

**INFLUENCE OF DESTINATION DIMENSIONS ON TOURISM
SUSTAINABILITY IN SELECTED SITES OF NANDI COUNTY, KENYA**

BY

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DECLARATION

DECLARATION BY THE STUDENT

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DEDICATION

I dedicate this work to my family, my parents, Mr. and Mrs. Elkana Talam, Mr. and Mrs. Hosea Bargoiyet, my husband Barnabas Kibet Biwott and children for the entire support they gave me during my academic journey.

ABSTRACT

Sustainable tourism is key in any destination because it improves and gives chances for continuity in tourism development. However, poor road networks, decrease in number of tourists in some of the destinations coupled with low revenue collection from tourism related activities have posed big challenges in supporting tourism development in Nandi County. The purpose of this study was to determine the influence of destination dimensions on tourism sustainability in selected sites of Nandi County, Kenya. Particularly, to determine the influence of attractions, accessibility, accommodation and amenities on tourism sustainability. Hence, hypothesis constructed from the objectives above. Expectation Confirmation and Equity theories guided the study. A sample size of 239 was taken from a population of 598 visitors. Stratified and simple random sampling were used. Questionnaires and interviews were used to collect data. A total of 239 questionnaires were disseminated and 172 were dully filled and returned. Data was analyzed using both descriptive and inferential statistics, including percentages, frequencies, mean, and standard deviation, as well as Pearson correlation analysis and standard multiple regression. Statistical Package for Social Science (SPSS) version 21 aided data analysis. Reliability for research instruments was tested using Cronbach's Alpha coefficient which was at 0.738(73.8%) which was above the minimum value of 0.70 (70%). The findings showed that destination dimensions of Attractions ($\beta_1= 0.51, p < 0.05$), Accommodation ($\beta_2= 0.73, p < 0.05$), Accessibility ($\beta_3= 0.75, p < 0.05$), and Amenities ($\beta_4= 0.23, p < 0.05$) had significant and positive effect on tourism sustainability. The study concluded that Attractions, Accommodation, Accessibility and Amenities enhances tourism sustainability. The study recommended that there is need for more support for heritage conservation and more research be carried out to establish the different types of cultural attraction in the county. To enhance accessibility, there is need to improve on access roads and signages to the destinations. Both modern, cultural and natural accommodations facilities need to be built in the county to boost tourism in the site areas. There is need to incorporate digital platforms to facilitate easy access to information concerning various tourists' destinations in the county.

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LIST OF ACRONYMS

4 A's	Four Tourism Destination Components/Dimensions; Accessibility, Accommodation, Attraction and Amenities
ECT	Expectation Confirmation Theory
GDP	Gross Development Product
NACOSTI	National Commission of Science and Technology Innovation
PCA	Principal Component Analysis
SPSS	Statistical Package for Social Science
UNWTO	United Nations World Tourism Organization
WTTC	World Travel & Tourism Council

OPERATIONAL DEFINITION OF TERMS

Tourism destination: Is a space physically created for a guest to spend not less than twenty-four hours and has a combination of resources like infrastructure, human-made attractions, facilities with conditions attracting tourists to a zone (Hall *et al.*, 2015).

Tourism sustainability: Is tourism that is concerned with current needs for tourists but at the same time giving posterity or continuity to the future tourism industry (Edgell Sr, 2016). It is operationalized in this study as tourist satisfaction, revisit and recommendations.

Tourism destination dimensions: These are the 4A's, specific features and characteristics that pulls visitors/ tourists with different interests, wants and experience into a destination. They include; Attractions, Accommodation, Accessibility and Amenities.

Attractions: Tourists attractions are destination's dimensions that influence tourists to visit. In this study, Attraction can be separated in 3 categories: Natural attractions or biological or geographical characteristics that have an unambiguous plea to the market of tourism (Aall *et al.*, 2015).

Amenities refer to buildings and infrastructure that fulfils the holiday needs and make the destination an enjoyable place to stay. They include; sports, recreational and cultural – social facilities (Buhalis, 2022). Amenity relates to everything that gives "beauty, pleasure, or experiences unique to the locale." Amenities are resources on which communities' benefit from tourism activities in the area According to (Fletcher

et al., 2017). This study defines Amenities as tourists' information centers, supporting systems and electricity and water supply to these destinations.

Accommodation Tourists need a place to revive and relax after travelling to destination(s). Volo (2018), further suggests that accommodation facilities are complementary facilities to tourist attractions. In this study, accommodation is characterised as quality of services, variety of facilities and quality of meals provided in facilities in the destinations.

Accessibility is a way visitor can connect to destination by use of different mode of transportation (Boniface *et al.*, 2020). It is one of the tourism elements that involve guiding tourists to destination of their choice. This study operationalise it as proper signage, geographical proximity and the road conditions leading to destinations.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Tourism sustainability has become of great concern among different governments and scholars worldwide. It refers to a fundamental process and the capacity to maintain or endure the level of tourism activities over a longer period of time (Gisore & Ogutu, 2015). It also refers to tourism that meets the needs of the present without compromising the ability of future generations to meet their own needs (Streimikiene *et al.*, 2021). Tourism sustainability embraces on sustainability principles which are an assurance for tourism long-term sustainable tourism activities. These principles include; environmental, economic and social-cultural aspects of tourism development (Dłużewska, 2019). Venugopalan and Kumar (2017) in their work pointed out that for tourism to be considered as sustainable, there must be sustainability principles and pillars such as; environmental, economic, and socio-cultural.

Fundamentally, tourism sustainability provides better decisions made concerning sustainable development for tourism and give attention to indicators that may affect destinations (Streimikiene *et al.*, 2021). Scholars such as (Asmelash & Kumar, 2019a; Marinao-Artigas & Barajas-Portas, 2021; Ramukumba, 2018; Rasoolimanesh *et al.*, 2020) suggest that tourist's satisfaction and recommendations are suitable tools or indicators to measure tourism sustainability which should be reflected before making a decision to go to a destination. According to Dodds & Butler (2019) tourists' who are satisfied with a certain destination usually recommend others or revisit a destination and hence it results into a thriving tourism industry.

Since there are many measures of tourism sustainability UNWTO (2004); Mika, (2015); Uysal & Sirgy (2019) are in agreement that relevance, meaning, freshness, clarity, sensitivity, availability, reliability, normativity, comparability, and credibility should be considered as the rationale behind the adoption of any measure. The measures adopted in this study include; tourist satisfaction, recommendation and revisits. Tourists are said to be satisfied after their comparison on their pre-visit and post-visit experience (Ramseook-Munhurrun *et al.*, 2016). Tourists' revisit means tourist coming back to initially visited destination and later they make an assessment on the experience they had during their visit to a certain tourist destination (Muskat *et al.*, 2019).

In a nutshell, Park *et al.* (2020) hypothesizes that, a tourist who is satisfied with a particular destination will either revisit the site and/or recommend other tourists to visit. There are so many determinants of tourism sustainability including both macro and micro aspects, such as regional government, the neighborhood, local companies, tourist infrastructure, stakeholders' attitudes and the climate for conducting business in the tourism industry among others. A destination exists as a trademark that has a merger of products and services that respond to the needs of tourist (Vittersø *et al.*, 2017). According to WTO (2008) cited in Page (2014), a visitor(s) goes to an exceptional destination that display products like; attractions, provisional services, well managed resources, administrative boundaries and an outstanding appearance. According to Neupane (2021), a destination is considered to contain features that can be enumerated as eight A's; attractions, access, accommodation, amenities, activities, affinity, actors, act and administration. Also, (Clarke, 2005) suggest that a destination is made up of elements like: attractions, amenities, access, marketing and pricing.

Countries or regions with tourist destinations that most tourists would like to visit are the ones' that receive most visitors. For example, in the United States, as of 2018, New York City is the most visited destination followed by Los Angeles, Orlando, Las Vegas, and Chicago. United States also attracts the third-highest number of tourists after France and Spain (Pickel-Chevalier, 2015). This shows that tourist destinations influence the number of tourists who visit a certain destination or country. According to Richards (2014), After Asia Pacific, the African area is the world's second fastest expanding tourism destination. Christie *et al.* (2014), noted that there are abundant tourism resources, with expansive beaches, wildlife and extensive nature, culture and adventure opportunities in Sub-Saharan Africa.

The current study adopted attractions, accommodation, amenities and accessibility as tourism destination dimensions as has been applied in other studies (Neupane, 2019). A tourist attraction is a place of interest that people visit for its inherent or demonstrated natural or cultural value, historical significance, natural or architectural beauty, or to provide leisure and amusement (Novais *et al.* 2018; Reitsamer & Brunner-Sperdin, 2017). Accommodation is an indispensable element in the development and promotion of tourism sustainability. It refers to a business that provides its facilities and services to people or groups (Reitsamer & Brunner-Sperdin, 2017). Hotels, motels, guesthouses, and corporate apartments/chalets are a few examples. Accommodation, according to Mensah & Dei Mensah (2013), is any establishment that serves as a psychological base for tourists or those who are temporally away from their typical place of residence or employment. The extent and quality of available housing facilities might reflect the level of tourist sustainability (Novais *et al.*, 2018). The indicators of accommodation considered in this study were; variety of facilities, quality of service and quality of meals.

Accessibility refers to a way a visitor can connect to destination by use of different mode of transportation (Boniface et al., 2020b). It is a complicated notion that includes not only physical affordability in relation to transportation networks, but also psycho-social aspects in relation to perceptions, motives, and travel decisions (Putra *et al.*, 2021). It refers to the link between the place of origin of the tourist's and the destination (AlKahtani *et al.*, 2015). Its constructs considered in this study were; proper signage, geographical proximity and road conditions.

Tourist information, Accommodation, restaurants, and any other supporting infrastructure are examples of amenities (Dewi *et al.*, 2017). Amenities play a significant function in moulding a tourist's overall pleasure because they must cope with meals and sleeping time despite their brief stay (Connell *et al.*, 2015). It refers to a location's "pleasantness," and it plays a vital part in defining the tourist experience. Public bathrooms, signs, connection, emergency services, postal facilities, roads, walkways, and safe drinking water are just a few examples. According to Stainton & Jordanova (2016), amenities should be purpose-built around the needs and wants of the potential visitors from targeted segments in numbers identified by market viability studies. Its indicators considered in this study were; tourist information centre, supporting systems and electricity & water supply.

In Kenya, Nandi County is amongst the counties that are bestowed with tourist's destination dimensions. Destination dimensions in the county include amongst others; attractions, accommodation, amenities and accessibility (Sawe, 2019). The tourist's activities in the County should be able to raise sufficient revenue that is needed to meet the needs of all the tourists' sites in the County (Kiprutto *et al.*, 2012). This was not the actual situation in most of the tourist's attraction sites in the County. Also, instances exist amongst others where some of tourism attraction sites are recording a

decline in the number of tourists while others are experiencing a low tourist revisit's rate (Connell *et al.*, 2015). This implies that tourism sustainability has not fully been realized in the County. Therefore, the current study sought to determine the influence of destination dimensions on tourism sustainability in selected sites of Nandi County in Kenya.

1.2 Statement of the Problem

Sustainable tourism is one of great importance in any destination because it improves tourism revenue collections, enhances customer satisfaction and increase in tourists' revisits rate hence leading to continuity in tourism industry. A research study by Kiprutto *et al.* (2012) are in agreement that Kenyan tourism sector in the north rift region face accessibility challenges such as poor road networks and development of tourist's products. Nandi county Department of Tourism and Social Culture (NCDTSC, 2018), reveals that though the County is a well-known tourism potential hub, it has not been exploited. It has many tourist's resources but experiences low revenue collection from tourist related activities and customer dissatisfaction which has resulted into low tourist revisit's rate, most of the sites are not up to the international tourist attraction standards as well as attracting more local tourists to the destinations which compromises sustainability of tourism in the County.

Instances of a decline in the number of tourists in some of the destinations like Ngabunat caves, Kaptumo Native Court in Nandi County (NCDTSC, 2018). This implies that tourism sector in Nandi is not performing well as compared to other destinations yet there is effort to improve the current situation. Empirically, few studies had examined the influence of tourism dimensions on tourism sustainability. Ariya *et al.* (2017), considered tourism destination attractiveness dimension as perceived by tourists in a wildlife tourism destination and not tourism destination

dimensions in a different destination site. As a result, this study intended to determine the influence of destination dimensions on sustainability in selected districts of Nandi County.

1.3 Objectives of the Study

1.3.1 Main Objective

The main objective of this research was to determine the influence of destination dimensions on tourist sustainability in selected sites in Nandi County, Kenya.

1.3.2 Specific objectives

- i) To establish the influence of tourism attractions on tourism sustainability in selected sites of Nandi County, Kenya.
- ii) To determine the influence of accessibility on tourism sustainability in selected sites of Nandi County, Kenya.
- iii) To find out the influence of accommodation facilities on tourism sustainability in selected sites of Nandi County, Kenya.
- iv) To assess the influence of amenities on tourism sustainability in selected sites of Nandi County, Kenya.

1.3.3 Research hypotheses

H₀₁: There is no significant difference between tourism attraction and tourism sustainability in selected sites of Nandi County, Kenya.

H₀₂: There is no significant difference between Accessibility and tourism sustainability in selected sites of Nandi County, Kenya.

H₀₃: There is no significant difference between Accommodation facilities and tourism sustainability in selected sites of Nandi County, Kenya.

H₀₄: There is no significant difference between Amenities and tourism sustainability in selected sites of Nandi County, Kenya.

1.4 Significance of the Study

The results for the study could give a guide to the improvement of tourism dimensions towards sustainability in Nandi County. This study will be of help to the management of various tourist destinations. It will help them to come up with proper strategies on how to achieve tourism sustainability.

1.5 Scope of the Study

The research was on the influence of destination dimensions on tourism sustainability in selected sites of Nandi County, Kenya. The target population was 598 and its sample size was 239. The study adopted a cross sectional survey research design. The study adopted the Expectations-confirmation and Equity theories. The destination dimensions considered in the study were; attractions dimension, amenities dimension, accommodations dimension and accessibility dimension. The sub-constructs of attractions include; cultural attractions, natural attractions and built attractions. The sub-constructs of tourism accessibility were; proper signage, geographical proximity and road conditions. The indicators of tourism accommodation include; variety of facilities, quality of service and quality of meals. The sub-constructs of tourism amenities include; tourist information Centre, supporting systems and electricity and water supply. The dependent variable was sustainability. The sub-constructs of sustainability were; satisfaction, tourists revisits and recommendations. The study was carried out in selected sites of Nandi County, Kenya between November 2020 and January 2021.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter entails theories that guide the research study and their empirical review in identifying other studies related in the field and their gap knowledge as well as the conceptual framework.

2.2 Concept of tourism sustainability

Tourism sustainability has become a critical concern that must be addressed in any viable tourism development strategy. Tourism sustainability comprises of sustainability principles which are used to guarantee its long-term sustainability (UNEP, 2005). For long-term sustainability to be realized there should be a suitable balance that must be established between these sustainability principles. This sustainability principle includes; environmental, economic and socio-cultural aspects of tourism development (UNEP, 2005), Sheppard (2021) refers to sustainability principles as pillars which must be considered when assessing tourism sustainability. These pillars include; environmental, economic, and socio-cultural. Dawodu *et al.*, (2017), further noted that for tourism to be considered sustainable tourism, it has to be sustainable in all the three pillars (Asmelash & Kumar, 2019; Novais *et al.*, 2018).

Environmental sustainability involves making sure that resources in a certain region are conserved for future generations to exploit (Bown, 2008). Socio-cultural sustainability refers to limiting negative effects caused by tourism and focusing on more positive ones, such as stimulating cultural interaction and conserving local customs (Li *et al.*, 2021). Getting the locals involved in the tourism industry helps to

minimize on the negative impacts that arise when tourists visit a certain area. When the community is involved, it not only offers the visitors a more genuine experience but it makes the locals to see tourism in a positive way that they will be proud of it (Liberato *et al.*, 2022).

Economic sustainability refers to building linkages and reducing leakages (Li *et al.*, 2021; Liberato *et al.*, 2022). It essentially means keeping the money locked (Zeng *et al.* (2021). It implies that not only should the community be involved in tourism, but the community should also all share in the financial benefits that arises from it (Strydom *et al.*, 2019). Tourism sustainability is significant because it supports improved choices made concerning sustainable development for tourism and focus on indicators that may affect destinations (Bown, 2008).

2.2.1 Tourist satisfaction

Tourist satisfaction, according to Purwanto *et al.* (2022), refers to the degree to which the tourist is satisfied with the enjoyment that happened from the experience regarding a trip, product or service characteristic that fulfils the tourist's desires, expectations, and needs in conjunction with the trip. Tourist satisfaction is measured using tourists' expectations before and after visiting a site (Ramseook-Munhurrun *et al.*, 2018). Tourist satisfaction is an emotional reasoning that gives a certain feeling towards tourism features in a destination (Al- Msallam, 2020). Because of its potential to impact consumers' future behaviour and form customer loyalty, it is a crucial aspect that determines the success of any industry (Adetola *et al.*, 2016; Al- Msallam, 2020).

Tourist satisfaction is defined as the pleasure derived from dealing with or participating in tourist activities (Purwanto *et al.*, 2022). As Ramseook-Munhurrun *et*

al. (2018); Su *et al.* (2016), stated, experiences that tourists derive from tourism activities are crucial to differentiate the destination from competitors as well as influencing future purchase and repurchase intention. Choo *et al.* (2016), revealed that tourist discontent might lead to unfavourable future behavioural intentions. Tourist satisfaction is therefore a function of pre-travel expectations and post-travel experiences (Aliman & Mohamad, 2016).

Branine & Pollard (2010), emphasized that most tourism studies about satisfaction is reflected as the most significant idea on tourism behaviour. That is also in line with a research by Veloutsou (2015), which states that “product attributes have good assessments from the consumers so that they can improve their satisfaction”. A customer will be satisfied if there is quality presentation of a product or a service. Tourist satisfaction is of paramount importance to the tourist as it influences the choice of a destination, consumption of products and services as well as the decision to revisit a particular destination (Purwanto *et al.*, 2022).

2.2.2 Customer revisits

Customer revisit is described as repurchasing a particular service or product as well as emotional attachment to a service or product (Yoo & Bai, 2013). Customer loyalty is also said to be an assurance of a customer to use and continuously re-purchase a product or a service even if there are other marketing determinants that may change or affect the customers’ attitude. Because of increased competition in the tourism sector, destination marketers have been pushed to focus more on boosting visitors' intents to return to tourism locations (Choo *et al.*, 2016; Tubey & Tubey, 2014).

Currently, several studies have revealed that travellers will always make a repurchase of a product depending on their past experiences, intention to rebuy identified

qualifications of a destination (Hernández-Mogollón *et al.*, 2020), perceived value (Andreani *et al.*, 2017), past vacation experience (Crouch *et al.*, 2016), safety (Choo *et al.*, 2016), image (Tubey & Tubey, 2014), quality related constructs (Yasami *et al.*, 2021), attachment (Choo *et al.*, 2016), and cultural difference (Yasami *et al.*, 2021). Several studies have also found a strong link between customer satisfaction and the likelihood of returning (Orel & Kara, 2014).

2.2.3 Recommendation

The oxford dictionary defines recommendation as a positive representation in favour of a product or a person as a way of showing acceptance. It is the act of saying that a product or a service is good and deserves to be chosen. Therefore, “attitude or beliefs” conveys the readiness for customers to revisit and recommend (Chi & Han, 2020). Satisfied tourists tend to communicate or recommend their positive subjective norms (word of mouth) and intentions to buy the product repeatedly (Hernández-Mogollón *et al.*, 2020; Martin *et al.*, 2021).

