodges not forgetting to mention other tourist-related enterprises in the country. According to Kebede (2018), hotel reservation declined by 20 to 60% in Coastal region due to booking cancellation. The claim led to temporary closure of more than 20 tourist- hotels and rendered more than 20,000 individuals as jobless between September and December 2017. In an effect to strategically position the country as a tourist destination in the world, the government of Kenya has formed various institutions including Brand Kenya, Kenya Tourism Board, Tourism Fund and Tourism Finance Corporation. However, despite the use of many strategies including branding and marketing, the performance of tourism in Kenya is still low.

Multitudes of researchers in Kenya have conducted studies relating to challenges facing strategic positioning. For instance, Wanjiku (2018) conducted a study on the effect of innovation (product innovation, process innovation and service innovation) on sustainability competitive advantage of hospitality industry with a specific focus on Safari Park Hotel in Kenya. However, this study does not outline the effect of technology innovations on strategic positioning of Kenya's tourism sector. This study therefore sought to examine the effect of technology innovations on strategic positioning of Kenya's tourism sector.

Theoretical review

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a technology theory that originates from Venkatesh *et al.* (2003). It is a unified model developed from eight acceptance technology models. The rapid development of technology led to the development of the new model (Koral & Akay, 2017). The UTAUT model sought to showcase technological acceptance and utilization as observed in some contexts like in consumer technologies. Later, UTAUT 2 was developed as an improvement of UTAUT. UTAUT 2 has seven factors that influence behavior, use

and intention including performance expectancy, facilitating condition, habit, price value, hedonic motivation, social influence, and effort expectancy. The UTAUT 2 was used in this study because it is the most recent and it as developed out of improvement of UTAUT 1 (Koral & Akay, 2017).

Behavioral intention is a person's intention to act in a certain way which can be used to predict other behaviors especially when the person's actions are voluntary. Additionally, behavioral intention is the probability of performing an act and also the cause of a given usage behavior (El-Masri & Tarhini, 2017). It is therefore true to say intentions are the motivational influencers of behavior and they also show the effort individuals are willing to put in to act in a given behavior. Further, behavioral intention was found to be the key factor that affected the perception of an individual to adopt a particular technological innovation (Isaias, *et al*, 2017).

Performance expectancy highlights the extent to which individuals gain after using technology to complete a given activity. Effort expectancy is the usage simplicity of a technology. Social influence is a person view that significant others believe the individual should adopt the information system. Facilitating conditions refer the perception that organizational and technical infrastructure gives the needed support to ensure successful usage of the technology. Hedonic motivation is the fun or pleasure derived from using a technology (Harris *et al*, 2018).

In relation to this study, the theory is used to explain the uptake of technological innovation is based on fulfilling various technological and human requirements. This study used the UTAUT model as assessment framework and to understand the organizational behavioral intention on acceptance and use of technology to develop computerized system so as to improve on its competitive advantages in the tourism sector (Liebenberg, Benadé & Ellis, 2018).

Conceptual framework

A conceptual framework refers to a diagrammatic illustration of concepts that provide explicit diagrammatic explanation on the relationship between dependent and independent variables. Conceptual framework refers to visualization of theoretical aspects of a particular research, in a diagrammatical manner so as to show the existing relationship between dependent and independent variable. The independent variable in this study was technology innovations. The dependent variable was strategic positioning.

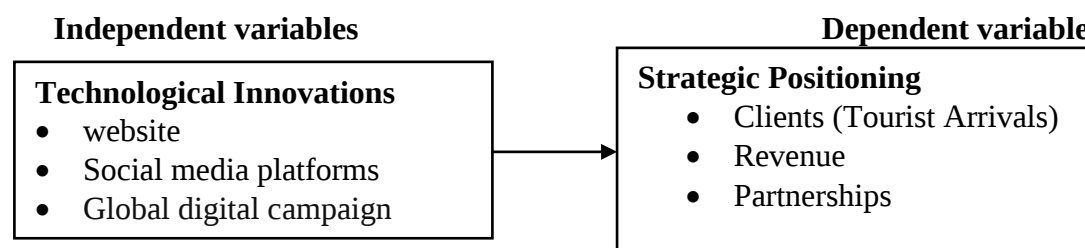


Figure 1: Conceptual Framework

Technological Innovations

The Magical Kenya Prepaid Travel Card is a culmination of the partnership between KTB and UBA to promote travel to Kenya by travelers across the African continent. The card, which is designed with an embedded loyalty platform, allow accumulation and transfer of points within the

