TRIPLE BOTTOM LINE IMPACTS OF CRUISE TOURISM ON COASTAL DESTINATION DIVERSIFICATION IN MOMBASA COUNTY

BY

KEVIN MUTIE NYAMAI

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DECLARATION

Declaration by the Candidate

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Signed: _____ Date_____:

Kevin Mutie Nyamai

SBE/PGT/09/08

Declaration by the Supervisor

This thesis has been submitted with our approval as university supervisors.

Signed: _____ Date_____:

Prof. Hellen Ipara

Department of Wildlife Management

School of Environmental Sciences and Natural Resources Management

University of Eldoret

Signed: _____ Date_____:

Dr. Wendy Rop

Department of Tourism and Tour Operations Management

School of Tourism, Hospitality & Events Management

Moi University

DEDICATION

I dedicate this thesis to my dear wife Hawa Hemed Mbondomwike, lovely daughters Lexy, Wellah, Briannah and Braulio, and close relatives for the great support and understanding they have shown ever since I was an undergraduate student to date. I promise to walk with you and care for you as you enjoy the fruits of your support and inspiration that I have acquired from my academic success. God bless and shade light in all my ways as I strive to pursue higher levels of education in future. For the sky is not the limit and one can go a little bit further with determination and trust in God always for '***God's time is the best***"

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ABSTRACT

Coastal destination diversification involves expanding tourism offerings beyond traditional beach activities to attract a wider range of visitors and reduce reliance on single-product tourism. This involved developing new attractions, activities and infrastructure that cater to diverse interests and demographics, helping destinations become more resilient to changes in demand and economic fluctuations. The cruise tourism industry in Mombasa county has evolved from small-scale, luxury adventures for the affluent to large scale, all-inclusive resort experiences. However, the economic contribution of cruise passengers' expenditure in destination ports has been lower compared to environmental and social impacts due to limited destination diversification. Hence, the purpose of this study was to determine the triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County. The specific objectives were to; establish to determine the influence of economic, environmental and social impacts of cruise tourism on coastal destination diversification. The study was anchored on Sustainable Development Theory. The study adopted an explanatory and descriptive research designs. The target population was 4569 respondents comprising of 3340 local community, 430 tour operators, 39 tourism officers and 760 tourists. A sample size of 489 respondents used. Stratified simple random sampling was used to select 357 community members with sub-county being the stratum. Purposive sampling was used to select 43 tour operators, 13 tourist officers and 76 tourists. Questionnaires and interview guide were used to collect data that was analysed using multiple linear regression and thematic analysis respectively. The results indicated that 67.3% (R^2 =0.673) of the variation in coastal tourism destination diversification was explained by triple bottom line impact of cruise tourism. The β coefficients indicated that there was a positive significant influence of economic (β_1=0.337, p=0.001), environmental (β_2=0.002, p=0.001) as well as social impact (β_3=0.375, p=0.001) and coastal tourism destination diversification in Mombasa County. The study concluded that economic, environmental and social impacts of cruise tourism had a significant influence on coastal tourism destination diversification. The coastal businesses have benefited from cruise passenger. The cruise passenger propensity to visit attractions depend on tour guides, marketing brochures and access to public and hired transportation to travel. This study recommends collaboration among the local businesses to promote attractive onshore activities. The county government of Mombasa and Ministry of Tourism and Wildlife should develop robust policy guidelines and toolkits for measuring and tracking the economic, environmental, and social impacts of cruise tourism on the local community. This data will drive better decision-making based on triple bottom line approach and help align cruise tourism strategies with the needs of local communities as a result of destination diversification.

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OPERATIONAL DEFINITION OF TERMS

Coastal destination diversification refers to the process of expanding a destination's tourism offerings beyond traditional beach attractions to include cultural, ecological, heritage-based, and community-driven products.

Economic impact refers to the financial benefits that cruise tourism brings to local communities, businesses, and governments, including employment and infrastructure development.

Environmental impact concerns the effect of cruise tourism on natural resources and ecosystems, including issues like pollution, habitat degradation, and sustainability efforts.

Social impact encompasses the cultural, community, and demographic changes that result from cruise tourism, including quality of life, cultural preservation, and social equity.

ACRONYMS/ABBREVIATIONS

AfDB	African Development Bank
AU	African Union
AUDA	African Union Development Agency
CLIA	Cruise Lines International Association
DEFRA	Department for Environment, Food and Rural Affairs
EAC	East African Community
GTA	Ghana Tourism Authority
IBAR	Inter-African Bureau for Animal Resources.
KPA	Kenya Ports Authority
OECD	Organisation for Economic Co-operation and Development.
SPSS	Statistical Package for the Social Science
UK	United Kingdom
UNDP	United Nations Development Programme.
USA	United States of America
WCED	World Commission on Environment and Development
WTTC	World Travel and Tourism Council

CHAPTER ONE

INTRODUCTION

1.1 Overview

This chapter presents the background of the study, statement of the problem, objectives, research hypotheses, significance and scope of the study.

1.2 Background of the Study

Destinations that tourism at the centre of their economy have long been investigated. Examples include Wang et al (2021) "tourism as an economic driver for a region or as a contributor to local residents' happiness", and Ivanka et al (2023) bibliometric review of articles destination review articles on the evolution of destination studies from 2000 to 2020 and concluded that some topics in these studies remain understudied and that valuable topics, e.g., sustainable or smart destinations, deserve more attention.