The most essential aspect of visitor loyalty is recommending or urging others to visit a location (Zhang *et al.*, 2014). The degree of happiness of tourists influences their inclination to suggest a place to their family and friends. Recommendations impact tourists' future behaviour. It is often the most important information source for potential visitors, notably in today's information-rich environment (Martin *et al.*, 2021).

According to Agapito *et al.* (2013), the most credible source of information when choosing a holiday destination is through recommendation from family and friends. Martin *et al.* (2021), indicated that most travellers consider online reviews as authentic and trustworthy due to recommendation as tourists tend to trust peer

recommendation more than advertising. It is adopted in this study as an indicator of tourism sustainability (Agapito *et al.*, 2013).

2.3 The Dimensions of tourist destination

Tourism destination dimensions are elements that generally determine tourism as a product. Various scholars have mentioned these dimensions in different versions. According to Della Corte *et al.*, (2015) a destination is characterised by; access; attractions; accommodation; amenities; assemblage and ancillary services. Stephens, Balakrishnan *et al.* (2011) opine that these dimensions of tourist destination play a key part in different steps of decision making on purchasing and repurchasing products of a destination. The resources that draw visitors to a location are classified as main and secondary resources (Swarbrooke, 2012). Climate, cultural ethnicities, ecosystem, existing architecture, and geography are examples of primary resources (Della Corte *et al.*, 2015).

Secondary resources involve the service-oriented ways which enable the vacation for tourists achievable. They consist of infrastructures such as lodging and transportation, easy access, food, activities and amusements, reception and services, and other amenities (Tommasetti & Festa, 2014). Relatively, tourists perceive destinations based on their personal advantage in the sense that time and money that has been devoted or put in a holiday will be matched with experiences received from a destination (Della Corte *et al.*, 2015; Swarbrooke, 2012). Tourism dimensions considered in this study include; attractions, accessibility, accommodation and amenities.

2.3.1 Influence of tourism attractions on tourism sustainability

A destination is attractive if customers perceive it that it satisfies or meets their needs (Kai *et al.*, 2012). In order for a destination to attract, there must be something special about it. There are three types of attraction. Natural attractions are geographical as well as biological characteristics with a particular appeal to the tourism business. They are created by nature. Climbing, mountain biking, hill walking, mountaineering, and potholing mountains are all examples of natural attractions that serve as the backdrop for activity-based attractions (Swarbrooke, 2012).

Cultural attractions are those that relate to a society's distinctive material, spiritual, intellectual, and emotional characteristics, literature, music, such as architecture and arts, culinary heritage, creative industries, beliefs, historical and cultural heritage, value systems, traditions and living cultures with their lifestyles (Bown, 2008). Man-made attractions refer to attractions that have been purposely developed for tourism. It contains a variety of tourist attractions such as a theme park, zoo, or art gallery, among others (Hole & Snehal, 2019)

Tourists are satisfied when their needs such as cultural attractions, natural or built attractions and amusement opportunities are met in a destination (Sánchez- Rivero & Pulido- Fernández, 2012). This implies that an image is a significant element that relies mostly on its natural features. When destinations lack attractions, it is hard to be called a tourism entity (Pantano *et al.*, 2017). According to Bapiri *et al.* (2021), for individuals /cluster of persons to visit a certain tourist destination, it must have attractions such as landscapes, ancient and historical relics, and certain events among others.

While there are prior studies that have analysed features that contribute to destination's attractiveness, showed that outstanding attractions were the 'physical features as well as climate'. Whereas, Boivin & Tanguay, (2019), specified that 'natural beauty and climate' stood out as an important aspect that influenced tourists to visit a destination. According to Richards (2014), tourists are drawn to a place based on factors such as culture, architecture, gastronomy, infrastructure, geography, and events. These qualities draw tourists to the destination and add to the overall travel experience.

According to Boniface *et al.*, (2020), tourists are attracted to a certain destination based on topography, the climate, cultural and social features, events, shopping and commercial facilities, price level, approach to visitors, and the road network towards accessing various destinations. Swarbrooke (2012), noted that ancient monument like heritage sites, old buildings and ruins such as architectural creative buildings comprising of historic and current way of life, approaches and social settings are other features that attract tourists to a certain destination. While according to Boniface *et al.*, (2020) tourists visit a destination because of features such as; botanical gardens, settlement centres, marines, manufacturing archaeology, golf courses and distinctive trademark events.

According to Matarrita-Cascante *et al.* (2019), tourists are attracted a certain destination on the basis of diversity of artistic expressions, folklore, cultural features-ways of life, among others stipulates attractions that are important to many individuals or instance, individuals of Chinatowns in the United States have their ways of customs, languages, and events that offer chances for social meetings like celebratory and spiritual occasions, dances, music, food among other entertainment. This has become an influential aspect that inspires visitors when choosing a

destination (Putra *et al.*, 2021). Operational measures of tourism destinations attractions considered in this study are exhibited culture, natural attractions and built attractions. Exhibited culture or cultural tourism relates to various activities such as visiting historic sites, attending performing arts events and museums (Boniface *et al.*, 2020b; Swarbrooke, 2012).

A tourism destination will often include both cultural and natural attractions. However, they are not necessarily equally essential in influencing visitors' inclinations to come or return (Boniface *et al.*, 2020b; Matarrita-Cascante *et al.*, 2019; Swarbrooke, 2012). Thailand has a plethora of natural attractions such as mountains, seashores, and other natural resource-based tourism destinations that are popular with Chinese visitors (Clarke, 2005). According to Xu *et al.* (2013), natural attractions are the initial impression or picture of a tourism site. Built attractions also increases attractiveness of a tourism destination. It includes attributes like package tours and amenities for sports and leisure, hotel and transport facilities. These attractions together with natural attractions are significant predictors of revisit intention (Swarbrooke, 2012), Empirically there are few studies if none that have assessed effect of built attractions on tourism sustainability in Kenya and more specifically Nandi County and hence its choice as one of the indicators of attractiveness in this study.

2.3.2 Influence of accessibility on tourism sustainability

Accessibility is a way visitor can connect to destination by use of different mode of transportation (Boniface *et al.*, 2020b; Swarbrooke, 2012). Tourism site or destination should be easily accessible besides its attractions and amenities (Boivin & Tanguay, 2019). Every means of transportation varies depending on their technical ways as well as environment (Boniface *et al.*, 2020b). Modes of transport frequently used by

tourists to tourism destinations include; air, water (cruise ships) and land transport (road and off-road transport, railways). Other modes also exist, including space transport as well as cable transport (Boniface et al., 2020b; Swarbrooke, 2012).

Visitors should also be able to travel with relative ease within the destination. Connell *et al.* (2015), argued that modes of transport connect the original residence sites to be visited by tourists whether it is by land, sea or air. Accessibility is therefore the degree to which visitors reach to these destinations at their own comfortability. Three main factors in transport include; cost, suitability and speed that determine the success of tourism destination (Dwyer *et al.*, 2010). As a result, the price at which a thing is sold establishes expectations about its quality and is tied to its worth (Nicolau, 2011)

For most tourists, the means of transport depends on their choice of destination (Swarbrooke, 2012). Accessibility to a tourism destination can be made easy if there is proper signage that provides direction to where a certain tourist destination is. According to Battour *et al.* (2018), visitors may be uncomfortable and discouraged if they don't find the right way to a destination. Therefore, visitor's signage ensures that the visitors can locate and move with much ease to a certain tourist destination. Basic signs such as direction signs that give information to take the user to certain areas, identifying signs or tags that provide information about the sight may be used to accomplish proper signage. The titles of the attractions, their hours of operation, and their admission rates are all crucial to tourists. Map signs that provide information about the surroundings and their position, as well as regulation signs that restrict the users' movement or behaviour, are both essential (Nicolau, 2011; Pantano *et al.*, 2017).

According to Putra *et al.* (2021) proper signage of tourism attraction sites can be achieved using imperative signage, indicative signage and suggestive type of sign.

These are signs that are intended to influence visitors with their information. Indicative signs may also be used to accomplish proper signage of tourism locations since they can be utilized to influence the receivers' thinking, but they do not require the receiver to do any action. This is of paramount importance to tourists as there are so many tourism destinations in the country which raises the level of competition. Tourist's destinations with this indicative sign are on the upper hand when it comes to increase in the number of tourists visiting such areas and hence raising tourism sustainability in such areas. According to Putra *et al.* (2021) tourism destinations should have imperative signs since they restrict or forbid the receiver from doing something. This may avert cases such as accidents, death which might lower the reputation of a certain tourism attraction site.

The researcher further propose that in order to affect the receivers' feelings and lure them to act in a confident way there should be suggestive signs in place. Putra *et al.* (2021), postulates that installation of visitor's signs not only brings opportunities to the local tourism business but also, is beneficial to the visitors in terms of choice of tourism destination(s). Visitor's signs guide visitors safely to given tourist destinations by revealing the appropriate route. In Kenya, there is no specific study that has assessed the effect of proper signage of tourism sustainability and hence its choice in this study.

Geographical proximity is chosen as another indicator of accessibility. According to Battour *et al.*, (2018), distance and proximity is of great value when it comes to spatial distribution of tourists, tourist's sites and their activities. The researcher further opines those subjectivities attached to distance and proximity influences the specific destinations visitors opt for and which ones they do not opt for. This in turn determines the competitive identity of tourism destinations. Destinations that are too

distant are arguably less attractive but also the ones that are too proximate seem unfavourable too. The reasons given are that holiday destinations close to home are too conventional and ordinary to maximize the value of being on vacation (Nicolau, 2011; Sánchez- Rivero & Pulido- Fernández, 2012). How geographical proximity influences sustainability of tourism is an area that has not fully been researched on and hence the need to ascertain whether geographical proximity is a precursor for revisits and satisfaction of tourists with Nandi County.

Road conditions are another indicator of accessibility considered in this study. Dwyer *et al.*, (2010), acknowledged that the plan of transportation connectivity is significantly determined by the level of tourism development and its management. Visitors to tourism destinations are attracted to destinations with proper road networks. The development of a tourist destination can be slowed by poor infrastructure (Swarbrooke, 2012). According to Boniface *et al.*, (2020) & Page, (2014), growth of tourism across destinations has been disadvantaged with poor infrastructure. Regions with poor roads infrastructure experiences few visitors and it is difficult to convince customers to visit destinations which they will spend longer hours. Studies on road infrastructure and sustainability of tourism in Nandi are limited and hence this study would find out whether road infrastructure influences sustainability of tourism in Nandi County.

2.3.3 Influence of accommodation facilities on tourism sustainability

Accommodation is part of tourism that influences development of tourism in certain destination areas. It is in itself an important tourist attraction. According to Hole & Snehal (2019), accommodation is one of the universal subsectors with the tourism industry. Tourists need a place to revive and relax after travelling to destination(s). On the other hand, Matarrita-Cascante *et al.* (2019), suggests that accommodation should

be available for tourists who spend at least twenty-four hours in a destination visited. In order to develop the tourism industry and achieve expansion, then suitable choice of accommodation is needed (Liberato *et al.*, 2022). Tourists are attracted to various destinations where comfortable hotels and other forms of accommodation facilities are available. Since tourists need rest while on a tour, destination sites should have a range of accommodation that meets the need for all visitors.

Ariya *et al.*, (2017), further suggests that accommodation facilities are complementary facilities to tourist attractions. This implies that destinations without good accommodation facilities are disadvantaged when it comes to attracting tourists. A range of facilities meet the demand for accommodation away from one's home, including hostels, bed and breakfasts, hotel businesses, pensions, recreational vehicle parks, campsites and vacation rentals. Quality of service and a range of accommodation facilities available to visitors tend to reflect and affect a wide range of visitors to the site (Asmelash & Kumar, 2019a; Christie *et al.*, 2014).

Accommodation is a need for human travelling and accommodation facilities are classified according to services they offer, price, size and type of visitor. According to Park *et al.* (2020), hotels are the most common kind of lodging and are classified from five (5)-star to extremely economical. There are also one to five-star camping sites where every tourist may discover the finest solutions based on their budget.

Accommodation facilities vary also based on the target groups; while others target families and business travellers' others target leisure travellers. Nowadays, meals and accommodation are not the only prioritised services in hotels but many offer health club and crèche according to tourists needs. Larger hotels are expanding their share of the vacation sector, particularly in major urban regions and important tourist destinations (Richards, 2014). Big hotels are retaining their share of tourist resorts in

more traditional holiday and sea-side destinations in Europe and internationally (Liberato *et al.*, 2022).

Besides hotels, supplementary accommodation facilities have been developed around the world to cater for the needs of tourists. These supplementary accommodation facilities are categorised according to services they provide, location, types of management among others. These supplementary accommodation facilities are friendly to visitor rather than the big hotels and resort hotels. These facilities provide overnight stay and food to the customers. Services provided by these facilities are at affordable price. Normally, other services offered by these facilities include entertainment and sports services. The types of supplementary accommodation facilities include motels, camping and caravan sites, tourist holiday village, bed and breakfast, youth hostels, inns, farmhouse accommodation, guest houses, hostels among others (Chin *et al.*, 2018).

The countries that have a reputation of excellent five-star accommodation facilities include Switzerland, Holland, France, Australia, and Belgium. Most of the tourists chose a specific site or city because they are assured of outstanding tourist's facilities and services in hotels (Boivin & Tanguay, 2019). For instance, in Europe, initiating big hotel development programme, France set the ground for Corsica's tourism boom (Boniface *et al.*, 2020b; Martin *et al.*, 2021; Swarbrooke, 2012). Quality of service and a range of accommodation facilities available to visitors who attend will reflect and affect a wide range of visitors to the site.

There are new kinds of accommodations that have shown to be successful in the new accommodation industry, including facilities such as private villas, vacation villas, apartment homes, caravan and camping. These are the new trends in the accommodation sector that have been used to meet the highly seasonal demand. Chin

et al. (2018), suggests that the increase in supplementary accommodation facilities has been used to fulfil the income of middle-class income travellers as it meets their budget. In many holiday areas camping and caravan sites are recognized as a significant form of accommodation. This form of accommodation is very popular in some European countries and in the United States of America. Camping and caravan sites are found in different shapes, quality of services and sizes (Boniface *et al.*, 2020b). Tourists' destinations should be bestowed with variety of accommodation facilities, services offered by these facilities should be of high quality to ensure customer satisfaction as well as upsurge in revisits. Limited studies have assessed the effect of accommodation on tourism sustainability in Kenya more specifically in Nandi County and hence the needs for this study so as to address this Knowledge gap.

2.3.4 Influence of amenities on tourism sustainability

Amenities refer to buildings and infrastructure that fulfils the holiday needs and make the destination an enjoyable place to stay. They include; sports, recreational and cultural – social facilities (Battour *et al.*, 2018). Amenity relates to anything that gives "beauty, pleasure, or experiences unique to the locale." Amenities are resources on which communities' benefit from tourism activities in the area. Amenities are elements within the destination or linked to it. According to Boniface *et al.* (2020), facilities are depicted as supporting items rather than tourist attractions in and of themselves. They play a very important part in a destination since they make the holiday complete and enjoyable by tourists as they participate in the tourist attractions activities (Dodds & Butler, 2019; Swarbrooke, 2012). Furthermore, an amenity resources viewpoint preserves the community's character while improving the quality of life for its people.

Tourist's destinations should consider amenities that make a visitor comfortable upon arrival. The bathrooms should be clean especially when the destination is geared towards families. This facility should be designed to meet the interests and desires of possible visitors from specific segments in quantities determined by market feasibility studies. Basic infrastructural amenities like communication facilities, watercourses, ports, roads, railways and airports, to secondary systems like sewerage and waste disposal, electricity and water supplies and services at the tourist destinations need to be there to make tourism possible (Boniface et al., 2020b).

Complex infrastructural and super structural elements which offer accommodation such as hostels, resorts, farms, motels, caravan parks, holiday villages, campsites, apartments and guesthouses are also included in this category. They comprise of different categories of eateries, bars and coffee bars that provide a variety of foods (Della Corte *et al.*, 2015). Services and reception at front office which is related to a service delivery system, where employees engage with customers, is also significant resources for tourism. It uses the labour intensity metric to determine the distinguishing features of a service (Boniface et al., 2020b).

Entertainment, financial services, shopping and recreation facilities, police force, information centres, health centres, tourism agents, housekeeping, internet services, printing, insurance, wholesaling and retailing are other services that make travel easier, more effective, and impressive to visitors (Boniface et al., 2020b; Sánchez- Rivero & Pulido- Fernández, 2012; Swarbrooke, 2012). Generally, amenity services play a significant role in tourism. Environment that has no quality attributes is not only unattractive to tourists, but reduces satisfaction (Chi & Han, 2020; Kai *et al.*, 2012). There is significant overlap between attractions and facilities as well. A resort, for example, may grow into an attraction in its own right, despite the fact that

its primary business is to cater facilities. Visitors experience can be negatively affected if there is no good technology and transportation facilities in a destination thereby affecting their satisfaction and revisit experience (Choo *et al.*, 2016).

This study considers tourist information centre, supporting systems and electricity & water supply. By maintaining a visitor program that provides credible materials on the place, the tourist information centre fosters a favourable traveller experience. Information centre is a physical location where travellers can go to acquire information about the destination. This information centres links tourists to suppliers. Tourism destinations should invest in creation of information centres because they facilitate visitor enjoyment attracts them to stay longer and spend more money by providing more information services and products offered at a certain destination (Su *et al.*, 2016; UNEP, 2005).

Information centres provides welcoming environment for travellers as they can collect or get to know about products and services offered at certain sites and subsequently make reservations. This information centres offers opportunities for revenue generation through sale of local handicrafts and merchandise as well as capture information about travellers. This information centres are important amenities as they can help destinations to tackle local initiatives such as recycling initiatives, organizing local festivals, organizing farmer's markets among others (Adetola *et al.*, 2016). Decision support systems aid the process of decision making in tourism among other sectors. But the real adoption of advanced software is rather low. More than a third of the European tourism enterprises lack electronic supporting technologies and this has adversely affected their way of conducting business (Yoo & Bai, 2013).

Support systems can be applied in areas such as customer relations management, enterprise resource planning, and knowledge management among others. These

support systems gather accurate knowledge of the destination resources. (Chin *et al.* (2018) suggests that support systems play a fundamental role as it provides people managing tourism destinations accurate information for decision making concerning infrastructure development, policies, and the progress of stakeholders on sound and rational bases. According to Swarbrooke, (2012), there are limited studies on support systems in the tourism industry. The current study addresses this knowledge gap as support systems is considered as one of the indicators of amenities.

2.4 Theoretical framework of the study

This study was guided by the Expectations-confirmation (ECT), and Equity Theories by (Anderson, 1994) and (Ford *et al.*, 2016) respectively. Where it was used to understand customer's behavior, their prediction on satisfaction, to repurchase a product or a service or recommend someone (Anderson, 1994; Ford *et al.*, 2016). ECT is formed on the basis of four main elements; expectation, performance, disconfirmation and satisfaction. Further research by; Qazi *et al.* (2017) made an effort to update the studies by researching on the linkage between expectation and disconfirmation, pre-test assessment, customer's evaluations of a product and their intentions to buy. It showed that an individual's assessment on either to get satisfied, rebuy or recommend a product or service to others depends on their expectations before and after buying a good or service.

ECT theory has also been adapted by Abrams *et al.* (1989), on the study to understand Information Systems Continuance or to continue using Information Systems. It was also used by Rahi *et al.* (2019), to investigate on the influence of ECT on customer recommendations when using online travel and tourism services. Their results indicated that the comparison between expectation and performance of online system led to a certain level of satisfaction and recommendation to friends, family and

colleagues. Customers' confirmation level is as a result of post acceptance and its usefulness (Rahi *et al.*, 2019). An additional word of mouth with expectation is an indication that the importance of perception and satisfaction will affect the customers' intention to certainly extend the use of the product (Eisingerich *et al.*, 2014).