hospitality sector and encourage tourists to travel freely (Magical Kenya, 2019). Social media is a major marketing tool that is being used extensively, and in various languages, to sell the destination and let consumers know that Kenya is safe and stable. To shed more light, Magical Kenya is taking advantage of technology to drive its message locally and internationally and using all available means, from Facebook to Twitter, Flickr and YouTube, to reach as many people as possible. On Facebook, Magical Kenya posts major events happening in the country such as the recently concluded Rhino Charge and the upcoming Lewa Marathon, while visitors comment on their experiences in Kenya as well as post their photos (Sausmarez, 2019).

The Magical Kenya Prepaid Travel Card targets West African nationals who travel for corporate, education, medical as well as leisure purposes within Africa and is well distributed across the UBA Bank's footprint to customers and potential customers. Through selective criteria of age, deposit balance, number of types of accounts held by customer or corporate accounts the target list of customers are engaged and enticed through registration campaigns as well as convenience for everyday use both in home market and when travelling to Kenya.

Huawei, Safaricom and Kenya Tourism Board have partnered to launch a global digital campaign showcasing Kenya as seen from the peaks of Safaricom Base Stations. The campaign dubbed "Kenya: Exploring a new point of view" features exclusive new images of Kenya and showcased across multiple digital communication channels globally showcasing the modernity, diversity and beauty of Kenya to millions around the world (Magical Kenya, 2019). This translates to an untapped market of over 5 million card users in Nigeria, Ghana and Senegal. Tourism activity in the modern age is increasingly being shaped by price comparison and technology. By leveraging on innovative solutions provided by services such as the Magical Kenya Travel Card, tourism can not only lead the new frontier of fairer, stronger and more sustainable growth, but has the potential to become one of the most effective agents of development. The card is also used locally as holders are able to earn loyalty points and exclusive discounts (Magical Kenya, 2019).

Strategic Positioning

Strategic positioning focuses on various steps that guide development the best approaches that enable a firm to gain competitive advantages. This process ought to be continuous so as to enable a firm to effectively cope up with dynamics in market environment such as change in customers' needs and competitors' tactics (Ayele, 2016). Regions that relay on tourism as the main source of economic activity are not much known by both local and international tourists, hence, there is need to create a sense of place on travelers' mental maps. Most travelers receive notification on tourist destination and this enables them to effectively exploit various destinations when they are on vacation. Strategic positioning also comprise of psychological position that focuses on how information is conveyed to the target market (Buhalis, 2016). Psychological position is also based on strategies that are adopted when creating unique product image which the intent of attracting or improving tourist attraction.

Otherwise, subjective positioning focuses on subjective attributes of a particular tourist destination. It is also the perception of tourist pertaining to a particular destination or locality. However, the perceptions may not reflect on the actual status of the targeted destination. Positioning by price or value of international destinations sometimes becomes ineffective since decline of prices result to lowering of the quality of services or products (Whitney, 2018).

Empirical Review

Ioana (2014) researched on the effect of social media on performance of tourism and hospitality industry in Australia. The study adopted descriptive research design. The study found that social media has significance influence on performance of tourism and hospitality industry in Australia. The results also revealed that marketers used social media platforms to improve on customers' satisfaction, brand awareness and engagement of clients thus led to improvement of performance of tourism industry. Nedim, Pinar and Yunus (2014) determined the effect of technological innovation on performance of small and medium sized tourism firms in Turkey. The study employed descriptive research method and found that technological innovation has significant effect on performance of SMEs in the tourism sector. The results also revealed that utilization of technological innovation led to improvement in customers' experience in the sector consequently enable firms to gain more competitive advantages.

