techniques. OECD and Lusambo [6,7] reported that travel cost method is an important technique of evaluating demand for recreation facilities and it have improved considerably since the earliest studies were carried out both from an empirical and theoretical point of view. e method is likely to work best when applied to the valuation of a single site and it is limited use for valuing anything other than recreation sites and fascinating species that provoke travel behavior. us the most credible application to date has involved local and international travel behaviour of visiting recreation sites such as national park [6].

Problem statement: orough literature search reveal that in Africa particularly Tanzania, the authority managing environmental resources/service have made an e ort to set the fees to access their resource but still there is scanty information on the pricing strategy that consider both the value of the resource and re ective understanding of consumer behavior speci cally the consumer perception on quality of services which results to the management failure to predict the future

Data collection: Both primary and secondary data were collected for this study.

Primary data: e primary data were collected through interviews using a survey questionnaire which is the main tool in acquiring the

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dominate by having income ranging from 35001 to 60000USD per annum, followed by 23% of respondents having annual income ranging from 10001 to 35000 USD and 19.4% were respondents with annual income ranging from 60001 to 85,000USD this indicate that majority of the tourists are in the middle income level of the workforce from the distribution by age. Moreover the study shows that income status is among the factor that influence participation on recreation activities and middle income earners are the one participating much in recreation activities at KINAPA. Torkildsen [27] clarify that recreation activity which require investment reflects a direct relationship between the level of income and amount of participation, such recreation includes camping, hunting and hiking. Additionally Sapari et al. [23] make clear that in general, as income increases, the purchasing power becomes higher which enables individuals to participate in more recreational activities; also people may shift their choice to better destinations. Thus having such this information helps the management of park to identify the ability of visitors to pay for recreational fees that could be used for maintenance and conservation purpose.

Nationality of respondents: Concerning the nationality of visitors recreating at KINAPA and on the basis of sampled visitors the study indicates that visitors are from over 39 countries from different

were from di erent region of the world and also this nding suggests the need for much strategically advertisement of KINAPA to di erent continents this will ensure more visitors to the site.

Recreation demand function, consumer surplus of the visitors and Total Recreation Value of KINAPA

Recreation demand function: Semi log independent model was then used to obtain coe cients of estimates as shown on Table 5.

is 89.3% whereas the adjusted R squared is 89.1%. Statistically this nding implies that about 89.3% of the total variation in the response variable is explained by the selected model and express the strength of the model. Ho [35] pointed out that a measure of strength of the computed equation or function is R- squared, sometimes called the coe cient of determination and it is simply the square of the multiple correlation coe cients representing the proportion of variance accounted for in the dependent variable by the predictor variable. Additionally Woodhouse [36] enlighten that adjusted R-squared is a modi ed R-squared and improved measure of the overall t of a multiple regression relationship.

Consumer surplus and Total Recreation Value of KINAPA: e consumer surplus is 925 182 TZS (USD 571.10) per day of stay in the park for a representative tourist while the mean visitor WTP per one day of a visit is 837 280.80 TZS (USD 516.84). e total recreation value for all sampled visitors for one average length day of stay in the park as represented by equation 9 is 344 959 689 6 TZS (USD 212 938.08). Since the mean length of stay for a visitor per trip is 6.927 (calculated directly from data's sample) therefore the total recreation value for sampled visitors per trip is 2 389 535 770 TZS (USD 1,475,022.08). Additionally, based on KINAPA projection on visitors' statistics of 54 168 visitors for 2013/2014 the total recreation value of the park for one calendar year as shown by equation 10 is projected to be 314 165 955 200 TZS (USD 193,929,602).