In tourism destinations, consumers have different expectations of the performance for tourism dimensions that lead to either satisfaction or dissatisfaction. According to Park *et al.* (2020), if a product outperforms expectations, then there is a positive disconfirmation and post-purchase satisfaction will result. They also stated that if a tourism commodity or product falls short, the consumer may experience negative confirmation, resulting to dissatisfaction. The use of ECT theory reflects visitors' expectations, which can be good or negative based on perception and performance of destination aspects.

The equity theory used by Pritchard (1969), to understand the essence of situations like buyer and seller exchange. Fu (2013) explains how an individual's needs, motivation, expectation and input assessment and result of service or product provided. Burrai *et al.* (2015), used equity theory to understand the "Destination stakeholders' perceptions of volunteer tourism." These situations involve two actors; the purchaser and the seller, the provider and receiver. Where each actor on their own capacity invests on their resources and expects fairness or justice or else, this relationship may be considered unfair (Brito & Miguel, 2017).

However, there are theories that compete with ECT and Equity theories like; Dissonance Theory originally used by McGrath (2020) to determine people's attitude, outcome of decision making, the effect of agreement and disagreement among people. This portrays that, if a customer's expectations for a product or a service were high and receives a low quality of that product or service, then the customer's reasoning of

this difference would be an emotional dissonance. The emotional consolation to dissonance is due to an expectation that has not yet been experienced or fulfilled. Customer can moderate an emotional tension by having an alternative product perception if there is a difference between expectation and presentation of a product or a service. On the other hand, if the cost of a product may appear to be high to a customer, then the customer's assessment may raise higher (Cardozzo, 1965 cited in (Harmon-Jones & Mills, 2019).

A critical view of this theory by scholars like; Al Shamaileh & Alnaser (2018) indicate that satisfaction is an outcome of a comparison between the expectation of product A and the performance of product B. The researcher's study sought to ascertain the impact of tourist dimensions on tourism sustainability in chosen locations in Nandi County, Kenya.

2.5 Conceptual framework

The conceptual frame work illustrated that the variables under this study related to each other in one way or another. The variables included, independent variables which were; attractions containing their sub constructs like; cultural, natural and built attractions. Accessibility variable had its sub constructs like; proper signage, geographical proximity, and road condition. Accommodation as a variable contained elements such as; variety of facilities, quality of service and quality of meals. Finally, amenities as a variable consisted of elements such as; tourism information centres, supporting systems, electricity and water supply. While dependent variable was sustainability, which was conceptualized as satisfaction, revisits and recommendations as portrayed in Figure 2.1.

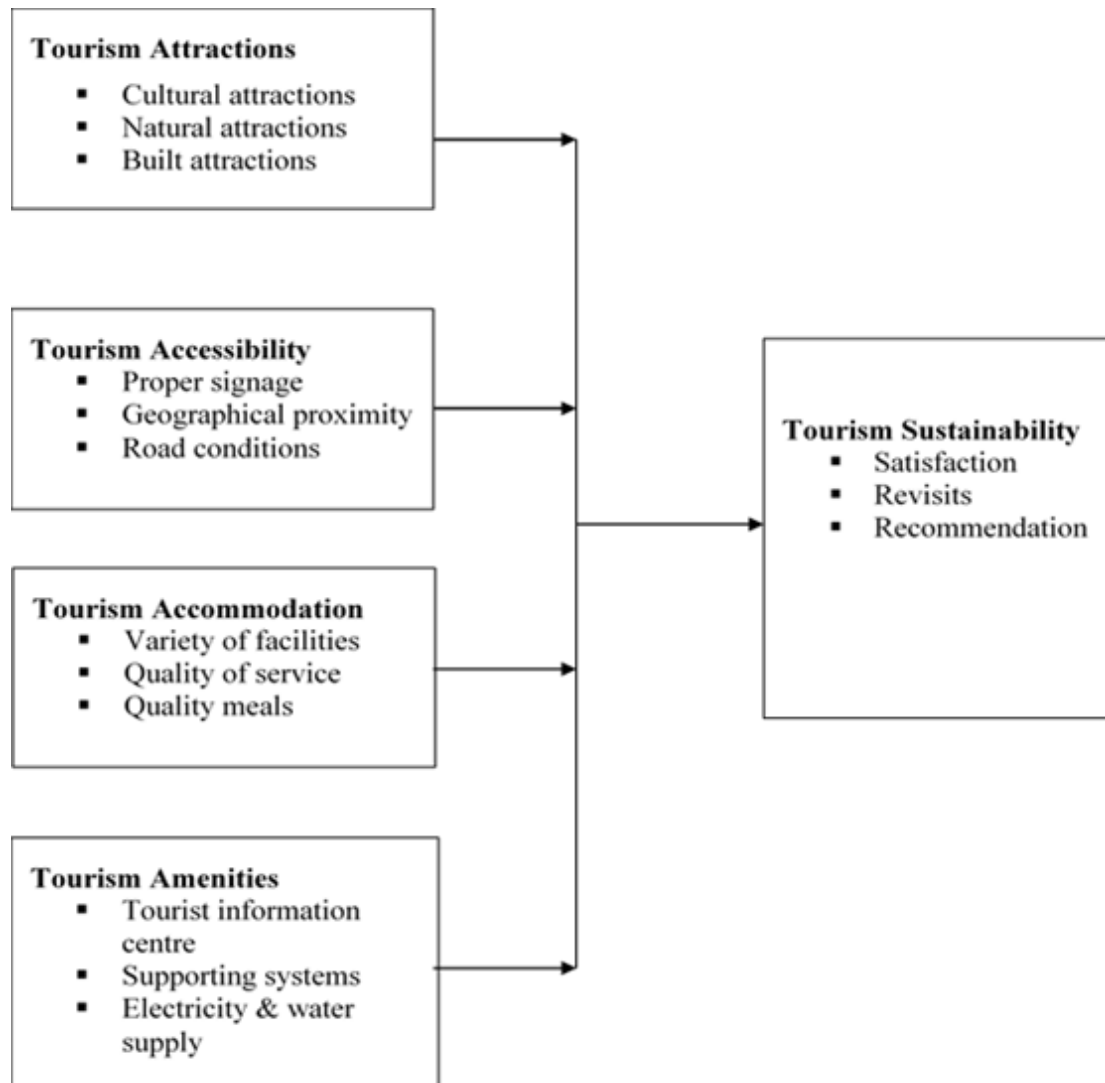
Independent Variables**Dependent Variable****Destination dimension**

Figure 2.1: Conceptual framework for destination dimensions and sustainability

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The study area, research design, study, target population, sample size and sampling technique, data collecting tools, data collection procedures, pilot testing, validity, reliability, data analysis, and ethical issues are all covered in this chapter.

3.2 Study area

Nandi County is in the North Rift of Kenya, occupying an area of 2,884.4 square kilometres. It has five sub counties/ constituencies namely; Mosop, Aldai, Tinderet, Nandi Hills and Chesumei. It is located 0.166667°N 35.15°E approximately 315.5 km from Nairobi using A104 road. It is 458.10 km² in size with an estimated population of 149,256 peoples as per 2009 census. The rainfall varies between 1,200 mm and 2,000 mm annually, with temperatures of between 15°C and 25°C. Soil in the northern part of the county is a well-drained volcanic loamy soil capable of supporting tea farming while to the south, soils are loam with quite a lot of sand and gravel. The selected tourist attractions in Nandi County include, Diguna falls, Kaptumo Africa native court, Koitalel samoei museum, Ngabunat caves, Chepkiit falls and Eden spring guest house.

Tea, maize, and sugar cane cultivation are the main economic activities of Nandi County. As a result, agriculture is the most important economic activity. Because of its link with internationally recognized athletes, the county has enormous potential to expand sports tourism.

3.3 Research design

Rahi *et al.* (2019), described as research design as an overarching plan that helps a researcher to integrate a variety of components of the study in a clear and logical manner. A cross-sectional study also known as a cross-sectional analysis, transversal study, or prevalence study was utilized in this research study. A cross-sectional study is a form of observational study that analyses data from a population, or a representative subset, at a single point in time.

It is a methodology for conducting research that involves collecting, analysing and integrating quantitative data (Rahi *et al.*, 2019; Stainton & Iordanova, 2016). This approach to research is used when this integration provides a better understanding of the research problem. By using a quantitative research design, the researcher was able to understand and authenticate the findings, while offsetting the weaknesses vital to using any other approach (Stainton & Iordanova, 2016). This design describes variables based on data collected in the field and desk research. Therefore, this study implemented a cross sectional survey to quantitatively gather data from tourists visiting selected sites of Nandi County by use questionnaires.

3.4 Population

Population is the totality of individuals in question (Tipler *et al.*, 2018). The target population for the study is approximately 598 tourists according to average visitor statistics at the county (Nandi County Department of Tourism Culture and Social Welfare, 2019). These were visitors who were estimated to be visiting all the 6 tourist destinations in selected sites of Nandi County in a period of one month. These attractions were; Diguna falls, Kaptumo Africa native court, Koitalel Samoei museum Ngabunat caves, Eden spring guest house and Chepkiit falls (Tourism, Culture and

Social Welfare Nandi County, 2018). The targeted population per destination was as summarized in Table 3.1:

Table 3.1: Estimated target population for Nandi County

Stratas	Population (Visitors per month)	percentages
Diguna falls	160	27%
Kaptumo Africa native court	43	7%
Koitalel Samoei museum	125	21%
Ngabunat caves	130	22%
Eden spring guest house	106	18%
Chepkiit falls	34	5%
Total	598	100%

Source: Nandi County, Department of Tourism, Culture and Social Welfare, (2019)

3.5 Sampling procedures and sample size

One concept of sample size, according to Quintiere, (2016), is that the smaller the population, the larger the sample ratio must be in order to have an accurate sample. The following criteria should be considered when determining sample size, according to Rahi *et al.* (2019), population heterogeneity, tolerable error magnitude, and confidence level. Yamane's (1967) formula for finite population was used to get the sample size for this study.

$$n = \frac{N}{1 + N(e)^2} \quad n = \frac{598}{1 + 598(0.05)^2} = 239 \dots\dots\dots \text{Equation 3.1}$$

The stratum samples were assigned via random stratified sampling; the formula utilized to do so was as follows: $n_h = n (N_h/N)$

Where n_h = sample size in stratum h ,

N_h = population size in stratum h ,

h = stratum number,

where $h= 1,2, 3, \dots$,

N = total population size, and n is the overall sample size.

Visitors were sampled using a basic random sampling approach after stratification.

Table 3.2 shows the sample size.

Table 3.2: Sample Size

Stratas	Population (Visitors per Month) h	Sample size per strata
Diguna Falls	160	64
Kaptumo Africa native court	43	17
Koitalel Samoei	125	50
Ngabunat caves	130	52
Eden spring guest house	106	42
Chepkiit falls	33	14
Total	598 (N)	239

3.6 Data Collection instruments

Data was collected by use questionnaires open and close ended questionnaire. Questionnaires are a set of printed or written questions with a choice of answers, derived for the purposes of a survey or statistical study. There was a set of statements carefully designed to enhance gathering information of interest to the researcher in this case influence of tourism attractions, accessibility, accommodation and amenities on tourism sustainability in selected sites of Nandi County, Kenya. Questionnaires in this section has been advocated from McGrath, (2020). This was determined through a revision and a variety of related survey in different research journals. The four tourism dimensions were engaged in the open as well close ended questionnaire.

3.7 Data collection procedures

Data collection is critical in research because it permits correct information to be disseminated and useful initiatives to be developed (Pantano *et al.*, 2017). A research permit was sought from the National commission for science, Technology & Innovation (NACOSTI). While the researcher sought the consent of the Nandi County, department of Tourism, Culture and Social Welfare from the village chiefs. Upon approval, the researcher together with two college students trained as research assistants by the author proceeded with the data collection exercise.

3.8 Pilot testing

Pilot testing in research study is a pre-test conducted before to the start of data collection to assess the correctness of the research instruments, namely the questionnaires and interviews used for data collection (Yoo & Bai, 2013). Pre-testing the apparatus and the overall research design allows for improvement before the investigation begins. Pilot testing detects flaws in design and equipment and provides proxy data for sample selection. The questionnaire was subjected to a pilot test to verify that it was simple to understand, consistent, and clear. The pilot test conforms to the well praised norm of 5% to 10% and gave a Cronbach's reliability test results of 0.85. Pilot study helped to establish validity and reliability of the research instruments. During the pilot test, 10% of the sampled population of 239 was utilised. Questionnaires were given to 24 people who were not allowed to take part in the main study. Pilot testing was done at Elgeyo Marakwet County (EMC). This was because (EMC) as a destination, has tourism attributes that can be compared with another destination like Nandi County. The pilot study feedback was utilized to assess the

quality of apparatus that was later employed for data collecting and processing. The validity and reliability tests were then carried out.

3.8.1 Validity of research instruments

Validity is described as the appropriateness, accuracy, and meaningfulness of specific conclusions drawn from study findings (Bolarinwa, 2015). It refers to the persuasiveness of a conclusion, inference, or thesis. It is the extent to which data analysis results accurately depict the topic under investigation. Internal validity and external validity are two types of validity. Internal validity is concerned with the issue of causation, which is defined as the causal link between two or more variables (Heale & Twycross, 2015). External validity relates to the capacity of results which can be generalized beyond the specific research context (Taherdoost, 2016). To ensure that external validity was realized, there was a selection of study sample that was the most representative group and had no problem with external validity (Scott *et al.*, 2016).

Content and construct validity were embraced in the study. Gall *et al.* (2007) postulates that content validity of an instrument is improved through expert judgment. Therefore, content validity of the research instrument items in this study was determined through expert knowledge which was sought from the supervisor's whose insights was used to ensure that the research instrument was in with the set of objectives used in this study and content area under study. The suggestions of experts were then examined and implemented to improve the validity of the study tools. The experimental proof that a test is measuring the concept it purports to be assessing is known as construct validity (Scott *et al.*, 2016; Taherdoost, 2016). To determine concept validity, a principal component analysis was used. Taherdoost, (2016)

suggested that if all of the individual loadings are more than 0.5 the instrument is suitable for usage.

3.8.2 Reliability of the research instruments

The consistency and accuracy of data collection methods and technologies are what determine reliability (Bolarinwa, 2015). A measure's reliability reflects how unbiased it is, which ensures that measurements are constant over time and across the instrument's numerous components (Heale & Twycross, 2015). The best suitable reliability measure for this investigation was internal consistency reliability. This is owing to the fact that it is the most commonly used dependability metric in real-world situations. Furthermore, the internal consistency dependability may be calculated with just one sample of data (Kothari, 2004). Cronbach's alpha is commonly used to describe this dependability statistic. This assesses the consistency with which respondents reply to questions. A Cronbach's alpha coefficient of at least 0.80 is advised by (Scott *et al.*, 2016).

3.9 Data analysis and presentation

Data analysis is the theoretical clarification of the entire data, using exact analytic approaches to change the raw data into logical information (Kothari, 2004). Data was analysed in Statistical Package for Social Sciences (SPSS) software (version 21). Both inferential and descriptive statistical metrics was used to summarize the quantitative data. Percentages, frequencies, means, and standard deviations were employed as descriptive statistics, whereas Pearson correlation and Regression analysis were utilized as inferential statistics. Correlation statistics were utilized to determine whether the research variables had a meaningful relationship. To find

important determinants of sustainability, researchers conducted multiple regressions.

A 5% threshold of significance is taken into account. The following was the model:

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \dots \dots \dots \text{Equation 3.2}$$

Where:

y = Sustainability

α = Y Intercept

$\beta_1 \dots \beta_4$ = the changes caused by the various independent variable constructs

e= error

X_1 = Attraction

X_2 = Accommodation

X_3 = Accessibility

X_4 = Amenities

Before the analysis was done, the researcher considered all the assumptions which include; normality of residuals, multicollinearity, linearity of residuals and autocorrelation and homoscedasticity of residuals. Principal Components Analysis (PCA) assumptions included; a sample size of above two hundred respondents and while each variable consisted not less than five cases hence, there was correlation among variables that was considered for PCA. The scatter plot was used to assess the linearity of residuals. If the scatter plot does not follow a curved pattern, the linearity assumption is upheld. Multicollinearity denotes that the independent variables have a perfect linear relation. In this study, the variance inflation factor was applied to calculate it. If it's higher than ten, it means there were major multi-collinearity issues as supported by Wanzala *et al.* (2019).

Autocorrelation of residuals refers to the correlation between members of a series of observations ordered in time or space (Wanzala *et al.*, 2019). When there is no autocorrelation between successive residuals, there is no pattern and the residuals are not strongly connected. There shouldn't be prolonged negative or positive residual runs. The Durbin-d Watson's tests were used to determine if the residuals' non-linearity auto correlation existed (Kothari, 2004). The range of "d" values is 0 to 4. The absence of autocorrelation is shown if the worth of "d" is equivalent to 2. The general guideline was that "d" numbers have to be more than 1.5 and less than 2.5. There was no evidenced auto-correlation as the value was within range ($1.5 < d < 2.5$) (Kothari, 2004; Wanzala *et al.*, 2019).

The "homoscedasticity assumption" states that the variance in the residuals is the same for both small and large values of the predicted value of the dependent variable (Kothari, 2004). The scatter plot was utilized to put the hypothesis to the test. The assumption of homoscedasticity was met if the residuals did not fan out in a triangular pattern. The residuals have a normal distribution if they are normal. Kolmogorov-Smirnov is appropriate for big samples, but the Shapiro-Wilk test is appropriate for smaller samples. If the p-value was more than 0.05, the residuals were normally distributed (Pantano *et al.*, 2017) "presumption" (Kothari, 2004).

3.10 Ethical considerations

Following receipt of an introduction letter from the University of Eldoret (UoE), and the National Commission for Science, Technology and Innovation (NACOSTI). The researcher followed the Ministry of Health (MoH), COVID-19 guidelines. The study's participants volunteered to take part. The data from the study was utilized strictly for academic reasons by the researcher, who treated the data with the highest

anonymity and secrecy. The researcher employed the use of courteous language. The researcher presented the findings fairly, was open to sharing data and results, was respectful of intellectual property and followed research laws and regulations.

3.11 Limitations of the study

Limitations include constraints that hinder findings of the study; design techniques that the scholar selected before or methods used to create validity or the outcome of unexpected tasks while doing the study. The major challenge to this research was the questionnaires that were not completely answered from the respondents during the period of data collection. The researcher had to make a frequent follow up on respondents. Secondly due to Covid 19 pandemic, the researcher had no control over the number of respondents that were then present in the selected sites. Thirdly, majority of the respondents were domestic tourists. Hence, getting intensive information from the rest of the world was limited.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents data analysis, interpretation and discussions on destination dimensions on tourism sustainability in selected sites of Nandi County, Kenya. The parameters were created, analysed and inferences were derived from the data in accordance with particular objectives. It is divided into sections: response rate of questionnaires, general characteristics of respondents, descriptive statistics findings and discussions, inferential analysis and hypothesis results. The results were presented using the frequency Tables.

4.2 Demographic characteristics of the respondents

There were two hundred and thirty-nine questionnaires (239) issued. One hundred and seventy-two (172) were filled in and returned giving a response rate of 72.00% which was adequate for the study. From the responses, Kenyan nationality 158(91.9%) represented the majority of the respondents while the rest were from other countries such as Germany 4(2.3%), India 4(2.3%), USA 2(1.2%) and others such as east African counties such as Uganda, Tanzania etc.