Kara and Sullivan (2015) assessed the effect of utilizing social media on performance of tourism sector in Australia. The researchers used descriptive research method and established that utilization of social media platforms has significant effect on performance of tourism sector. Moreover, the study found out that the use of social media platforms improve customers' engagement with respect to feedback provision on customers' experience and making of informed decision pertaining to tourist destination. Further, the study established that social media enabled trip advisors to effectively engage with their customers. Further, the study established that tourists used social media platforms to seek for information relating to their destination preference.

Minazzi (2015) conducted a study on the effect of social media marketing on performance of tourism industry in USA. The study adopted descriptive research method and established that there was a significant relationship between social-media marketing and performance tourism industry. The study also found that tourism industry has not exploited the use of social media platforms to enhance customers' experience.

Ruhet and Eda (2017) conducted a study in the effect of market –oriented innovation in tourism industry in Turkey. The study employed descriptive research method and established that there was significant relationship between market-oriented innovation and performance of tourism sector. The results also revealed that market-oriented innovations result to opening up of staturated markets thus resulting to improvement of performance of tourism sector. Further, the study found that firms that focused on market-oriented innovation performance better than those which had not adopted the market-oriented innovation. Izabela and Anca (2016) determined the role of technological innovation in Museums competitive advantage in Romania. The study adopted exploratory research method. The study found out that technological innovation has significant effect on Museums competitive advantage. The results also revealed that adoption of technological innovation enhanced marketing of museums, customer experience and effective utilization of resources.

Ibingira, Rurangwa and Mutwiri (2017) determined the effect of innovation strategies on organizational performance in Rwanda. The study employed as used descriptive research design and found that process innovation, service innovation and organizational Innovation have significant effect on organization performance. Rob, Rosanna and Dimitrios (2009) researched on application of technology innovations in hospitality and tourism industry. The study employed content analysis method. The study found out that technological innovation enabled the tourism industry to collect and analyze data such customer experience or feedback and tourist destination and the information aid in making of critical decision that improve performance of tourism sector. The study also found out that

utilization of information technology enable firms in tourism sector to market tourist destination thus lead to improvement in the number of local and international tourists.

Wanjiku (2018) conducted a study on the effect of innovation (product innovation, process innovation and service innovation) on sustainability competitive advantage of hospitality industry, a case of Safari Park Hotel in Kenya. A descriptive research was adopted because the study was aimed at collecting information from respondents. The study found out that innovation has significant effect on firms' competitive advantage. The study found that the firm has done major investment including the acquisition of modern cars for safer transportation of the clients as well as availed multiple payment options which are faster and secure. Further, the results revealed that installed innovative communication apps have not made a big impact on communication between the client and the employees. Almaz (2016) conducted a research on strategic innovative activity on performance of tourism sector in United Arab Emirate. The study adopted descriptive research design. The study found that strategic innovative activity has significant effect on performance of tourism sector. The results also revealed that innovation in marketing strategies, product and service quality lead to improvement in performance of tourism sector.

Research Methodology

The study adopted descriptive research design. The target population of comprised of all 363 staff working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife. The sample size was determined using Slovin's Formula. Slovin's formula was selected as it enabled the research to appropriately calculate the sample simple of this study.

The formula is as follow:

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

Where by: n = no. of samples; N = total population; E = error margin / margin of error (0.05)

$$n = \frac{363}{1 + (363 * 0.05^2)}$$

$$n = 190$$

Table 1: Sample Size

Organization	Target Population	Sample Size
Bomas of Kenya	27	14
Brand Kenya Board	32	17
Kenya Safari Lodges and Hotels (KSLH)	32	17
Kenya Tourism Board (KTB)	68	36
Kenya Tourist Development Corporation	28	15
Kenya Utalii College	56	29
Kenya Wildlife Services	32	17
Kenyatta International Convention Centre	43	23
Tourism Fund	21	11
Tourism Regulatory Authority	24	13
Total	363	190

The study used simple random sampling in the selection of 190 staff. Simple random sampling is used in selecting selection of the samples since it enabled the researcher to accurately extract samples the represent the entire population under investigation (Bhattacharjee, 2012). Simple random sampling enabled the researcher precisely select samples that represented the entire unit of observation.