Consequence of change in access fee structure on the demand of visitors to the park: Among the objective of this study was to examine how di erent user fees in uence the consumer surplus and the visitation rate at KINAPA. By using recreational demand function, di erent entry fees with equal range were introduced into the function resulting in changes on travel per recreation costs. e simulation resulting into sets of estimated number of visitation rate corresponding to di erent entry fees as clearly shown in the Table 6 and Figure 3 with assumption that the park authority has not introduced any entry fee for visiting the site. Figure 3 also as a recreation demand curve experience the feature of any other demand curve for other goods or services, that is, it reveal the inverse relationship between visitation rate and entry fees.

However at the middle point of recreation demand curve the entry fee that will maximize the revenue collection and thus the value of the park was estimated to be 90 396 TZS (USD 55.8) corresponding to visitation rate of 8.85 and a consumer surplus of 1 411 149.6 TZS

on Table 7 above. 51.9% and 20.3% of visitors responds to good and very good options. ese results suggests that park management have meet visitors expectation such as provision of best service for them, well conserved natural environment of Mt. Kilimanjaro and the whole scenery o ered by the Kilimanjaro National Park. is nding is in line with the ndings of Bushel et al. [37] who reported that Park visitors are satis ed and increase the use of the park as management better serves their need. Kaltenborn et al. [38] give explanation that it appears that visitors to National park perceive the area as a well-managed with good opportunities for encountering magni cent wildlife, landscape and an area with environment capable of producing high quality nature tourism experiences. Furthermore Woodside et al. [39] clarify that when visitors satis ed it usually indicates the measure of the t between what is wanted by visitors and what is provided by management, thus representing the leading criterion for determining the quality that is actually delivered to the visitor through the products/services available at the area.

Guiding and interpretation capacity: Mak [40] pointed out that from tourism perception tour guide are the path nders, animators, tour leaders, and mentors. Ap et al. [41] and Heung [42] also make it clear that tour guide as employees of tour operators, they are representative characterizing the image and reputation of the company, reconcile between the host community and its visitors, interpreters of destination culture and heritage and the salespersons who sell the next tour.

Table 7 also present the results of the perception of visitors on the aspect of guiding capacity and interpretation of tour guide where a total of 82.2% of visitors rank the aspect as good and very good. is means that the tour guides as employee of tour operators and tour agencies that have got a license to conduct recreation activities at Mt. Kilimanjaro execute their responsibility with an outstanding attitude toward visitors, for example interpretation of attraction, management of visitors activities and behavior following park regulations, giving information on local facilities, eagerness to assist and understanding the speci c needs of visitors. is nding is supported by Rabotic [43] who make clear that successful management of visitors' dynamics represent the guarantee for achieving certain degree of satisfaction among the tour participants.

However 17.8% of visitors rank the aspect of guiding and interpretation capacity of tour guide on three options as fair, poor and very poor. According to visitors several weakness upon tour guide have

been identi ed including; insu cient practical guiding skills, poor presentation and communication skills and less interpretive knowledge of the geography, history and resources present at the area.

Water supply and sanitation system: With regards to water supply and sanitation system, the attribute were dominated by 45.1% of visitors who were dissatis ed as they responds on poor (6.8%) and very poor (38.3%) choice. 29.1% of visitors show that they were satis ed and they reply to good (13.6%) and very good (15.5%) choice whereas 25.8% of visitors responds on fair choice. is result suggests that infrastructure system speci cally on water and sanitation system requires special consideration particular on improvement so as to meet International standards and thus visitor's satisfaction.

Quantity and quality of park facilities: Adequate park facilities permit visitors to get pleasure from the protected areas system in a well, safe and environmentally sensitive way. ese park facilities concerned in this study includes; linking roads, toilets and shower services, huts, camping sites and entry gates. Concerning the above attribute, 49.3% of visitors included in the sample were satis ed with the quantity and quality of the service provided by ple wiCa1Ss sa in tCa1Ss saisitor's satisfaction.

Citation:

(iv) More research based on economic valuation of recreation use value is recommended to other National Parks since clear understanding of the value of the existing natural resource always trigger the proper management and allocation of resource.

Acknowledgements

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