Male respondents constituted the largest fraction (65.1%) as illustrated in Table 4.1. This is attributed to the fact that male in the surrounding community, culturally attend to visitors (researcher) as observed by the researcher. A person's age is related to their experience and understanding of a topic of interest. In terms of age, the majority were under the age of 30 years (62.7 percent) while those above the age of 40 year

constituted the lowest proportion 23(13.4%). According to Martin-Fuentes (2016), tourists who visit various destinations are usually of different age groups. Matarrita-Cascante *et al.* (2019), stated that people of different ages have varied perspectives on a specific topic of research, and this gives full data on the subject from all angles. Boivin & Tanguay (2019), agreed that data from older and more educated respondents offer a little more exact indicator of the traits being examined than data from younger and less educated respondents.

Based on occupation, majority of the respondents were students 72(41.9%) followed by those who were employed 55(32.0%) while the least were from the “others” category (5.2%). In terms of the education level category, all respondent had formal education with majority having attained secondary level education and above 161(93.6%). According to Rajesh (2013), educational attainment indicates how ready people are to contribute to the advancement of research knowledge. Matarrita-Cascante *et al.* (2019), also stated that one's educational level is a decent indication of how well one knows the study's topic. According to the destination visited, a large proportion of tourist had visited Ngabunat caves 46 (26.7%) and Chepkiit Falls 41(23.8%) while few had visited Kaptumo Africa Native Court 6 (3.5%). Destinations most preferred was Ngabunat caves 59 (34.3%) as illustrated in Table 4.1.

Table 4.1: Demographic characteristics of the respondents

n=172		Frequency	Percent
Nationality	Kenyan	158	91.9
	German	4	2.3
	Indian	4	2.3
	USA	2	1.2
	Others	4	2.3
Gender of the respondents	Female	60	34.9
	Male	112	65.1
Age in years	18-20 years	46	26.7
	21-30 years	62	36.0
	31-40 years	41	23.8
	> 40 years	23	13.4
Occupation category	Student	72	41.9
	Employed	55	32.0
	Self-employed	36	20.9
	Others	9	5.2
Education background	Primary	7	4.1
	Secondary	67	39.0
	Tertiary	31	18.0
	Graduate	47	27.3
	Postgraduate	16	9.3
	Others	4	2.3
Destinations visited	Diguna Falls	30	17.4
	Kaptumo Africa Native Court	6	3.5
	Koitalel Samoei Museum	25	14.5
	Ngabunat caves	46	26.7
	Eden spring guest house	24	14.0
	Chepkiit Falls	41	23.8
Destinations most preferred	Diguna Falls	24	14.0
	Kaptumo Africa Native Court	2	1.2
	Koitalel samoei museum	19	11.0
	Ngabunat caves	59	34.3
	Eden spring guest house	31	18.0
	Chepkiit falls	37	21.5

4.3 Influence of tourism attractions on tourism sustainability in selected sites of Nandi County, Kenya

Respondents were asked whether there were satisfied with tourism attractions in destinations they visited. All 172(100.0%) indicated yes. Respondent were then asked

to mention the attractions that were influencing tourism sustainability. Majority indicated natural attraction (42.6%) followed by those who indicated cultural attractions (31.4%) while the rest (26.0%) indicated built attractions as portrayed in Figure 4.1.

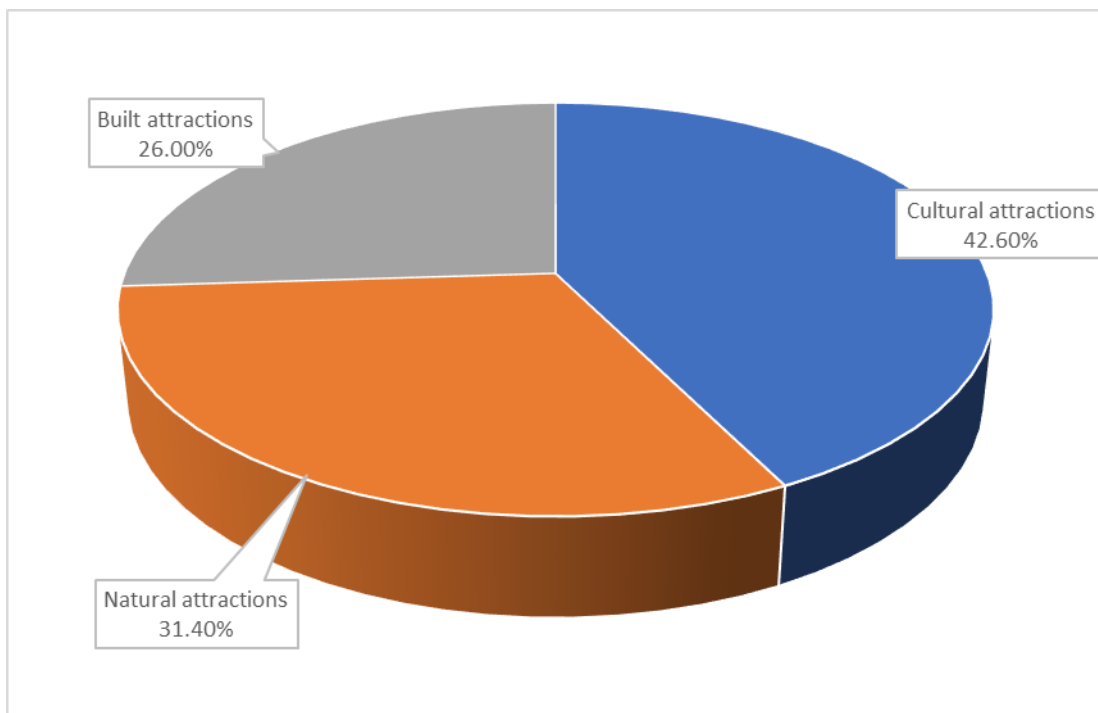


Figure 4.1: Tourism attractions influencing tourism sustainability

4.3.1 Influence of cultural attractions on tourism sustainability

The respondents were asked to state how valuable was cultural dimensions to their visit in Nandi County. Out of total respondents sampled, 19(11.0%) indicated that they were not very valuable, 16(9.3%) not valuable, 38(22.1%) undecided, 50(29.1%) valuable while 49(28.5%) very valuable. In cross tabulation with nationality of the respondents, most Kenyans indicated that cultural attractions were valuable 93 (58.86%) while few indicated otherwise 18.93%). Only 22.2% were neutral about the statement. Equally, most respondents of German nationality (75.0%) argued that those cultural attractions were valuable with a few of them being neutral (25.0%). In

contrast, respondents from ‘other’ category of nationalism indicated other with majority (50.0%) indicating that cultural attractions were not valuable as portrayed in Figure 4.2.

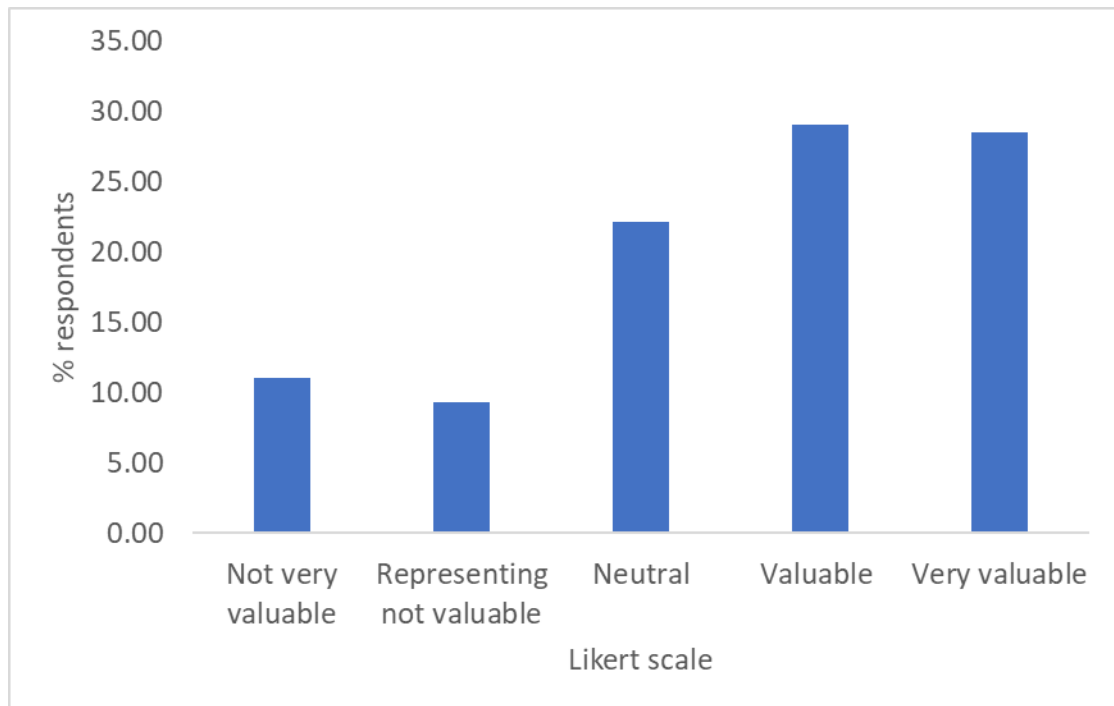


Figure 4.2: Influence of cultural attractions on tourism sustainability

From the research findings, majority of the interviewed respondents indicated that cultural attractions have influence on tourism sustainability. This implies that cultural attractions are valuable to their visit in Nandi County. The research findings are in line with those of Nicolau (2011), that cultural attractions are valuable to tourists visit to any destination. Yasami *et al.* (2021), adds that tourists are satisfied when their needs such as cultural attractions, are met in a destination.

4.3.2 Influence of natural attractions to tourism sustainability

The respondents were asked to state how valuable was natural attractions were to tourism sustainability in Nandi County. Majority (50.0%) indicated it was valuable

while few (2.3%) indicated that it was not valuable. Only 15.7% were undecided. In cross tabulation with nationality of the respondents, most Kenyans indicated that natural attractions were very valuable 78(49.2%). Only 15.2% were neutral about the statement. Most respondents of German nationality (75.0%) opined those natural attractions were very valuable. In contrast, 50.0% of respondents from USA nationalism indicated not very valuable while the rest indicated very valuable as portrayed in Figure 4.3.

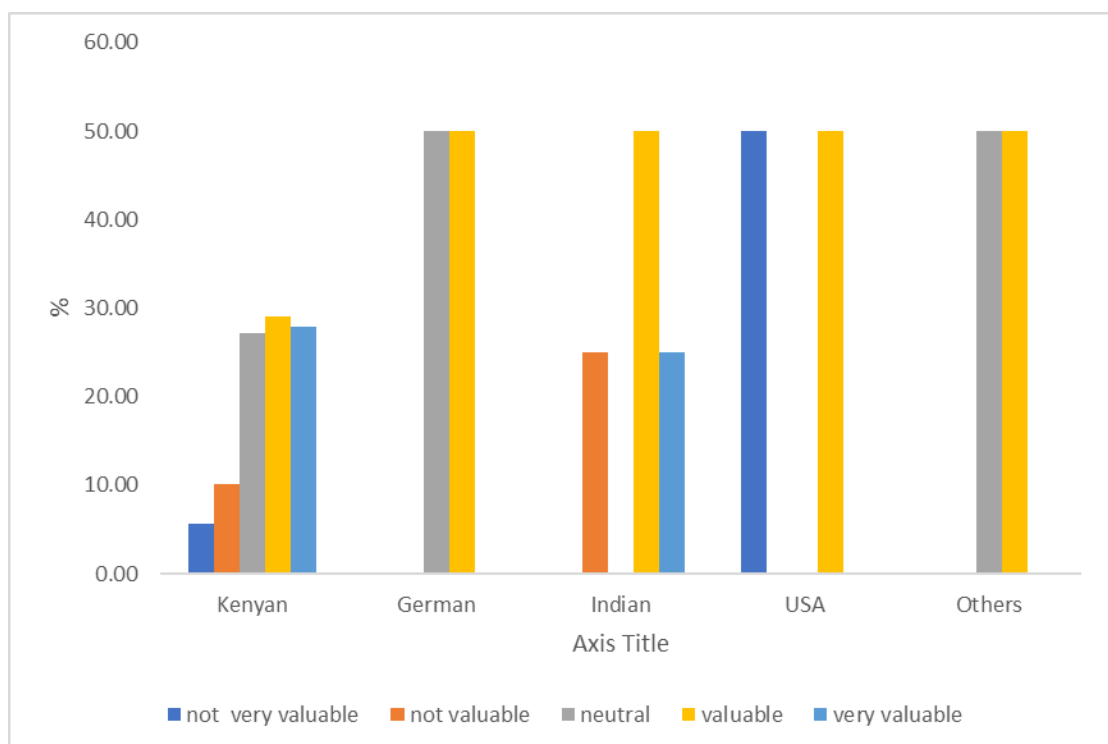


Figure 4.3: Influence of natural attractions to tourism sustainability

On natural attractions, finding indicated that they were valuable implying that natural attractions are valuable to tourists visit in Nandi County. The findings of the study research are consistent with those of Pantano *et al.* (2017), who found that tourists prefer natural attractions when picking which place to visit.

4.3.3 Influence of built attractions to tourism sustainability

The respondents were asked to state how valuable was built attractions to tourism sustainability in Nandi County. On built attractions, majority (30.8%) indicated they were valuable followed by those who indicated that they were undecided on the statement (27.3%). Only 5.8% of the respondents who opined that built attractions were not very valuable as illustrated in Figure 4.4. In cross tabulation with nationality of the respondents, few Kenyans indicated that built attractions were not very valuable 9(5.7%). Only 27.8 % were indicated they were very valuable. 50.0 of German nationality were neutral while the rest indicated they were valuable. In contrast, 50.0% of respondents from USA nationalism indicated not very valuable while the rest indicated very valuable.

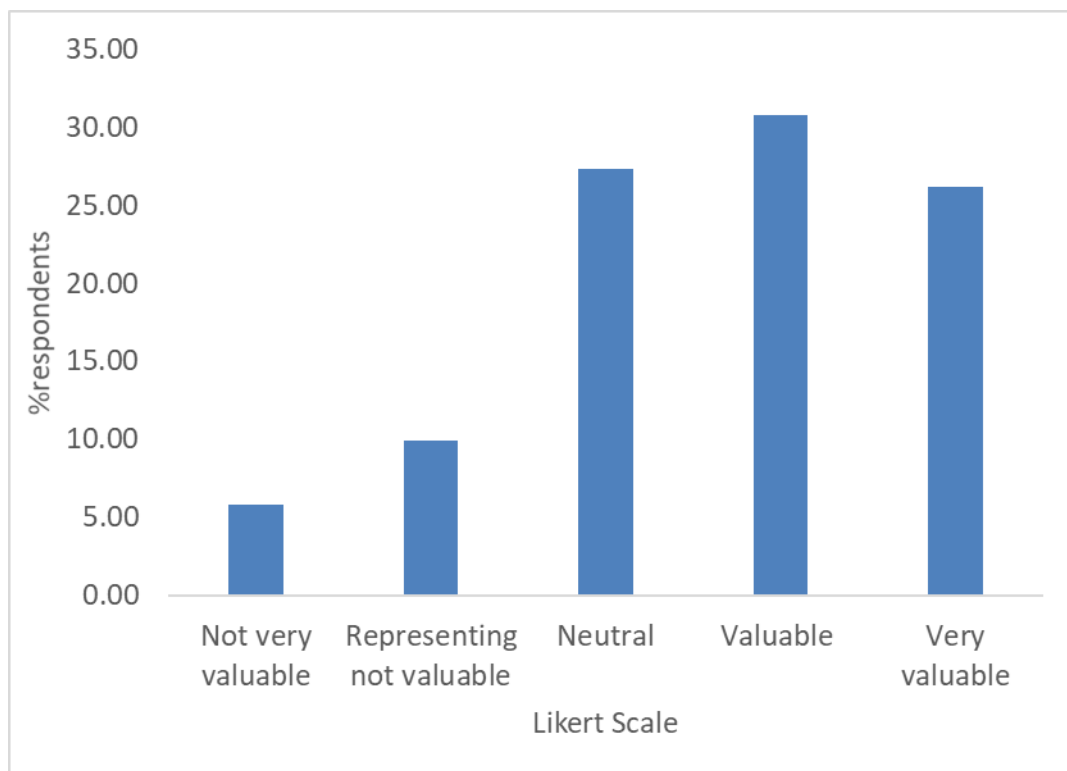


Figure 4.4: Influence of built attractions to tourism sustainability

The finding established that the built attractions were valuable to tourists visiting in Nandi County. The findings of the research agree with those of Boniface *et al* (2016) that built attractions influences the tourist's decision to visit a certain destination. Built attractions also increases attractiveness of a tourism destination. It includes attributes like package tours and amenities for sports and leisure, hotel and transport facilities. These attractions together with natural attractions are significant predictors of revisit intention (Choo *et al.*, 2016).

4.4 Influence of accessibility on tourism sustainability in selected sites of Nandi County, Kenya

The study's second goal was to investigate the impact of accessibility on tourist sustainability in chosen locations of Nandi County, Kenya. The study focused on signage, geographical proximity and road conditions as the primary accessibility sub-concepts. The researcher wanted to know how respondents felt about the impact of such sub-constructs on tourism sustainability in selected sites of Nandi County, Kenya.

4.4.1 Importance of signage on accessibility

The respondents were asked to state how valuable was signage to their visit in Nandi County. Majority 50(29.1%) indicated that signage were valuable followed by those who were undecided while few 17 (9.9%) indicated that signage were not very valuable in determining tourism accessibility as portrayed in Figure 4.5. In cross tabulation with nationality of the respondents, majority of Kenyans indicated that signage were valuable 16 (30.4%) while few indicate they were not very valuable. About indicated they undecided. In contrast, 75.0% of Indians nationality was

undecided. Gender of the respondent did not influence responses on the importance of signage on accessibility.

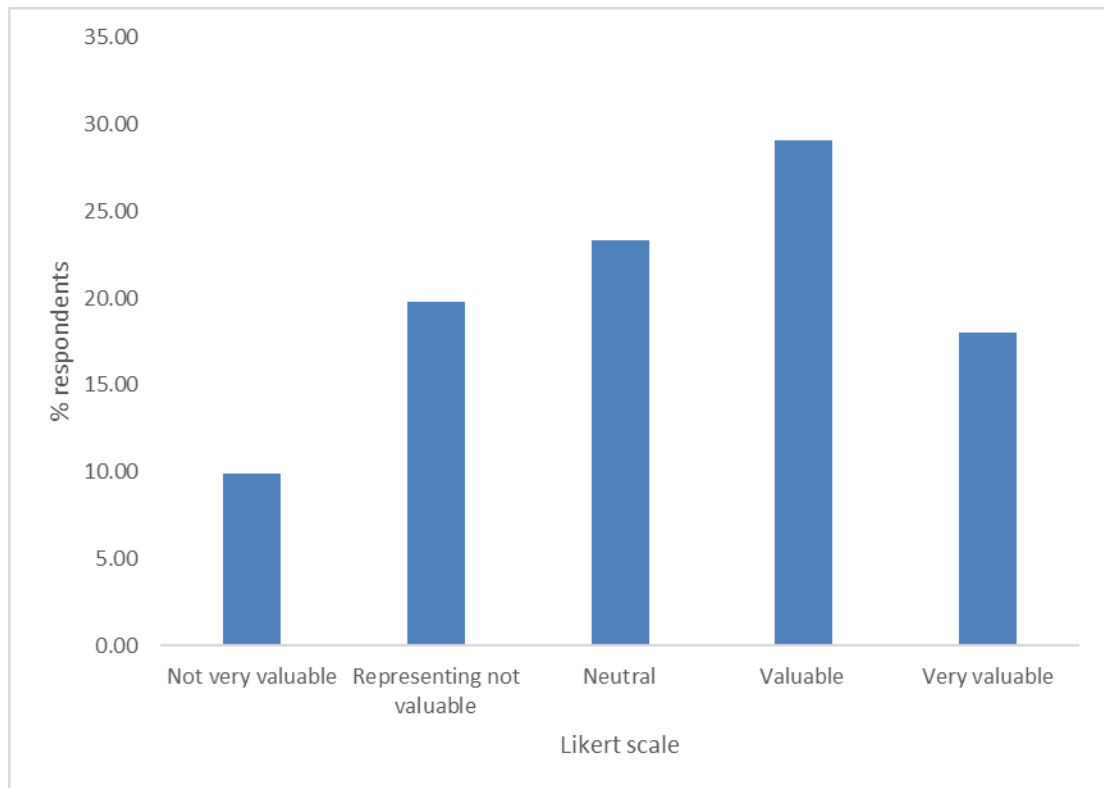


Figure 4.5: Importance of signage on accessibility

The findings indicated that signage were importance in influencing accessibility of tourist to a destination. This is attributed to the fact that tourists are able to get to a destination if proper signage are erected. The same findings were echoed by Swarbrooke (2012), who highlighted the importance of signage to tourism destination accessibility which thereof influence sustainability.