This study used both primary and secondary data. Secondary data was obtained from the annual reports in 10 parastatals in Ministry of Tourism and Wildlife. Semi structured questionnaires was administered to the respondents so as to facilitate collection of primary data. Pilot Test was conducted to assess the validity and validity of the research instrument. The pilot test was conducted in Tourism Regulatory Authority and used 10 percent of the sample size. The researcher improved on content validity through consulting professional such as university supervisors and staff working in tourism sector. Cronbach's alpha was used in this study to measure internal consistency. The researcher considered Cronbach alpha above 0.7 as reliable or acceptable.

Questionnaire was used to obtain both qualitative and qualitative data. Thematic analysis was used to analyse qualitative data. Otherwise, inferential and descriptive statistics was used to analyse quantitative data through the aid of statistical package known as SPSS version 22. Inferential statistics included regression analysis and correlation analysis. The results were presented in tables and figures (pie chart and graphs). Since the independent variable in this study was one, the regression model was as follows;

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Whereby; Y = Strategic positioning; B_0 = Constant; B_1 =Coefficients of determination; X_1 = Technology innovations; ε = Error term

Research Findings and Discussions

The sample size of the current study was 190. The researcher distributed a total of 190 questionnaires among the respondents. Only 142 participants filled their questionnaires and returned them to the researcher within stipulated timeframe. Therefore, the response rate of the study was 74.73%. Fincham (2010) noted that a response rate above 70% is considered as adequate for data analysis and making of inferences and this made the response rate of this study to be within acceptable limit.

Demographic Information

Demographic information of the participants comprised of their gender, highest level of education, duration in the organization and area of work.

Gender of the Respondents

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were asked to indicate their gender. The results were as shown in Figure 2. The results show that 62% of the respondents were female while 38% were male. This implied that employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were female.

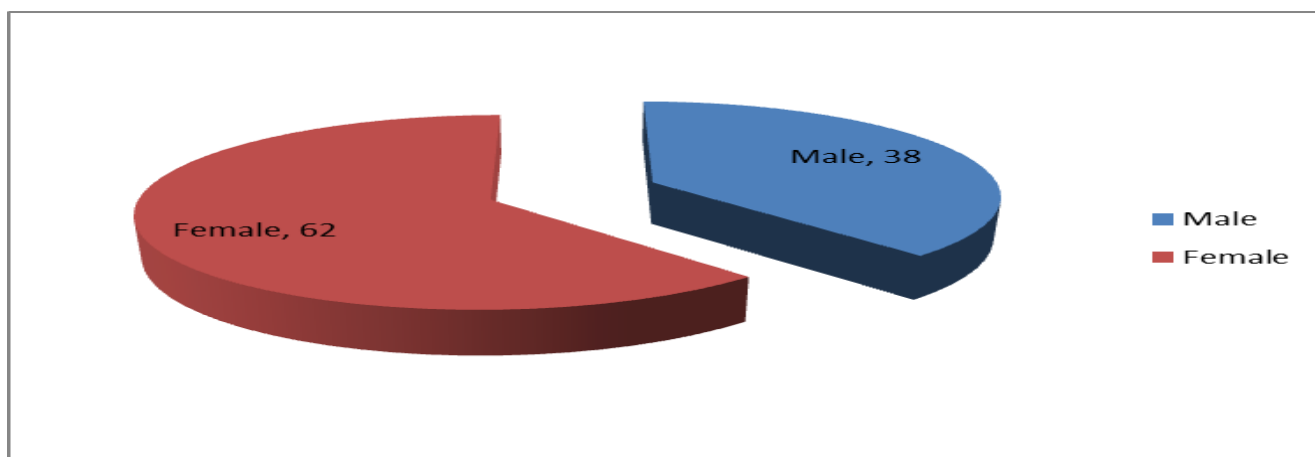


Figure 2: Gender of the Respondents

Highest Level of Education

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were requested to specify their highest level of education. The results were as shown in Figure 3. According to the results, 63.7% of the respondents specified that they have bachelor degrees while 37.3% indicated that they have master degrees. This implied that most of the employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were literate enough to provide substantial information during data collection process.