4.4.2 Importance of Geographical Proximity on Accessibility

The research study also intended to find out whether geographical proximity was valuable among the visitors who visited various tourist destinations in Nandi County. Majority 49(28.5%) of the respondents were in agreement that geographical proximity was very valuable in influencing accessibility which directly influence tourism

sustainability of an area. Few 13 (7.6%) respondents however opined that geographical proximity was not very valuable in influencing tourist accessibility in a tourist destination as portrayed in Figure 4.6. Gender, age and nationalism of the respondents did not influence the responses pertaining importance of geographical proximity on accessibility.

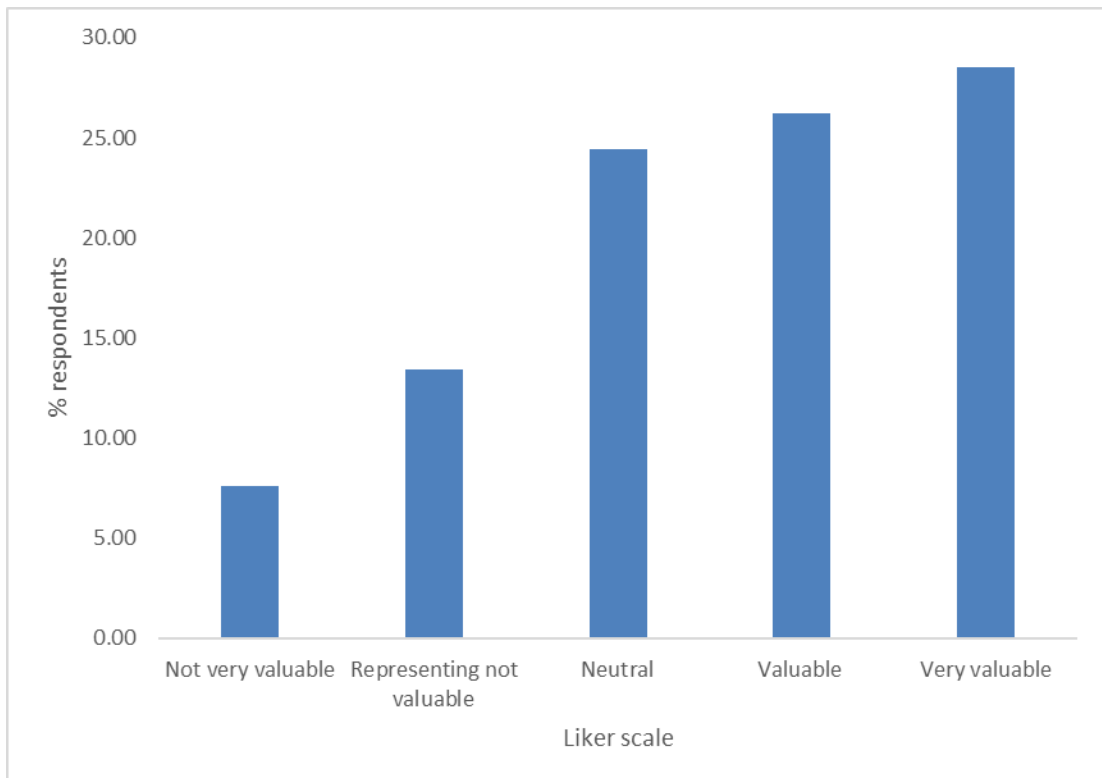


Figure 4.6: Importance of Geographical Proximity on Accessibility

The findings established that geographical proximity was valuable among the visitors who visited various tourist destinations in Nandi County. This is attributed to the fact that the frequency and capability of travel to a destination may be influenced by increasing or decreasing distance to a destination. The study's findings are consistent with those of Dwyer *et al.* (2010), who found that geographical closeness is important for visitors visiting.

4.4.3 Importance of Road Conditions on Accessibility

The study also sought to determine whether road conditions were valuable to the tourists who visited various destinations in Nandi County. Majority of the respondents 47 (27.3%) were undecided while 33 (19.2%) indicated that road condition was very valuable in influencing accessibility. Only 29 (16.9%) who felt that road condition was no very valuable in influencing accessibility as portrayed in Figure 4.7. Age, education as well as gender of the respondents did not influence the responses from the respondents interviewed.

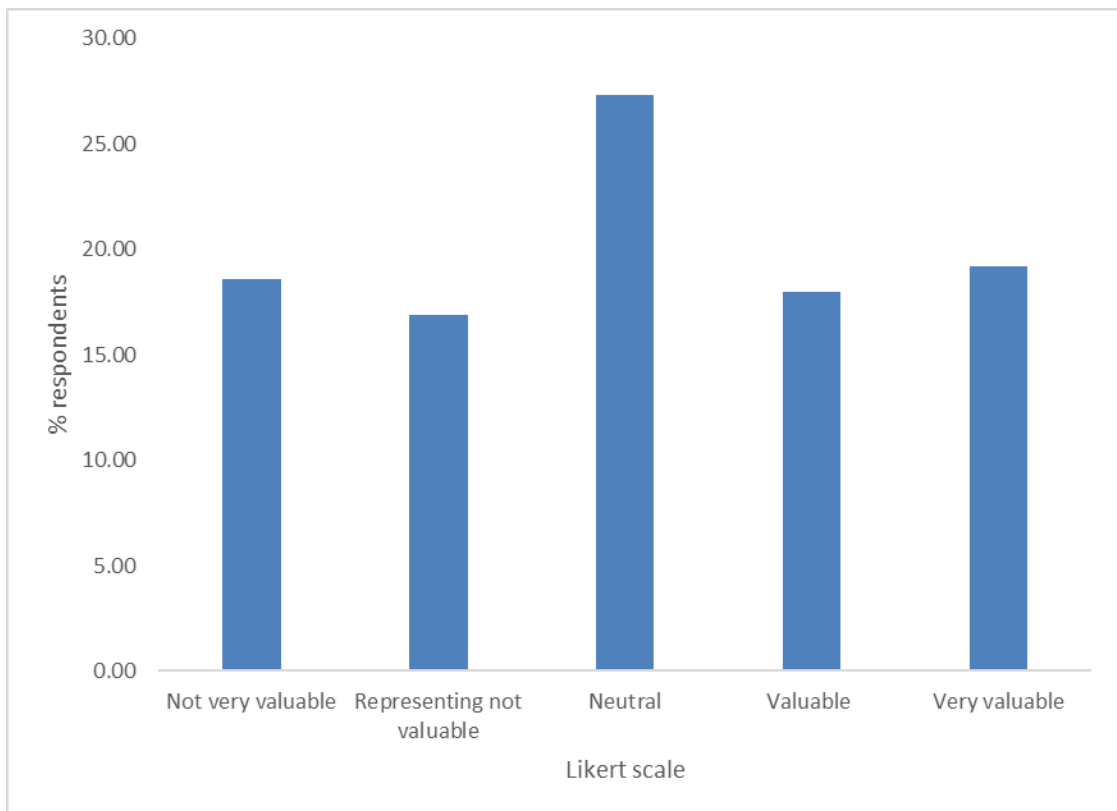


Figure 4.7: Importance of Road Conditions on Accessibility

The findings revealed that road conditions are valuable to tourists visit in Nandi County with findings being echoed by Boniface *et al.* (2020), who highlighted the importance of roads conditions to tourists visit.

4.5 Influence of Accommodation Facilities on Tourism Sustainability in selected sites of Nandi County, Kenya

The third research goal was to evaluate the impact of lodging facilities on tourist sustainability in chosen locations in Nandi County, Kenya. The study focused on tourism information centres, provided services and quality of meals in hotels or restaurants as the main sub constructs of accommodation. The researcher was concerned as to how respondents felt about the impacts of sub-constructs affect tourism sustainability in selected sites of Nandi County, Kenya.

4.5.1 Tourism Information Centers

The study also tried to establish whether accommodation facilities were valuable to their visit in Nandi County. According to findings, 35 (20.3%) opined Tourism information centres being not very valuable, 48 (27.9%) not valuable, 35 (20.3%) undecideds, while 29 (16.9%) valuable while 14.5% opined to be very valuable as portrayed in Figure 4.8.

Gender, age and nationalism of the respondents did not influence the responses pertaining to importance of Tourism information centres on influencing accommodation facilities as attraction which influence tourism sustainability. This implies that accommodation facilities were not valuable to their visit in Nandi

County. The study findings disagree with the findings of Chin *et al.* (2018), that accommodation facilities are valuable to tourists' visit to a certain destination.

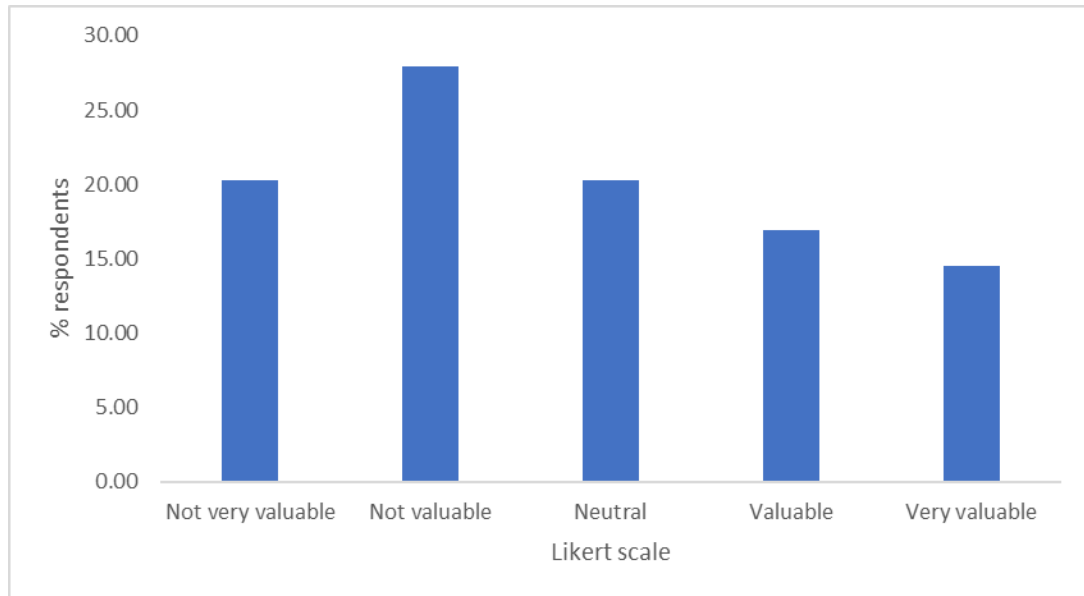


Figure 4.8: Tourism Information Centres

4.5.2 Quality of Services

Another item of interest was whether quality of services was valuable to their visit in Nandi County. A large proportion of respondents (24.4%) indicated quality of services was valuable in influencing accommodation facilities on tourism sustainability in selected sites of Nandi County, Kenya. This was followed by those respondents who were undecided (24.4%) while few (19.2%) were of view that it was very valuable as portrayed in Figure 4.9.

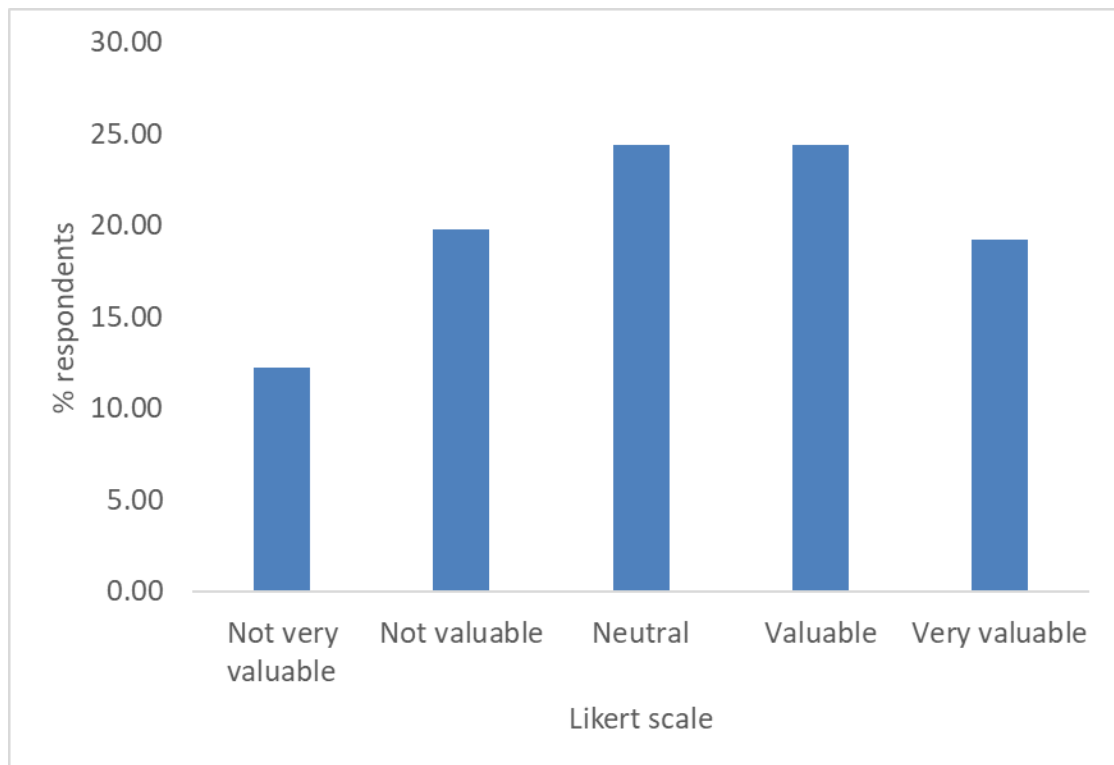


Figure 4.9: Quality of Services

From the findings, it was indicated that quality of services is valuable to tourist visiting different sites in Nandi County. The findings are comparable to those of Choo *et al.* (2016), that quality of services is valuable to tourists visit to a certain destination.

4.5.3 Quality of Meals in Hotels/Restaurants

In regards to quality of meals in hotels or restaurants, 19.2% opined that in was not very valuable, 22.1% not valuable, 16.9% were undecided, 21.5% valuable while 20.3% very valuable. This implies that quality of meals in hotels or restaurants is valuable to their visit in Nandi County as portrayed in Figure 4.10. Gender, age and nationalism of the respondents did not influence the responses pertaining to importance quality of meals in hotels/restaurants influencing accommodation facilities

which in turn influence tourism sustainability in selected sites of Nandi County, Kenya.

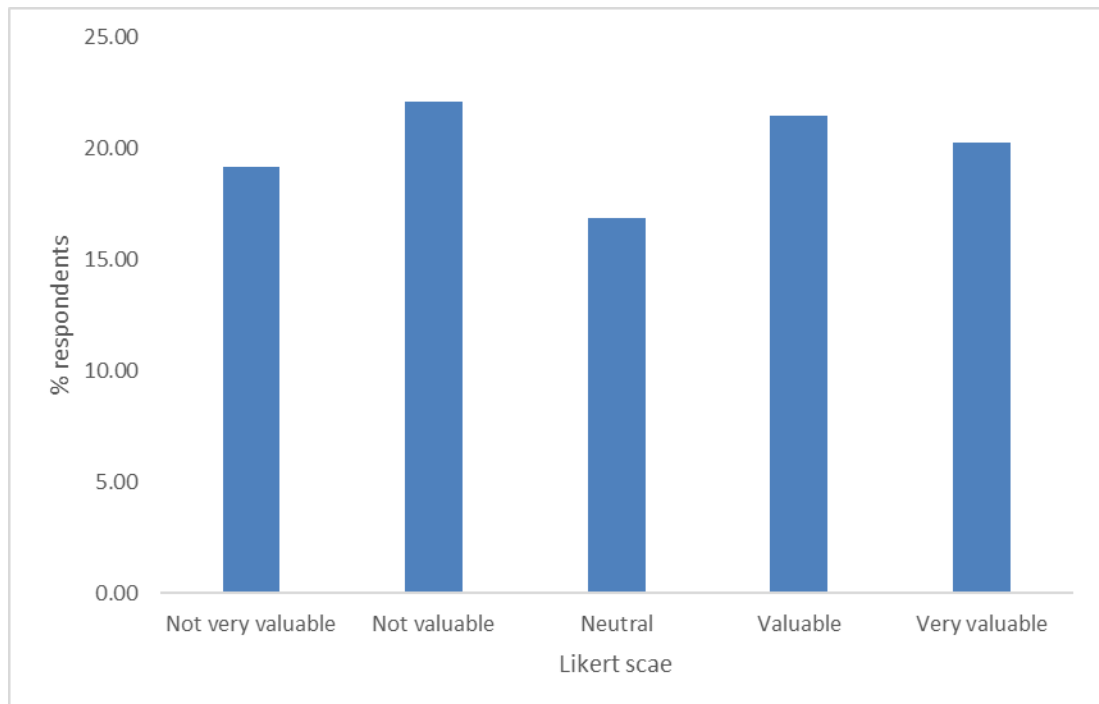


Figure 4.10: Quality of meals in hotels/restaurants

The study findings resemble that of Battour *et al.* (2018) & Chin *et al.* (2018), that quality of meals in hotels or restaurants is valuable to tourists' visit to a certain destination. One of the respondents who was interviewed revealed that there are not enough accommodation facilities to cater for the needs of tourists in various regions of Nandi County.

4.6 Influence of Amenities on Tourism Sustainability in Selected sites of Nandi County, Kenya

The fourth (4th) aim of the research study was to assess the influence of amenities on tourism sustainability in selected sites of Nandi County, Kenya. The study focused on information centres, supporting systems and electricity and water supply as the main sub constructs of accommodation. The researcher was concerned as to how

respondents felt about the impact of such sub-constructs on tourist sustainability in selected sites of Nandi County, Kenya.