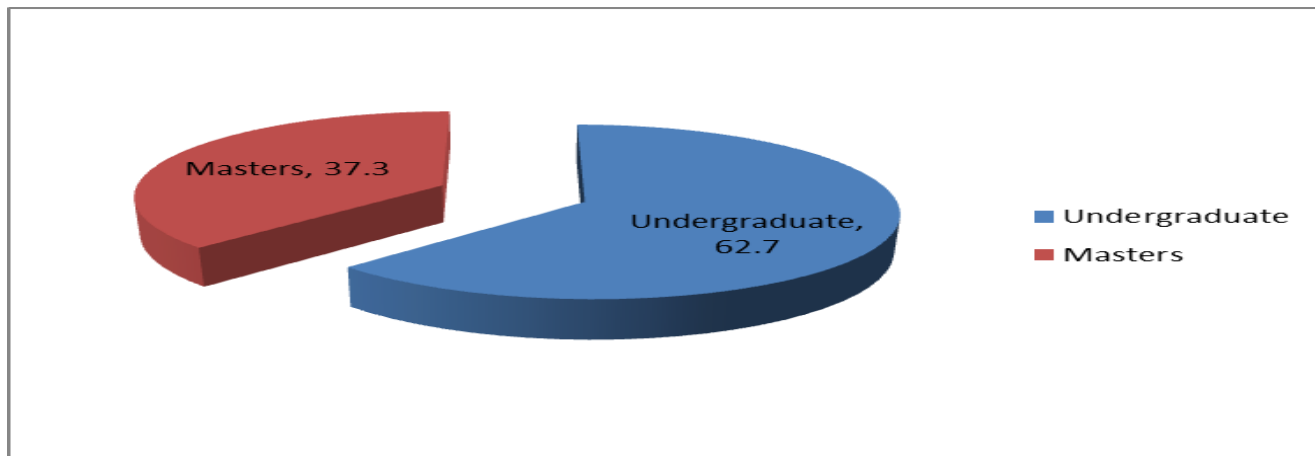


Figure 3: Highest Level of Education

Duration of the Staff in the Organization

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were requested to indicate for how long they have been working in the organization. The results were as shown in Figure 4. The results show that 39.4% of the respondents have been working in the organization for a period of 5 to 10 years, 31% specified less than 5 years, 22.5% indicated 12 years and above and 7% pointed out between 6 and 11 years. This implied that most of the employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were experienced enough to provide substantial information.