4.6.1 Information Centers

The respondents were asked whether information centres were valuable to their visit in Nandi County, 9.9% opined that information centres were not very valuable, 19.2% not valuable, 16.3% were undecided, 29.1% valuable while 25.6% very valuable as portrayed in Figure 4.11. Demographic characteristics of the respondents did not influence the responses pertaining to importance information centres in influencing amenities which in turn influence tourism sustainability in selected sites of Nandi County, Kenya

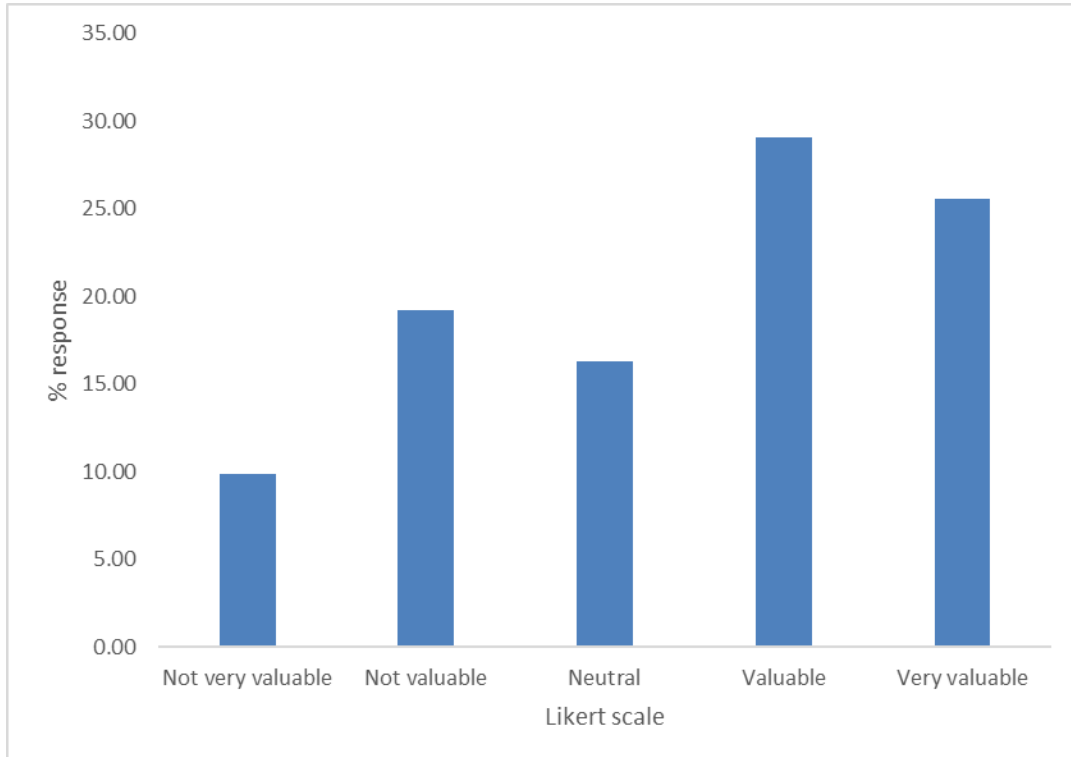


Figure 4.11: Information centers

The research findings implied that information centres were valuable to tourist visit and influence of amenities which in return influenced tourism sustainability in selected sites of Nandi County, Kenya. The research study findings are in line with the findings of Balakrishnan *et al.* (2011), that information centres are valuable to tourists visit to a certain destination.

4.6.2 Supporting systems

The research study also sought to assess whether supporting systems were valuable to the respondents' visit to Nandi County, 9.9% revealed that it was not very valuable, 12.2% not valuable, 23.3% were undecided, 24.4% valuable while 30.2% opined that it was very valuable. Demographic characteristics of the respondents did not influence the responses pertaining to importance supporting systems in influencing amenities which in turn influence tourism sustainability in selected sites of Nandi County, Kenya (Figure 4.12)

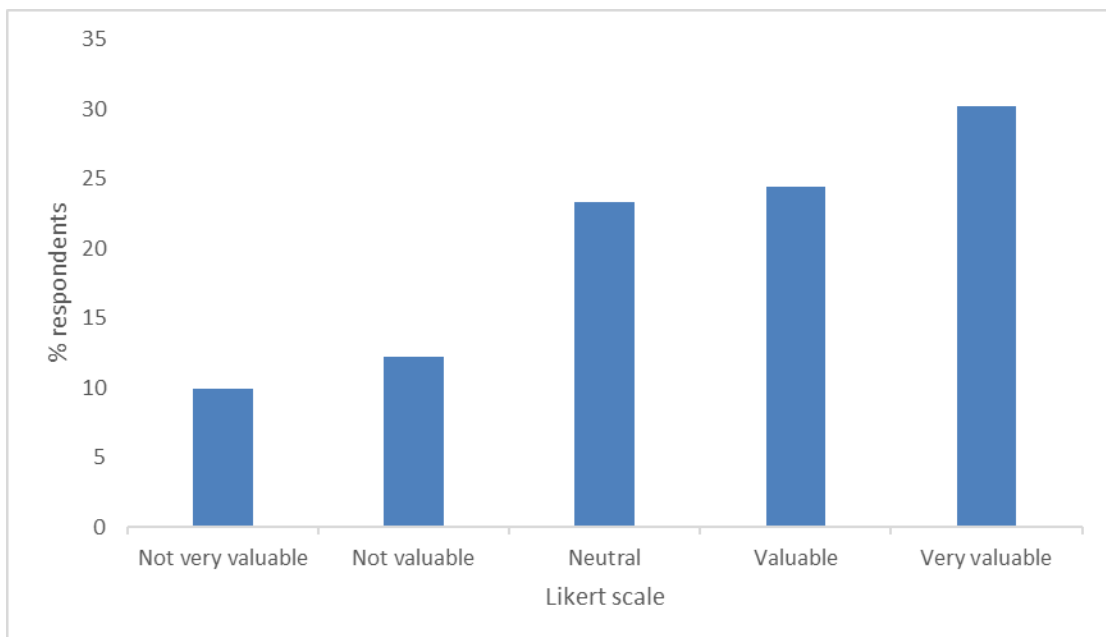


Figure 4.12: Supporting systems

This implies that supporting systems are valuable to their visit in Nandi County. The results are in tandem with that of Li *et al.* (2021), that supporting systems are valuable to tourists' visit to a certain destination.

4.6.3 Electricity and Water Supply

In relation to electricity and water supply, majority of the respondents 61(35.5%) opined that they were very valuable in influencing amenities on tourism sustainability in selected sites of Nandi County, Kenya as illustrated in Figure 4.13. A small proportion of respondents however indicated that electricity and water supply was not very valuable (7.6%) while 22.7% were undecided. Demographic characteristics of the respondents did not influence the responses pertaining to importance electricity and water supply in influencing amenities which in turn influence tourism sustainability in selected sites of Nandi County, Kenya.

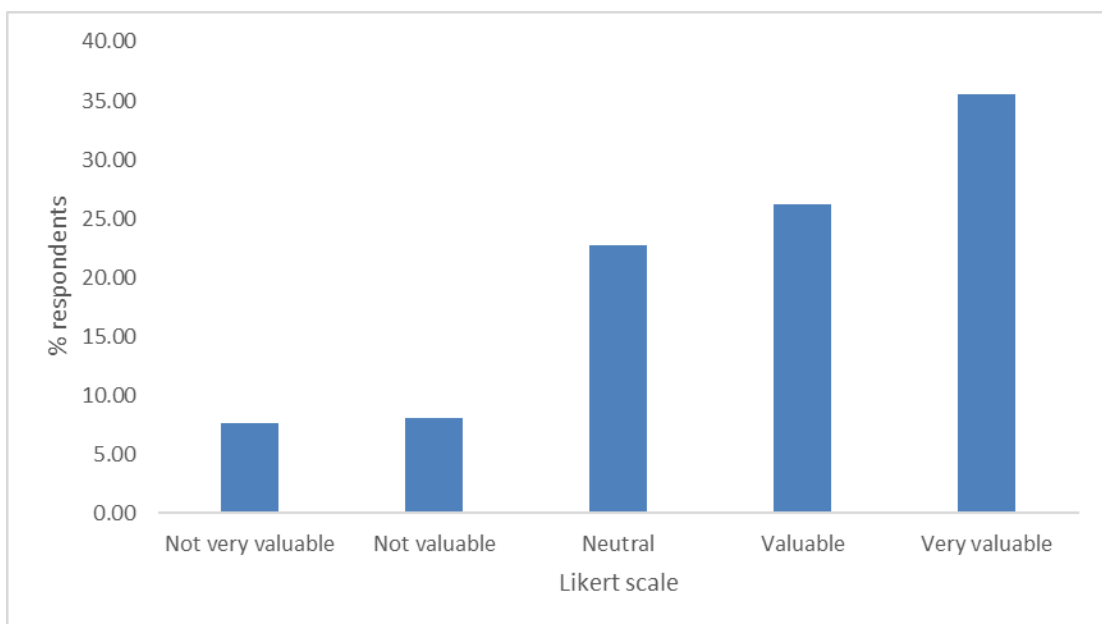


Figure 4.13: Electricity and Water Supply

The study findings are similar to that of Andreani *et al.* (2017) that electricity and water supply (Chin *et al.*, 2018) are valuable to tourists' visit to a certain tourist destination.

4.7 Satisfaction Dimensions on Sustainability of Tourism in Nandi County

4.7.1 Satisfaction on Attractions in Nandi County

Separate Likert scores of 1-5, respondents were asked to express their opinions on tourism sustainability. As far as attractions were of concern, majority 78(45.3%) were very satisfied with natural attractions followed by those who were satisfied 52 (30.2%) while few 5.8% were not satisfied as illustrated in Table 4.2. On cultural attractions, few respondents 10 (5.8%) indicated that they were not satisfied, while majority 62(36.0%) were satisfied. On built attractions, a small proportion of respondents 13(7.6%) revealed that they were not very satisfied with built attractions on tourism sustainability in Nandi County. They were followed by those who were not satisfied 19(11.0%), while 55 representing 32.0% were satisfied as illustrated in Table 4.2. These study findings are in line with the findings of Asmelash & Kumar (2019b), Marinao-Artigas & Barajas-Portas (2021) and Rasoolimanesh *et al.* (2020) that tourists are satisfied with natural attractions, cultural attractions and built attractions on tourism sustainability.

Table 4.2: Descriptive statistics for tourism sustainability

Destination dimension	Component	Sub- constructs	Not very satisfied	Not satisfied	Neutral	Satisfied	Very satisfied
Attractions	1	Natural attractions	10 (5.8%)	10 (5.8%)	22(12.8%)	52(30.2%)	78(45.3%)
	2	Cultural attractions	10 (5.8%)	10 (5.8%)	38(22.1%)	62(36.0%)	52(30.2%)
	3	Built attractions	13 (7.6%)	19 (11.0%)	51(29.7%)	55(32.0%)	34(19.8%)
Accessibility	1	Signages	21 (12.2%)	33 (19.2%)	36(20.9%)	48(27.9%)	34 (19.8%)
	2	Geographic proximity	9 (5.2%)	19 (11.0%)	47(27.3%)	56(32.6%)	41 (23.8%)
	3	Road conditions	35 (20.3%)	36 (20.9%)	44(25.6%)	27(15.7%)	30 (17.4%)
Accommodation	1	Variety of facilities	37 (21.5%)	35 (20.3%)	42(24.4%)	43(25.0%)	15 (8.7%)
	2	Quality of service	20 (11.6%)	26 (15.1%)	42(24.4%)	53(30.8%)	31 (18.0%)
	3	Quality of meals in hotels or restaurants	28 (16.3%)	31 (18%)	44(25.6%)	39(22.7%)	30 (17.4%)
Amenities	1	Information centres	18 (10.5%)	33 (19.2%)	35(20.3%)	43(25.0%)	43 (25.0%)
	2	Supporting systems	13 (7.6%)	39 (22.7%)	40(23.3%)	49(28.5%)	31 (18.0%)
	3	Electricity and water supply	13 (7.6%)	27 (15.7%)	33(19.2%)	54(31.4%)	45 (26.2%)

Numbers in brackets are in percentages (n=172)

4.7.2 Satisfaction on accessibility in Nandi County

In regards to signage's, a small proportion of the respondents was not very satisfied, 21(12.2%) while 56(27.9%) was satisfied. The respondents were also asked to state whether they were satisfied with geographical proximity on tourism sustainability in Nandi County. Majority 56 (32.6%) were satisfied while few were not with geographical proximity on tourism sustainability in Nandi County. On road conditions, 25.6% were undecided, 15.7% satisfied while 17.4% very satisfied as portrayed in Table 4.2. The research study findings are in line with those of Martin *et al.* (2021), that tourists are satisfied with signages on sustainability, geographical proximity (Chin *et al.*, 2018), and road conditions (Swarbrooke, 2012) on tourism sustainability.

4.7.3 Satisfaction on accommodation in Nandi County

The respondents were tasked to respond on whether they were satisfied with information centres in accommodation facilities which influences tourism sustainability in Nandi County. Majority 43 (25.0%) were satisfied while, 24.4% were undecided. As far as quality of service was of concern, 20 (11.6%) were not very satisfied while majority representing 30.8% were satisfied. In relation to quality of meals in hotels or restaurants, 16.3% were not very satisfied, 18.0% were not satisfied, 25.6% were undecided, 22.7% were satisfied while 17.4% were very satisfied. The results disagree with those of Choo *et al.* (2016), that tourists are not satisfied with accommodation facilities. As far as responses on quality of services on sustainability were of concern, the study findings were in agreement with those of Yoo & Bai (2013). Tubey & Tubey (2014), indicated tourists are satisfied with the quality of meals in hotels or restaurants which agrees with this research finding.

4.7.4 Satisfaction on amenities in Nandi County

The respondents were tasked to respond on whether they were satisfied with the information centers as an amenity in Nandi County. Majority (25.0%) were satisfied while 25.0% very satisfied with the information centers in Nandi County while few (10.5%) were not very satisfied as illustrated in Table 4.2. On supporting systems, 7.6% were not very satisfied, 22.7% not satisfied, 23.3% were undecided, 28.5% satisfied while 18.0% very satisfied. The research study also wanted to establish whether the respondents were satisfied with electricity and water supply in Nandi County, where 7.6% indicated that they were not very satisfied, 15.7% not satisfied, 19.2% were undecided while 31.4% indicated that they were satisfied. The study findings are similar to that of Chin *et al.* (2018), that tourists are satisfied with the information centers. Battour *et al.* (2018), argued that tourist are satisfied with supporting systems which is in line with the findings of this research. A large proportion of the respondents were similarly satisfied with electricity and water supply in Nandi County which disagrees with the findings of Kai *et al.* (2012), that tourists are not satisfied with electricity and water supply as amenities for sustainable tourism.

4.8 Revisit, recommendation and satisfaction with general services

On the issue of revisit, majority of the respondents indicated that they would definitely come back 88(51.2%) as compared to those who indicated they would not 5 (5.8%) as portrayed in Figure 4.14. The study findings are similar to that of Hutchinson *et al.* (2009), that tourists would revisit tourist's sites. One of the respondents who was interviewed revealed that there are visitors who come at a certain destination frequently.

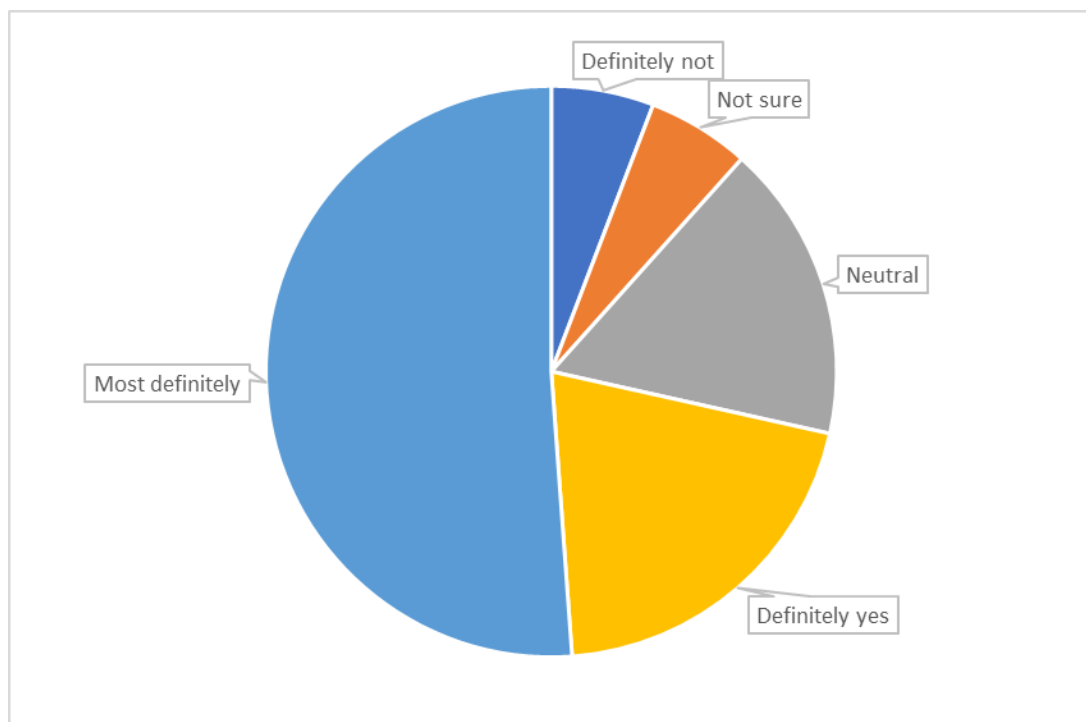


Figure 4.14: Responses on whether respondents were willing to come back to the destination

The respondents were also asked whether they would recommend anyone to visit the destinations in Nandi County. Majority indicated definitely 25.0% and definitely yes 47.1% in comparison with those who opined definitely not 2.9%, as portrayed in Figure 4.15. This indicates that most of the participants would recommend anyone to visit the destinations in Nandi County. The study finding resembles that of Orel & Kara (2014), that tourists are willing to recommend anyone to visit the destinations they visit.

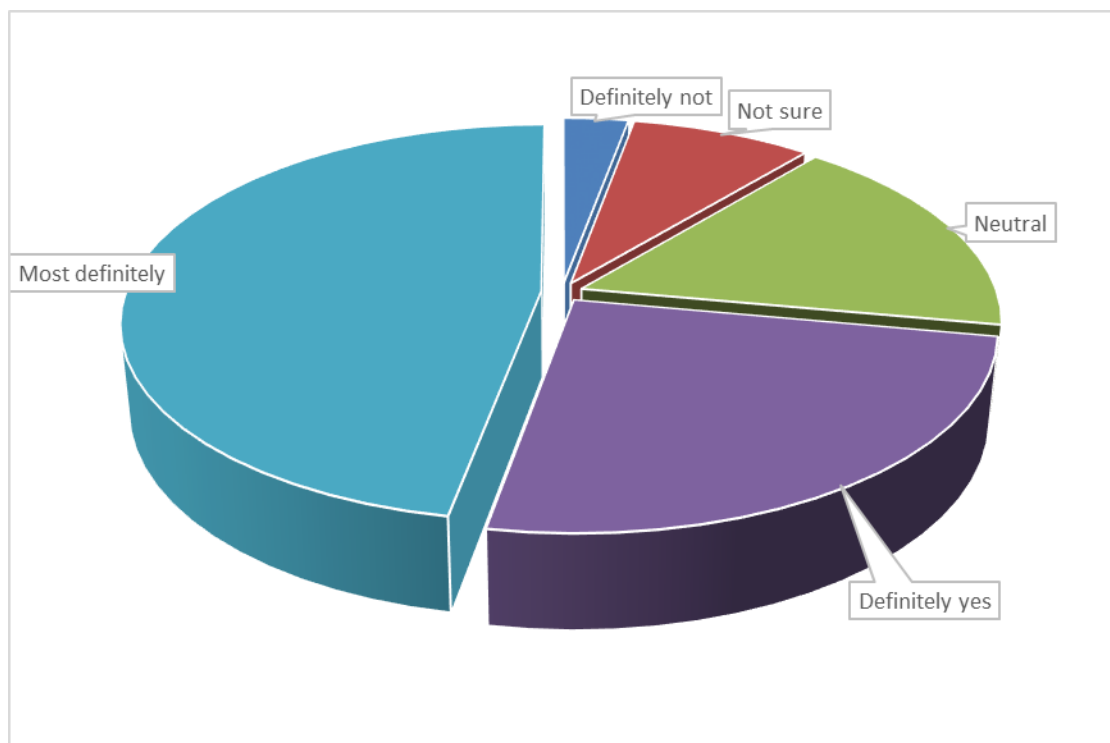


Figure 4.15: Responses on whether respondents were willing to recommend anyone to visit destination

Majority also added that they were satisfied with the general services in the destinations (35.5%). The study findings are similar to that of Choo *et al.* (2016), that the tourists are satisfied with the general services in destinations. In conclusion, the mean tourism sustainability score for was 3.49 ± 1.84 .