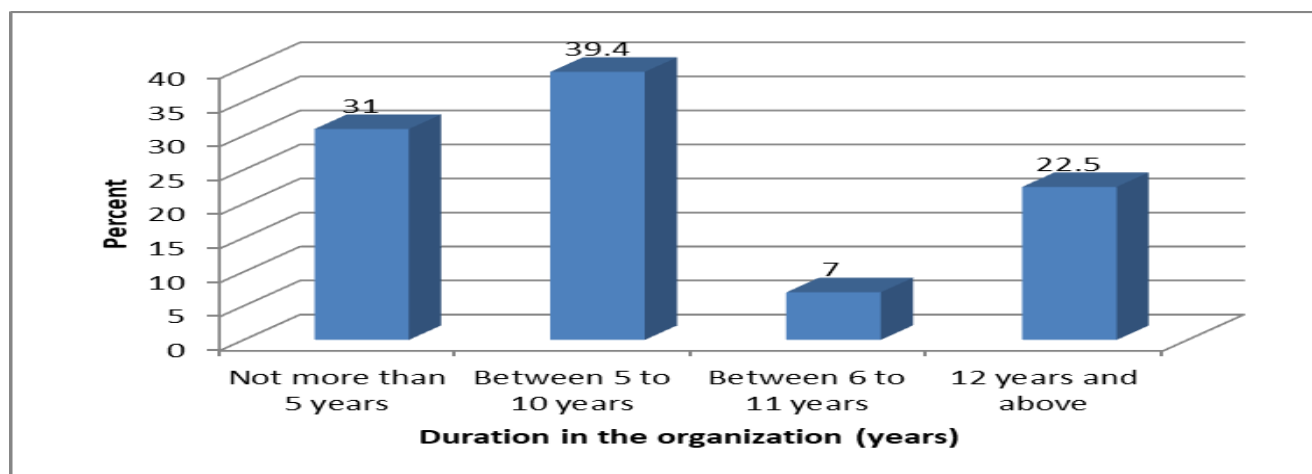


Figure 4: Duration of the Staff in the Organization

Respondents' Area of Work

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were asked to indicate their area of work. The results were as shown in Figure 5. According to the results, 69% of the respondents specified that they were working in marketers, 14.8% pointed out that the working as finance managers, 8.5% specified human resource managers and 7.7% indicated ICT managers. This implied that most of the employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were marketers.

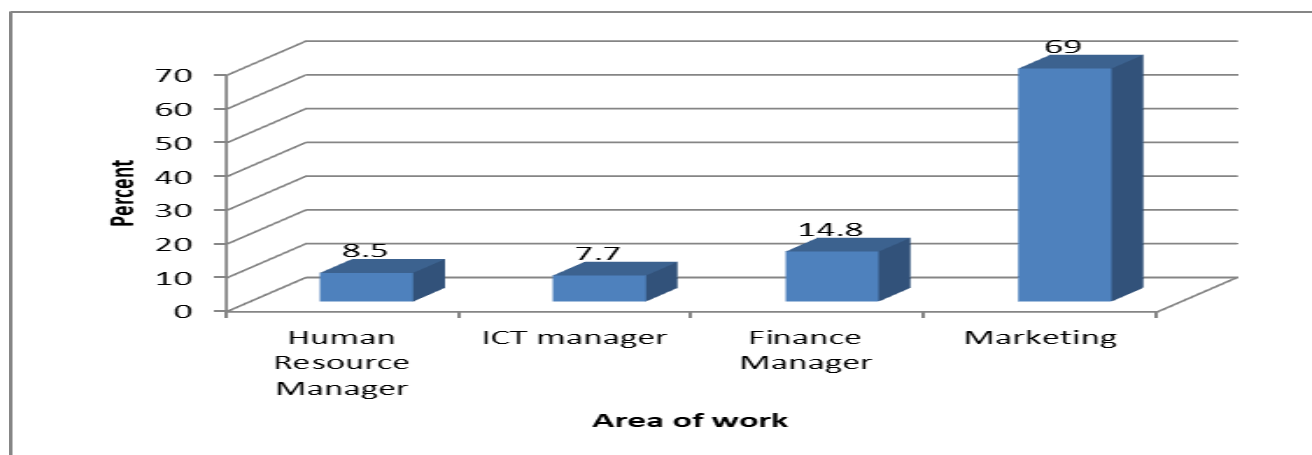


Figure 5: Respondents' Area of Work

Technological Innovation

The respondents were asked to indicate their level of agreement of various statements relating to the effect of innovation and technology on strategic positioning in their organization. The results were as shown in Table 6. The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife agreed that their website is well maintained ($M=3.880$, $SD= 1.145$). They also agreed that the ministry has designed website to let tourists explore Kenya destination sites ($M=3.943$, $SD= 0.980$). Moreover, they agreed that the website is responsive to the needs of tourists ($M= 3.570$, $SD= 1.138$). However, they moderately agreed that the organization use Facebook to market its brand

($M=3.422$, $SD= 1.450$). Besides that, they agreed that Twitter is used to let tourists know that Kenya is safe ($M=3.570$, $SD= 1.390$). Further, they moderately agreed that YouTube is used to post major events happening in the country ($M=3.021$, $SD= 1.586$). The respondents agreed that the ministry has partnered with other companies to launch a global digital campaign showcasing Kenya tourist ($M=3.626$, $SD= 0.730$). The staff agreed that leveraging on innovative solutions leads to sustainable growth in tourism sector ($M=3.908$, $SD= 0.733$). Furthermore, they agreed that Tourism sector in Kenya offer exclusive discounts to international tourists ($M=3.781$, $SD= 1.203$).