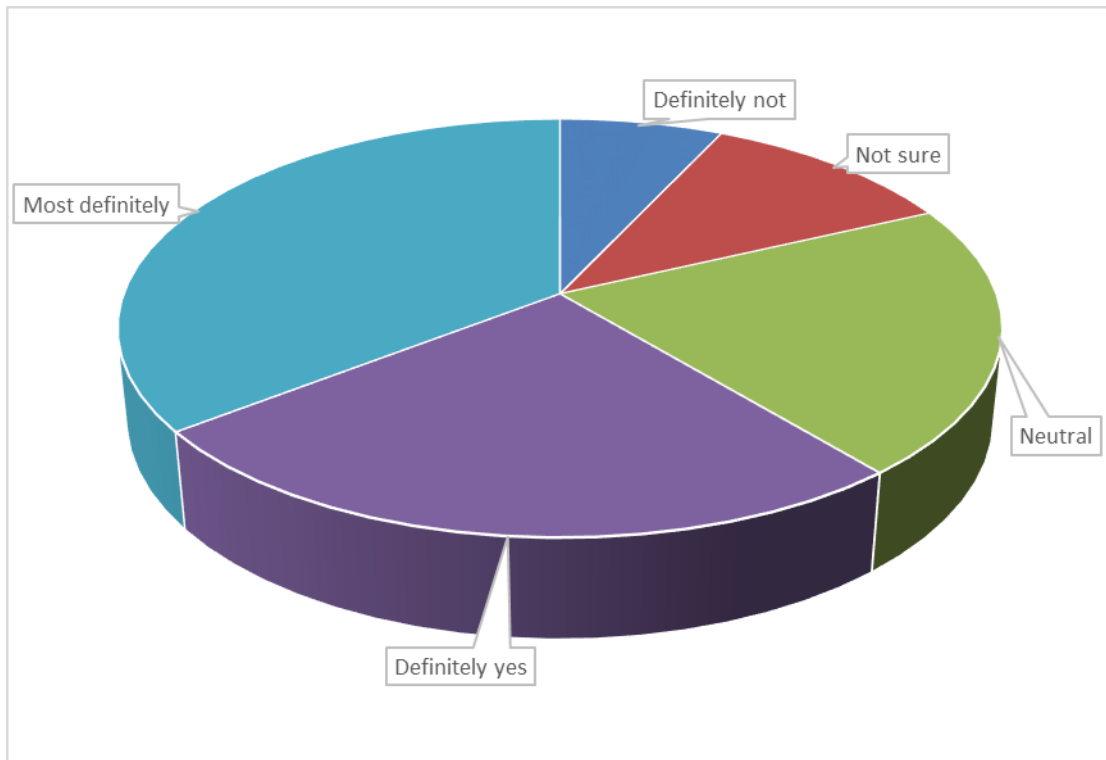


Figure 4.16: Responses satisfaction on general services

4.9 Factor analysis

4.9.1 Sampling adequacy

According to Scott *et al.* (2016), the validity of a study determines whether it accurately measures what it was designed to assess or whether the research findings are accurate. Henry Kaiser developed the Measure of Sampling Adequacy (MSA) of factor analytic data matrices. This is just a function of comparing the squared components of the 'image' matrix to the squares of the original correlations. The total

MSA is computed, along with estimates for each item. The Kaiser-Meyer-Olkin (KMO) index is the name of the index.

According to Heale & Twycross (2015), the findings of Kaiser-Mayer-Olkin sample adequacy metrics were 0.84, which is average. The sample was considered to be adequate and significant ($p < 0.0001$) for the research using the Bartlett's Test of Sphericity

4.9.2 Factor analysis on destination dimensions

Factor analysis established three components with the first components having a variance of 35.75%, followed with second with 11.01% while the third components had a variance of 10.45, the total cumulative variance was 57.20% as summarised in Table 4.3.

Table 4.3: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total
1	4.29	35.75	35.75	4.29	35.75	35.75	3.62
2	1.32	11.01	46.76	1.32	11.01	46.76	2.90
3	1.25	10.45	57.20	1.25	10.45	57.20	1.75
4	0.94	7.85	65.05				
5	0.78	6.52	71.57				
6	0.70	5.85	77.42				
7	0.62	5.18	82.60				
8	0.53	4.42	87.02				
9	0.48	4.00	91.01				
10	0.40	3.34	94.34				
11	0.39	3.22	97.57				
12	0.29	2.44	100.00				

Extraction Method: Principal Component Analysis. When components are correlated, sums of squared loadings cannot be added to obtain a total variance

(Source: Author, 2021).

To choose the components, scree plot was used to show distribution of components with respective Eigen values. For component 1, the respective Eigen value was above 4 while component 3 was above 1 as illustrated in Figure 4.17.

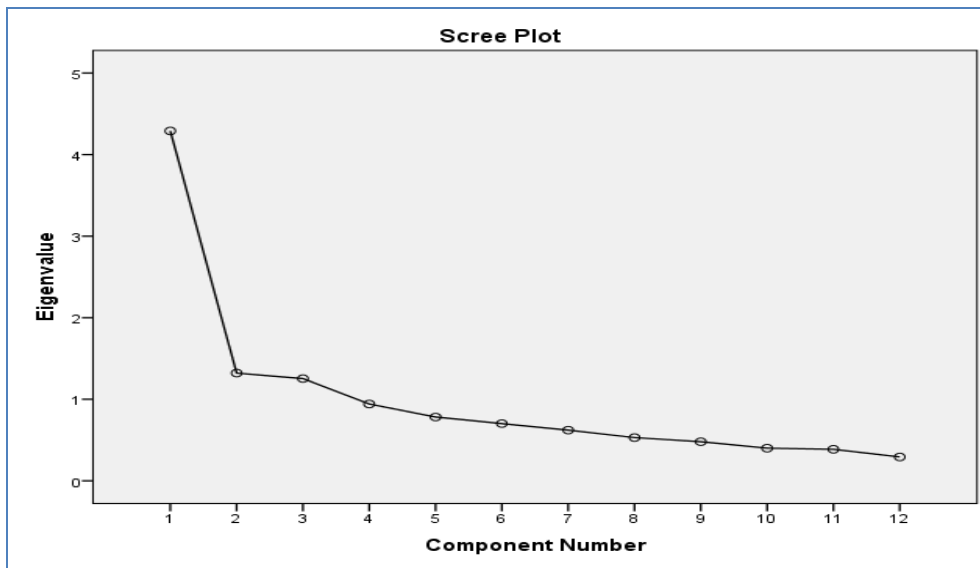


Figure 4.17: Scree plot for components

The rows number in the Extraction Sums of Squared Loadings panel Tables reflects the number of components kept, whilst the Rotation Sums of Squared Loadings values represent the variance distribution after the Varimax rotation. The total amount of variation is redistributed among the retrieved components using Varimax rotation, which attempts to maximize the variance of each factor. Rotated component matrix the variables (Table 4.4), with the highest factor loading (>0.5) in each kind of destination dimension were retrieved. These variables had values more than 0.50, whereas those less than this threshold were removed. After the Varimax rotation. Among the variables with higher loadings included Built attractions (0.57), Signages (0.63) Road condition (0.59), Variety of facilities (0.65), Quality of service (0.73), Quality of meals (0.59), Tourists' information centres (0.64), Supporting systems (0.73) in components 1, Quality of meals (0.59) in components 2, Natural attractions

(0.70) and Cultural attractions (0.65) as illustrated in Table 4.4. Varimax and Kaiser Normalization was as well used because it abridges the factors by first normalizing the factor loadings and then rotating and de-normalizing them. This improves the scale's reliability and validity. The chosen components were combined to provide composite values, which were then employed in correlation and regression analysis.

Table 4.4: Rotated component matrix on destination dimensions

		Component		
		1	2	3
Attractions	Natural attractions			0.70
	Cultural attractions			0.65
	Built attractions	0.57		
	Signage	0.63		
Accessibility	Geographical proximity			
	Road condition	0.59		
Accommodation	Variety of facilities	0.65		
	Quality of service	0.73		
Amenities	Tourists' information centres	0.64		
	Supporting systems	0.73		
	Electricity & water supply	0.71		

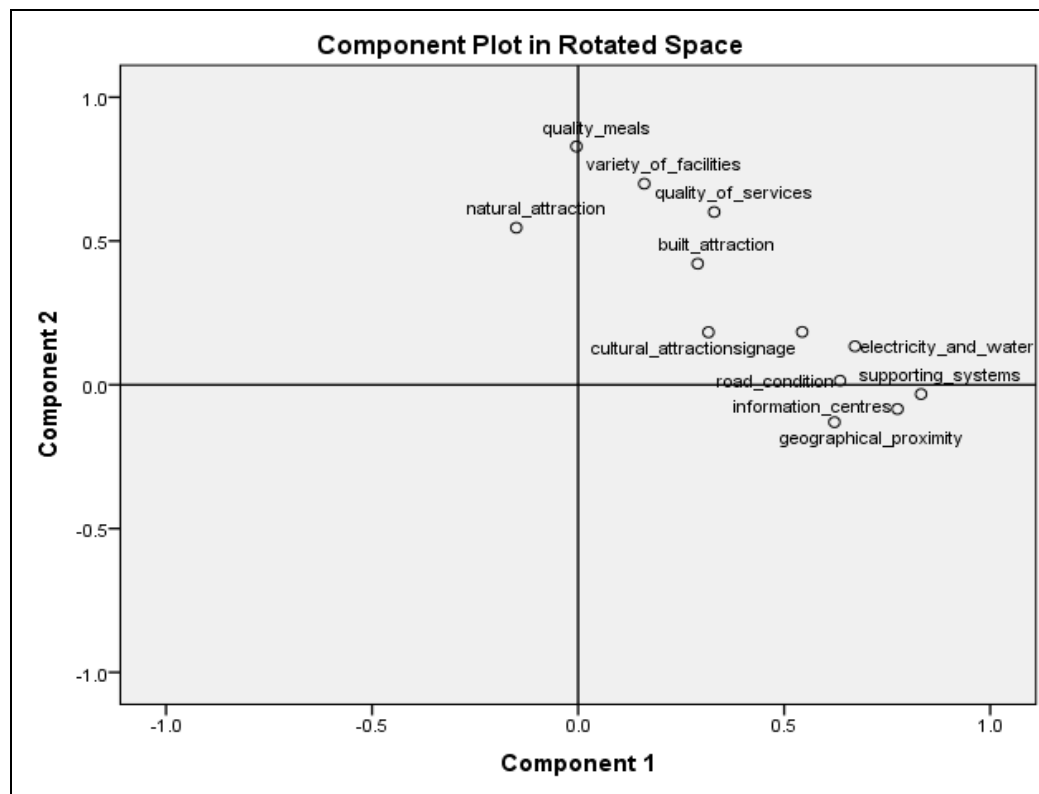


Figure 4.18: Principal Component Analysis using 2 components

4.9.3 Data transformation

To produce composite values in each category, data transformation was accomplished by retaining factors in each independent variable rotation matrices. Attractions, accessibility, accommodation, and amenities destination aspects were indexed according to loading, with components with higher loading being picked in each category. Quality of meals was dropped irrespective of achieving > 0.5 loading as was referred as a crossbred. The concept of data transformation is critical for increasing factor dependability and achieving normality in preparation for future data analysis.

4.9.4 Reliability analysis for the study variables

The data was initially subjected to reliability test. Having good test re-test reliability signifies the internal validity of a test and ensures that the measurements obtained in one sitting are both representative and stable over time. Examination revealed that the parameters were very in line with the findings of this research. Cronbach's alpha value was 0.74 (73.8%), which was greater than the permissible minimum of 0.7. (70 percent). A Cronbach' alpha co-efficient of 0.70 or above according to Bolarinwa (2015) is sufficient to prove dependability. The study found that the research techniques were credible, and that more investigation might be done as a result of the findings.

Table 4.5: Reliability analysis of each variable

Item	Cronbach's alpha	No. of Items
Tourism sustainability	0.7480	12
Attractions	0.7090	3
Accessibility	0.7110	2
Accommodation	0.7230	3
Amenities	0.7970	3
Composite	0.7380	24

Source: Survey data, 2021

4.9.5 Testing assumptions of multiple regression

The regression model adopted in this study is based on the following assumptions; normality of residuals, linearity of residuals, auto correlation and multicollinearity of residuals as well as homoscedasticity.

4.9.6 Linearity assumption test

A scatter plot was used to test the hypothesis. The assumption is accurate if the scatter plot does not follow a curved pattern. In this study the scatter plot did not follow a curvilinear pattern implying that the linearity of residuals assumption was upheld.

4.9.7 Normality assumption test

The Kolmogorov-Smirnov and Shapiro-Wilk statistical methods were used to examine the assumption. A p-value larger than 0.05, according to Lind *et al.* (2012), indicates that the residuals are regularly distributed. In this study the residuals were normally distributed as the p-value was greater than 0.05 as shown in Table 4.6.

Table 4.6: Tests of normality assumption

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Sustainability	.567	172	.679	.978	172	.593

a. Lilliefors Significance Correction

4.9.8 Multicollinearity assumption test

Multicollinearity was carried to test if dependent factors were highly correlated. Variance Inflation Factors was used with a threshold of 3.00. Attractions had the lowest VIF of 1.09, while Amenities had the highest (1.23) with none of the factor having not more than the threshold. This indicated in absence of multicollinearity thus a perfect linear relationship between independent variables (Table 4.7).

Table 4.7: Multicollinearity assumption test

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	Beta	Std. Error	Beta			Tolerance	VIF
(Constant)	19.21	3.37		5.70	0.00		
Attractions	0.51	0.25	0.12	2.03	0.04	0.92	1.09
Accessibility	0.75	0.25	0.20	3.05	0.00	0.77	1.30
Accommodation	0.73	0.20	0.24	3.66	0.00	0.79	1.27
Amenities	1.23	0.23	0.37	5.42	0.00	0.71	1.42

4.9.9 Autocorrelation assumption test

Durbin-Watson's d test was used to test autocorrelation. The model summary indicated in absence of autocorrelation ($d=1.71$, $df=4$, $p<0.0001$).

4.9.10 Homoscedasticity assumption test

It is called homoscedastic when the variance in the regression is consistent for both small and large values of the dependent variable's projected value (Kothari, 2004).

The scatter plot was employed to put the premise to the test. If the residuals do not fan out in a triangle pattern, the assumption of homoscedasticity is fulfilled. The assumption was confirmed since the residuals did not fan out in a triangle pattern, as seen in Figure 4.2:

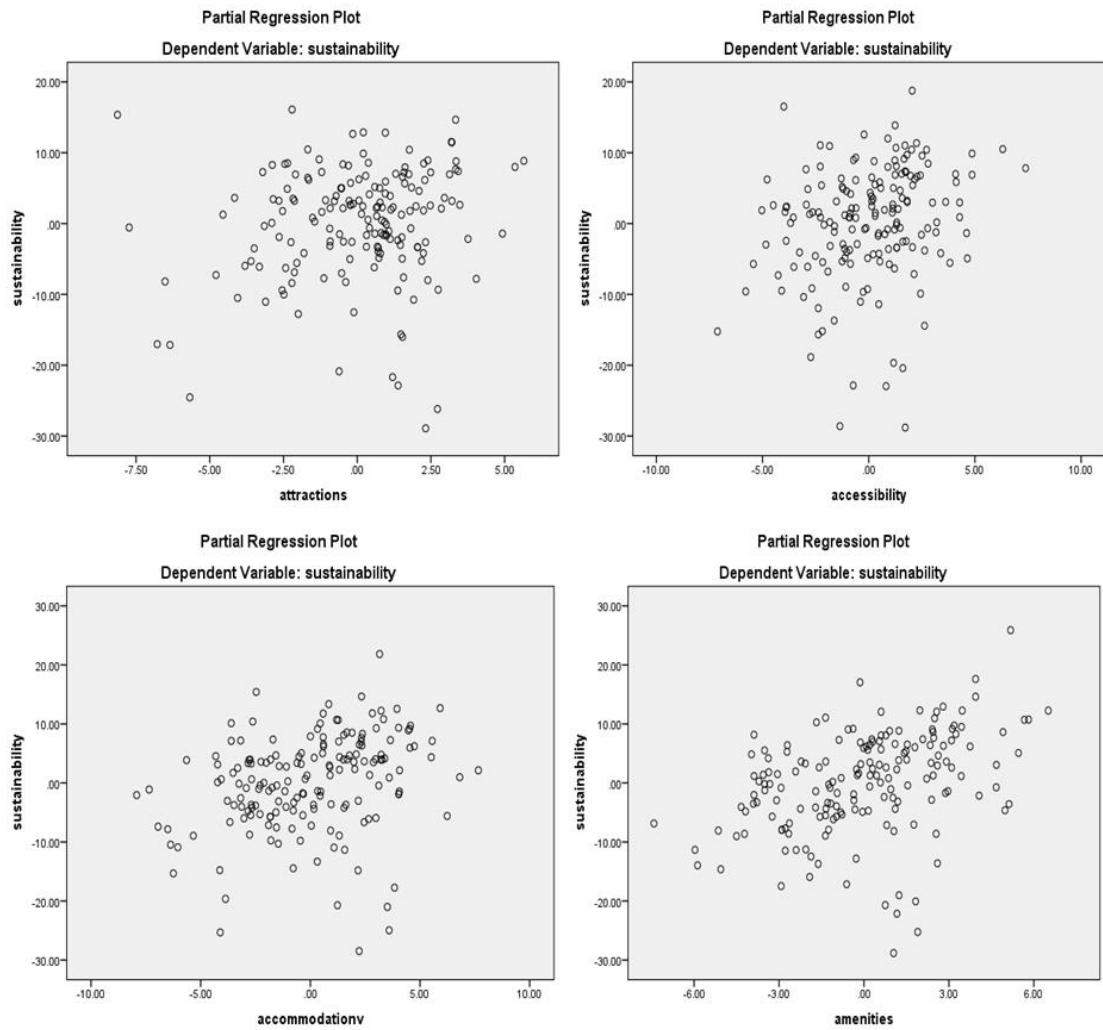


Figure 4.19: Homoscedasticity assumption test

4.10 Inferential statistics

In the study, Pearson's rank correlation coefficient as well as analysis of linear regression were employed for inferential analysis.