The findings are in agreement with the findings of Nedim, Pinar and Yunus (2014) that most of organizations in tourism sector regularly maintain their website to improve on customer experience. The finding is in line with the finding of Wanjiku (2018) that the ministry of tourism has designed website to let tourists explore Kenya destination sites. The findings conform to the findings of Izabela and Anca (2016) that most organizations in tourism sector have a functional website to improve on their strategic positioning. The findings are in line with the findings of Ruhet and Eda (2017) that utilization of social media platform improves on strategic positioning of tourism sector. The findings conform to the findings of Kara and Sullivan (2015) that conducting global digital campaign improve on strategic positioning of tourism sector.

Table 6: Technological Innovation

	1	2	3	4	5	Mean	Std. Deviation
Our website is well maintained	7.0	0.0	29.6	24.6	38.7	3.880	1.145
The ministry has designed website to let tourists explore Kenya destination sites	0.0	14.1	8.5	46.5	31.0	3.943	0.980
The website is responsive to the needs of tourists	7.0	7.7	29.6	32.4	23.2	3.570	1.138
The organization use Facebook to market its brand	14.8	15.5	14.8	22.5	32.4	3.422	1.450
Twitter is used to let tourists know that Kenya is safe	14.8	7.7	14.8	31.0	31.7	3.570	1.390
YouTube is used to post major events happening in the country	30.3	8.5	14.8	21.8	24.6	3.021	1.586
The ministry has partnered with other companies to launch a global digital campaign showcasing Kenya tourist attraction sites	0.0	7.0	31.0	54.2	7.7	3.626	0.730
Leveraging on innovative solutions leads to sustainable growth in tourism sector	0.0	0.0	31.7	45.8	22.5	3.908	0.733
Tourism sector in Kenya offer exclusive discounts to international tourists	7.7	7.7	15.5	36.6	32.4	3.781	1.203

Challenges Related to Technological innovation

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were asked to indicate challenges related to technological innovation in the organization. The results were as shown in Table 7. According to their views, they specified that the challenges include: low absorptive capacity for technological innovation (39%), high rate of closure of SMEs in tourism sector thus deterring knowledge accumulation (27%) and collaborative relations and high elasticity of income (24%), seasonal and volatile risk demand of unstable market for technological innovation and strategic incrementalism (32%).

Table 7: Challenges Related to Technological innovation

Challenges Related to Technological innovation	Frequency	Percent
Low absorptive capacity for technological innovation,	39.00	27.46
High rate of closure of SMEs in tourism sector thus deterring knowledge accumulation	27.00	19.01
Collaborative relations and high elasticity of income	24.00	16.90
Seasonal and volatile risk demand of unstable market for technological innovation	32.00	22.54
Total	142	100.00

Ways of Improving Technological Innovation

The employees working in the headquarters of the 10 parastatals in the Ministry of Tourism and Wildlife were requested to suggest on ways of enhancing business intelligence in the organization. The results were as shown in Table 8. They suggested that technological innovation can be improved through create condition for technological innovation (45%), educating staff on the importance of technological innovation (42%), learning new intellectual skill, create a creative workplace environment, encourage collaboration, increase awareness on existing technological problems (30%) and ensure availability of resource to encourage generation of innovation ideas (25%). The findings are in agreement with the findings of Kara and Sullivan (2015) that increase awareness on existing technological problems; educating staff on the importance of technological innovation and provision of on job training improve on technological innovation.