4.10.1 Correlation analysis

A correlation analysis of the variables under investigation was carried out to see whether there was any significant relationship between the dependent and independent variables (Asmelash & Kumar, 2019b). Tourism sustainability was shown to be connected with attractiveness ($r=0.2860$, $p<0.0001$), accessibility ($r=0.4600$, $p<0.0001$), lodging ($r=0.4780$, $p<0.0001$), and amenities ($r=0.5800$, $p<0.0001$). As shown in Table 4, attractiveness associated with accessibility ($r=0.2450$, $p<0.0001$), accommodation ($r=0.2100$, $p<0.0001$), and amenities ($r=0.1810$, $p=0.0090$) for individual dependent variables (factors). 4. Accommodation ($r=0.2900$, $p<0.0001$) and amenities ($r=0.4410$, $p<0.0001$) were associated to accessibility. Accommodation was shown to be connected to amenities ($r=0.4310$, $p<0.0001$). The study findings are similar to those of Balakrishnan *et al.* (2011) that attractions, accommodation, amenities, accessibility as well as sustainability are all correlated positively as illustrated in Table 4.8.

Table 4.8: Correlation analysis results

	Sustainability	Attractions	Accessibility	Accommodation	Amenities
sustainability					
Attractions	0.2860 (0.0000)				
Accessibility	0.4600 (0.0000)	0.2450 (0.0010)			
Accommodation	0.4780 (0.0000)	0.2100 (0.0030)	0.2900 (0.0000)		
Amenities	0.5800 (0.0000)	0.1810 (0.0090)	0.4410 (0.0000)	0.4310 (0.0000)	.

The numbers in bracket represent the p value

4.10.2 Multiple regression analysis

Multiple regression analysis was used to identify significant predictors of tourism sustainability at 5% level of significance. The results for the regression model summary are summarized in Table 4.9.

Table 4.9: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.6730 ^a	0.4530	0.4400	7.97

a. Predictors: (Constant), amenities, attractions, accommodation, accessibility

The modified R-square value of 0.4400 in the Table above implies that the model explains 44.0 percent of tourist sustainability from the predictor variables (i.e. amenities, attractions, accommodation, and accessibility).

4.10.3 Analysis of variance

To compare the means of tourist sustainability and its predictor factors, an analysis of variance (ANOVA) was used (Table 4.10). $F_{0.05(4, 167)} = 34.62$, $p < 0.0001$ for regression analysis model. Regression coefficient analysis was used to obtain the beta, which shows how much each independent variable impacts the dependent variable. Regression coefficients results indicated that all independent variables; attractions ($\beta = 0.5130$, $p < 0.0010$), accessibility ($\beta = 0.7520$, $p = 0.0440$), accommodation ($\beta = 0.7320$, $p < 0.0001$), and amenities ($\beta = 0.2280$, $p < 0.0001$) had a positive and significant influence on tourism sustainability with a final model as;

$$\text{Tourism Sustainability} = 19.21 + 0.51 * \text{attractions} + 0.75 * \text{accessibility} + 0.73 * \text{accommodation} + 0.23 * \text{amenities}$$

Table 4.10: Analysis of variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8817.86	4	2204.46	34.619	.000 ^b
	Residual	10634.25	167	63.67		
	Total	19452.11	171			

a. *Dependent Variable: sustainability*

b. *Predictors: (Constant), amenities, attractions, accommodation, accessibility*

The study findings are consistent with those of Andreani *et al.* (2017), who discovered that accommodation had a favorable and significant impact on tourist sustainability. Amenities had a positive and significant influence on tourism sustainability of ($\beta = 0.228$, $p < 0.05$). This means that a one-unit increase in facilities boosts tourist sustainability by 0.2. The study findings are consistent with those of Li *et al.* (2021), who discovered that facilities had a favorable and significant impact on tourist sustainability.

4.10.4 Hypothesis testing

Four hypotheses led the research, which were tested at a predetermined threshold of 0.05. Hypothesis 1(H01) anticipated association absence between tourism attractiveness and tourism sustainability in selected sites of Nandi County, Kenya, as summarized in Table 4.10. The findings indicate a significant correlation between tourism attraction and tourism sustainability ($p < 0.05$), rejecting the null hypothesis. As a result, it was discovered that tourism attractiveness has a strong link to tourism sustainability. The findings of the study are comparable to those of Pantano *et al.* (2017), who found a link between tourism attraction and tourism sustainability.

Table 4.11: Summary of variables significance

	Hypotheses	Co-efficient Result	p-value	Interpretation
H0 ₁	There is no significant relationship between tourism attraction and tourism sustainability in selected sites of Nandi County, Kenya.	0.51	0.0440	Reject H ₀
H0 ₂	There is no significant relationship between Accessibility and tourism sustainability in selected sites of Nandi County, Kenya.	0.75	0.0030	Reject H ₀
H0 ₃	There is no significant relationship between Accommodation facilities and tourism sustainability in selected sites of Nandi County, Kenya.	0.73	0.0000	Reject H ₀
H0 ₄	There is no significant relationship between Amenities and tourism sustainability in selected sites of Nandi County, Kenya.	0.23	0.0000	Reject H ₀

In chosen regions of Nandi County, Kenya, Hypothesis 2 (H₀₂) anticipated that there is no significant association between accessibility and tourist sustainability. The findings indicate a significant link between accessibility and tourism sustainability (p0.05), rejecting the null hypothesis and adopting the alternative hypothesis of a significant relationship between accessibility and tourism sustainability in selected sites of Nandi County, Kenya. It was therefore noted that, accessibility has a significant relationship with tourism sustainability. The study findings are in tandem with that of Swarbrooke (2012), that accessibility has a significant relationship with tourism sustainability.

In chosen regions of Nandi County, Kenya, Hypothesis 3 (H₀₃) anticipated that there is no significant association between accommodation facilities and tourist sustainability. Table 4.10 demonstrates a significant relationship between Accommodation facilities and tourism sustainability (p0.05), rejecting the null

hypothesis and failing to reject the alternative hypothesis. As a result, it was discovered that lodging facilities had a considerable impact on tourist sustainability. The findings of the study correspond with those of Chin *et al.* (2018), who found that accommodation has a major impact on tourist sustainability.

In chosen regions of Nandi County, Kenya, Hypothesis 4 (H04) anticipated that there is no significant association between amenities and tourist sustainability. The results show that Amenities and tourist sustainability have a significant association ($p < 0.05$), rejecting the null hypothesis. As a result, it was discovered that Amenities had a strong association with tourist sustainability. The study's findings are consistent with those of Boniface *et al.* (2020), who discovered that Amenities had a substantial association with tourist sustainability.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, conclusion as well as both policy recommendations and suggestions for further research.

5.2 Summary of findings

This section presents the findings of the study based on the objectives of the study.

5.2.1 Influence of tourism attractions on tourism sustainability

The study established those cultural attractions are valuable to tourists visit in Nandi County. The study results revealed that natural attractions are valuable to tourists visit in Nandi County. Built attractions were also found to be valuable to tourists visit in Nandi County. Tourism attractions variables revealed that tourism attractions have an influence on the tourism sustainability in selected sites of Nandi County. Correlation results revealed that Attractions have a significantly fairly strong positive relationship with tourism sustainability. Regression results discovered that attractions had a +ve and significant influence on tourism sustainability.

5.2.2 Influence of accessibility on tourism sustainability

The study established that signages are valuable to tourists visit in Nandi County. Geographical proximity is valuable to tourists visit in Nandi County while roads conditions are valuable to tourists visit in Nandi County. Accessibility variables revealed that accessibility has an influence on the tourism sustainability in selected sites of Nandi County. Correlation results revealed that Accessibility was found to

have a significantly fairly strong positive relationship with tourism sustainability. Regression results revealed that Accessibility had a +ve and significant influence on tourism sustainability.

5.2.3 Influence of accommodation facilities on tourism sustainability

The study established that Accommodation facilities were not valuable to tourists visit in Nandi County. Quality of services is valuable to their visit in Nandi County. The quality of meals in hotels or restaurants was valuable to tourists visit in Nandi County. Accommodation facilities variables revealed that Accommodation facilities have an influence on the tourism sustainability in selected sites of Nandi County. Correlation results revealed that Accommodation facilities had a significantly fairly strong positive relationship with tourism sustainability. Regression results revealed that Accommodation facilities had a +ve and significant influence on tourism sustainability.

5.2.4 Influence of amenities on tourism sustainability

The study found out that information centres are valuable to tourists visit in Nandi County. Supporting systems were also valuable to tourists visit in Nandi County. Electricity and water supply was also found to be valuable to tourists visit in Nandi County. Amenities variables revealed that Amenities have an influence on the tourism sustainability in selected sites of Nandi County. Correlation results revealed that Amenities had a significantly fairly strong positive relationship with tourism sustainability. Regression results revealed that Amenities had a +ve and significant influence on tourism sustainability.

5.3 Conclusions

Attractions have a significant influence on tourism sustainability. The cultural attractions, natural and built attractions were found to be valuable for tourists in Nandi County

Furthermore, Accessibility has a significant influence on tourism sustainability. Geographical proximity, the condition of roads, signage and geographical proximity were found to be valuable to visitor in Nandi County.

Furthermore, accommodation facilities have a considerable impact on tourist sustainability. Tourists valued the quality of services and meals in provided but were not satisfied with accommodation facilities in Nandi County.

Finally, Amenities have a significant influence on tourism sustainability. Information centres were noted as valuable to tourists visit in addition, to supporting systems. The study concluded that both electricity and water supply are valuable to tourists visit in Nandi County.

5.4 Recommendations

In light of the study's results and conclusion, the following suggestions are offered. On Attraction, the study recommended that there is need for more support for heritage conservation. On Accessibility, there is need for proper signage in order to enhance easy accessibility to tourism destinations. On Accommodation, more modern hotels should be built in the county. On Amenities, more information centers and more so, on digital platforms to be available and give more information to potential tourists should be available to facilitate easy access to information concerning various tourists' destinations in the county. The research study recommends that a further

study on the same research topic should be carried out in Elgeyo Marakwet County and other tourism destinations in Kenya. It would be interesting to find out whether similar findings will be found in other counties in Kenya. Further studies on destination dimensions and tourism sustainability should consider other determinants of tourism sustainability besides destination dimensions.

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APPENDICES

Appendix I: Visitors' Questionnaire

Dear respondent,

I am a University of Eldoret student pursuing a master's degree in tourist management. I am carrying out a research study on the *“Influence of destination dimensions on tourism sustainability in selected sites of Nandi County, Kenya.”*

Any information you provide will be used solely for academic purposes and will be treated with strict secrecy. Your involvement and assistance would be much appreciated.

Thank you in advance

Jemimah J. Talam

SECTION A: RESPONDENT'S GENERAL INFORMATION.

Please tick where suitable

1. Gender (a) Female (b) Male
2. Age: 18- 20 years 21-30 years 31 - 40 years above 40 years
3. Education qualification? Primary Secondary Tertiary Graduate Postgraduate Others
4. What is your occupation? Please tick where appropriate
 1. Student 2. Employed 3. Self-employed 4. Others
5. Nationality: 1 Kenyan 2 German 3 Indian 4 USA 5 Others

6. Please tick the destinations you have visited in Nandi county; Diguna falls []
 Kaptumo Africa native court [] Koitalel Samoei museum [] Ngabunat caves[]
 Eden spring guest house [] Chepkiit falls []

7. Which of the destinations do you prefer most?

- a) Diguna falls []
 b) Kaptumo Africa native court []
 c) Koitalel Samoei museum []
 d) Ngabunat caves []
 e) Eden spring guest house []
 f) Chepkiit falls []

SECTION B: DESTINATION DIMENSIONS

8. While choosing Nandi County, how valuable were the following attributes or dimensions to your visit? Please rate your perceptions by indicating your position on the 5-point scale. **1 = Not very valuable 2 = Not valuable, 3 = Neutral, 4 = Valuable, 5 = Very valuable.**

✓ Tick as appropriate

	Destination dimensions	1	2	3	4	5
B	Attractions					
B ₁	cultural attractions					
B ₂	natural attractions					
B ₃	built attractions					
	Accessibility	1	2	3	4	5
C ₁	signages					

C2	geographical proximity					
C3	road conditions					
	Accommodation	1	2	3	4	5
D1	Accommodation facilities					
D2	Provided services					
D3	Quality of meals in hotels/restaurants					
	Amenities	1	2	3	4	5
E1	Information centres					
E2	Supporting systems					
E3	Electricity and water supply					

9. Indicate the extent to which you were satisfied with the following dimensions on sustainability in Nandi County. Please rate your experience by indicating your position on the 5-point scale. **1 = not very satisfied, 2 = not satisfied, 3 = neutral 4 =satisfied 5 = very satisfied.**

✓ Tick as appropriate

F	Satisfaction	1	2	3	4	5
	Attractions					
F ₁	Natural attractions					
F ₂	Cultural attractions					
F ₃	Built attractions					

	Accessibility	1	2	3	4	5
G1	signages					
G2	Geographical proximity					
G3	Road condition					
	Accommodation	1	2	3	4	5
H1	Accommodation facilities					
H2	Quality of service					
H3	Quality of meals					
	Amenities	1	2	3	4	5
I1	Tourists information centres					
I2	Supporting systems					
I3	Electricity & water supply					

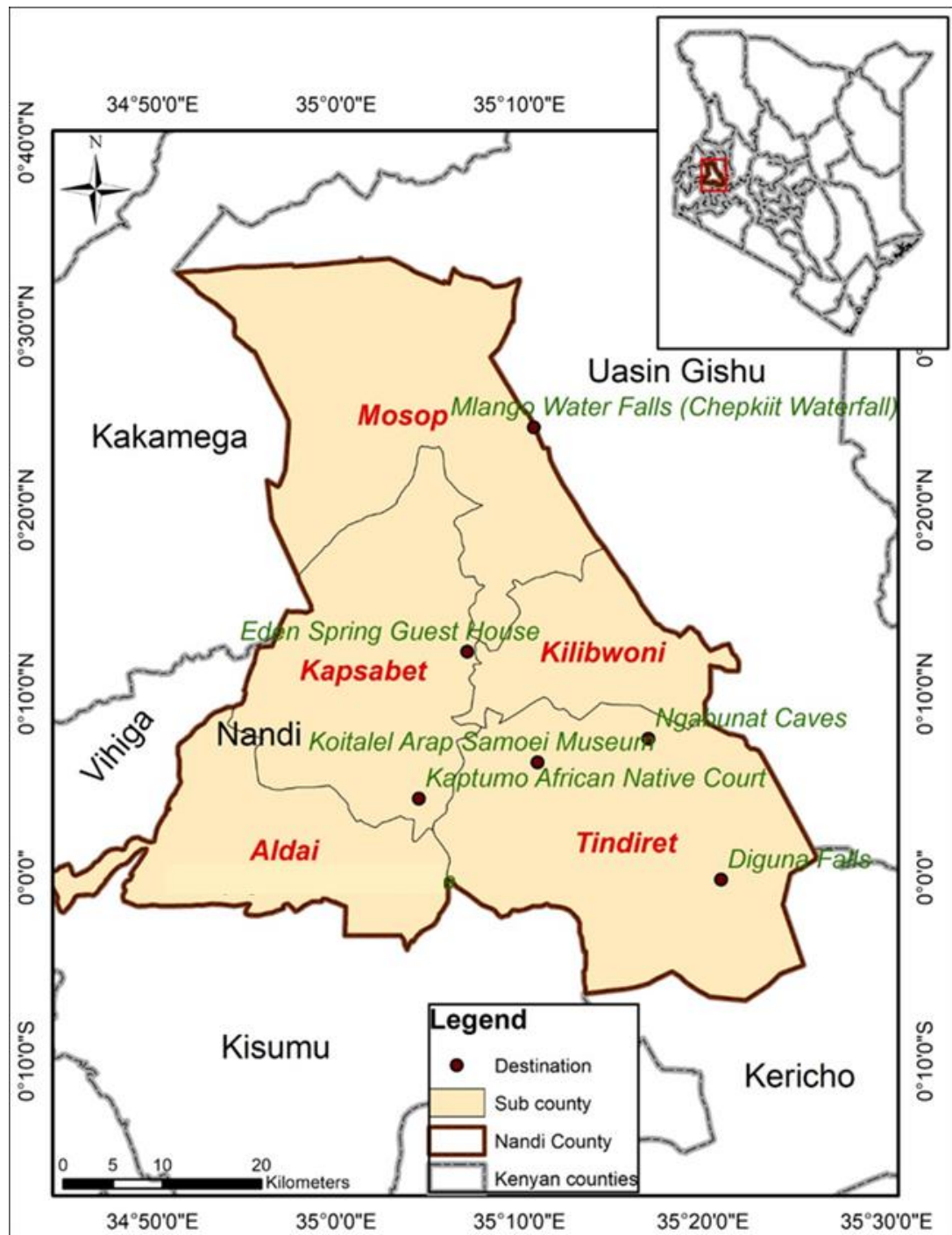
10. Please tick where you feel appropriate about your experience in Nandi County on a 4-point scale. **1= definitely not 2= not sure 3= neutral 4= definitely yes 5=most definitely**

		1	2	3	4	5
	Would you think of coming back to these sites in Nandi County?					
	Are you willing to recommend anyone to visit the destinations in Nandi County?					
	Are you satisfied with general services in destinations in Nandi County?					

Appendix II: Interview Schedule for Facility Managers

1. For how long have you been the facility manager?
2. By the reference of age brackets; Age: 18- 20 years [] 21-30 years [] 31 - 40 years [] above 40 years[] who are your most visited clients?
3. Do you have a repetitive visitor (s) to your facility?
4. How did the first-time visitors find about your facility?
5. What are the commonly used modes of transport by visitors who come to the facility?
6. Are there enough accommodation facilities to cater for the needs of tourists in the area?
7. In your opinion, what pulls /attracts your visitors to come to this destination?
8. Do you think most of your visitors are well informed with tourists' destinations in Nandi County?

Appendix III: Map of Nandi County showing selected tourist attraction sites



Appendix V: Research Permit from Nandi County

COUNTY GOVERNMENT OF NANDI

Tel: 05352552355
E-mail: tourism@nandi.go.ke



P.O BOX 802-30300
KAPSABET

DEPARTMENT OF TOURISM, CULTURE AND SOCIAL WELFARE

Date: 1st December, 2021

TO WHOM IT MAY CONCERN.

RE: PERMISSION TO CONDUCT RESEARCH

Ms. Jemimah Jepchumba Talam of University of Eldoret has been licensed by the National Commissioner for Science, Technology and Innovations (NCSTI) to conduct research on influence of destination dimensions on tourism sustainability.

This is therefore to confirm that she has been granted access to selected areas of study i.e Mlango falls (Chepkiit waterfalls) in Chesumei sub-county, Eden springs guest house in Chesumei, Koitalel Samoei mousoleum in Nandi hills sub-county, Ng'abunat caves in Nandi hills, Kaptumo native courts in Aldai sub-county and Diguna falls in Tindiret sub-county for purposes of data collection during the research period of December 2021.

ISAAC SARGOI
DIRECTOR TOURISM AND CULTURE.



Appendix V: Similarity Report

Turnitin Originality Report

INFLUENCE OF DESTINATION DIMENSIONS ON TOURISM SUSTAINABILITY IN
SELECTED SITES OF NANDI COUNTY, KENYA by Jemimah Talam



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- 3 1% match (Internet from 13-Oct-2022)
<http://erepository.uoeld.ac.ke/bitstream/handle/123456789/730/DANIEL%20OTIENO%20POLO.pdf?isAllowed=y&sequence=1>
- 4 1% match (Internet from 03-Apr-2021)
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<https://ir.tum.ac.ke/bitstream/handle/123456789/14019/MBA%200978%202014%20MUSEMBI%20D%20M%20RESEARCH%20PROJECT.pdf?isAllowed=y&sequence=1>
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