Table 8: Ways of Improving Technological Innovation

Ways of Improving Technological Innovation	Frequency	Percent
Create condition for technological innovation	45.00	31.69
Creation of a creative workplace environment	42.00	29.58
Increase awareness on existing technological problems	30.00	21.13
Ensure availability of resource to encourage generation of innovation ideas.	25.00	17.61
Total	142	100.00

Inferential Statistics

Correlation Analysis

Pearson correlation analysis was used to determine the strength of relationship between independent variable (technological innovation) and dependent variable (strategic positioning). Pearson correlation coefficients range between 0 and 1. Taylor (2018) guide was adopted during the study where by 0.80 to 1.00 depicts very strong relationship, 0.60 to 0.79 depicts strong relationship, 0.40 to 0.59 depicts moderate and 0.20 to 0.39 depicts weak. The results were as shown in Table 9. Further, the results show that there is a strong relationship between technological innovation and strategic positioning of Kenya's tourism sector ($r=0.751$, p value $=0.000$). The relationship was considered significant since the p value (0.000) was less than 0.05 - the significant level. The finding is in agreement with the finding of Ruhet and Eda (2017) that there is a strong relationship between technological innovation and strategic positioning of organizations in tourism sector.

Table 9: Correlations Coefficients

		Strategic positioning	Technological innovation
Strategic positioning	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	142	
Technological innovation	Pearson Correlation	.751	1
	Sig. (2-tailed)	.000	
	N	142	142

Regression Analysis

The researcher used multivariate regression analysis to determine the relationship between independent variables (technological innovation) and dependent variable (strategic positioning). The model summary was used to determine variation in the dependent variable (strategic positioning) that could be explained by independent variable (technological innovation). The R square was 0.2632. This implies that 26.32% of the variation in the strategic positioning could be explained by independent variable (technological innovation) while the remaining percentage could be explain by other factors not studied in the study.

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.513	0.2632	0.2566	0.10149

The ANOVA was used to determine whether the model was a good fit for the data. As shown in Table 4.16, the F calculated is 573.664 and the p value is 0.000. The F-critical distribution table of 0.05 was used to determine the F critical which was 2.420. Since the F calculated 573.664 is greater than the F critical (2.420) and the p value 0.000 is less than 0.05, the model is considered as a good fit for the data. It shows that there is a significant relationship between dependent variable (strategic positioning) and independent variables (technological innovation).

Table 11: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.347	1	51.347	573.664	0.000
	Residual	12.531	140	0.090		
	Total	63.878	141			

Further, the results revealed that technological innovation has significant effect on the strategic positioning of Kenya's tourism sector ($\beta_1 = 0.402$, $t = 7.444$, $p \text{ value} = 0.001$). The relationship was considered significant since the p value 0.001 was less than 0.05 (significant level). The findings are in line with the finding of Ruhet and Eda (2017) that technological innovation measured in terms of social media platforms and global digital campaign has significant effect on strategic positioning of organizations in tourism sector. The findings also concur with Ioana (2014) findings that social media

platforms and websites improve on customers' satisfaction, brand awareness and engagement of clients thus led to improvement of performance of tourism industry.

Table 12: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.349	.085		4.105	.023
Technological innovation	.402	.054	.395	7.444	.001

Conclusion and Recommendations

The study concludes that technological innovation has significant effect on the strategic positioning of Kenya's tourism sector. The study found that website, social media platforms and global digital campaign have significant effect on the strategic positioning of Kenya's tourism sector. The study found that leveraging on innovative solutions leads to sustainable growth in tourism sector. The study established that the ministry has partnered with other companies to launch a global digital campaign showcasing Kenya tourist attraction sites.

The study found that the organization has a computerized system that enables users to easily and selectively extract data. Hence, the study recommends that the tourism sector should use a computerized system to accelerate and improve decision making, optimize internal business process and increase operational efficiency.

Further, the found that the ministry has partnered with other companies to launch a global digital campaign showcasing Kenya tourist attraction sites. Therefore, the study recommends that the tourism sector should leverage visual media, paid ad campaigns and identify keep moments on booking journey so as to effectively show case Kenya tourist attraction sites.

Suggestions for Further Studies

The general objective of this study is to determine the effect of technology innovations on strategic positioning of Kenya's tourism sector. However, the research was limited to tourism sector and hence its findings cannot be generalized to other sectors in Kenya. Therefore the study recommends that further studies should be conducted to other sectors in Kenya including the manufacturing sector, insurance sector, banking sector among others. The study also found that 26.32% of the variation in the strategic positioning could be explained by technological innovations. Hence, the study recommends that further studies should be conducted to account for the remaining percentage.

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