Relying predominantly on a single type of tourism, often termed 'tourism monoculture'—is widely recognised as unsustainable, especially when considering the environmental and social risks associated with cruise tourism as opposed to the economic reliance of certain communities. This reliance highlights the challenges of effectively regulating and managing environmental hazards, as economic dependencies and power imbalances within the cruise supply chain tend to undermine proactive sustainability measures. When a region focuses too heavily on a single tourism sector or segment, it creates an 'economic monoculture' that is vulnerable to issues such as seasonality, financial downturns, and corporate exploitation, making it a precarious and crisis-prone approach (James et al., 2020; Renaud, 2020).

A well-diversified tourism portfolio enhances the ability to manage capacity risks (Jeevan et al., 2019; Jordan et al., 2020) and directs investment more effectively (Pulina et al., 2013). Although the rationale for fostering economic diversity and spreading tourism activity throughout the year is clear—especially in light of the pandemic's impact, the persistence of tourism monocultures suggests that achieving this diversity remains challenging in practice. The structural features of the tourism sector, such as international supply chains, the dominance of small and medium-sized enterprises, and concentrated market shares, make it vulnerable to corruption. This dynamic can both mirror and disrupt ongoing efforts toward economic development and sustainability (Papathanassis, 2019b).

From 1990 through 2020, cruise tourism experienced a notable surge, with global passenger numbers increasing by an average of 6.63% annually (Carić and Mackelworth, 2014; Cruise Market Watch, 2021). By 2018, the worldwide capacity of ocean cruise ships had surpassed 530,000 passengers (Cruise Lines International Association, 2018). Between 2012 and 2018, the industry saw a 48% rise in the number of operational cruise ships, reaching over 300 vessels by 2018, while passenger capacity doubled to 500,000 during the same period (Caric et al., 2019).

Cruise tourism plays a significant role in driving economic expansion. In 2018, the global cruise industry was valued at nearly $150 billion (Giese, 2020). However, the COVID-19 pandemic dealt a severe blow to the cruise sector, halting travel worldwide and deeply impacting the broader tourism industry (Statista, 2020a). The sector's impressive growth over previous decades can be attributed to factors like increasing ship capacities, enhanced port infrastructure, technological advancements, and the development of both onboard and shore-based activities tailored to evolving

traveler preferences (Cruise Market Watch, 2021; MedCruise, 2017; UNEP, MAP, Plan Bleu, 2016).

The diversity of cruise offerings has expanded considerably. At one end, small-scale adventure or luxury cruises now reach some of the world's most remote and sensitive marine regions (Lamers et al., 2015). At the other, enormous cruise ships—comparable to floating cities—ply well-established routes in regions such as the Caribbean, Mediterranean, and Northern Europe (Lamers et al., 2015). In recent years, these vessels have grown significantly, with about 90% now able to host more than 1,250 guests, and the largest "mega-cruisers" accommodating upwards of 6,000 passengers in addition to 2,000 crew members (Cruise Market Watch, 2021; Seatrade Communications, 2012). These ships function as self-contained resorts, providing accommodations, dining, medical services, transportation, leisure activities, and entertainment—all onboard (Carić and Mackelworth, 2014).

Cruise tourism destinations span a remarkable range, from bustling metropolises such as Barcelona and Venice to small, remote rural towns, including many found in the Arctic. Each faces its own set of sustainability challenges. Moreover, the effects of cruise tourism are not limited to the port cities themselves; inland communities that serve as day-trip destinations for cruise passengers are also impacted (Esteve-Perez & Garcia-Sanchez, 2015). While existing research offers rich and detailed insights into various aspects of cruise destinations, it often lacks a unified perspective that brings together these diverse viewpoints for a more comprehensive understanding (Ivanka et al., 2023).

Coastal destination diversification refers to the strategic development and promotion of multiple, varied coastal areas within a region or country to reduce overdependence

on a few popular tourist hotspots. It involves spreading tourism activity more evenly across the coastline by identifying and upgrading underutilized or emerging coastal destinations, thereby enhancing tourism sustainability, economic resilience, and socio-cultural inclusion (UNWTO, 2022; Mlozi & Mgonja, 2023).

Diversification can include the expansion of cruise ports, eco-tourism hubs, cultural heritage sites, marine parks, and beach resorts across multiple coastal locations. This concept is particularly important in managing the challenges of over tourism, economic vulnerability, and environmental degradation faced by traditional coastal tourism hubs. By diversifying destinations, governments and tourism stakeholders aim to decongest crowded areas, promote regional equity in tourism investment, and enhance visitor experiences by offering a variety of attractions, landscapes, and cultures (Gössling & Hall, 2021).

In developed countries, diversification has taken the form of developing secondary cruise ports or eco-tourism areas to reduce pressure on iconic cities. For instance, in Spain, cruise tourism is being redirected from overburdened Barcelona to smaller ports like Valencia and Malaga. Similarly, in Italy, tourism flows are being spread from Venice to nearby destinations such as Ravenna and Trieste to manage over tourism and preserve heritage (Garay & Cànoves, 2020).

In the United States, coastal tourism is dominated by areas such as Miami, Los Angeles, and New York City. However, there has been a deliberate move to promote lesser-known but culturally rich and ecologically diverse coastal destinations. For example, the state of Maine has emerged as a niche cruise and eco-tourism destination, offering small ports like Bar Harbor and Portland that attract visitors interested in nature, seafood, and quiet exploration (CLIA, 2023). The Pacific

Northwest, including Seattle and Alaska's Inside Passage, has expanded cruise and land-based tourism into indigenous coastal communities and wilderness areas, often through partnerships with tribal organizations and environmental NGOs (Walker, 2021).

In Canada, cities like Vancouver and Halifax have long been central to coastal tourism. However, provinces such as Newfoundland and Labrador, Prince Edward Island, and parts of Nova Scotia are now being promoted as new cruise and cultural destinations. These regions offer maritime history, rugged coastlines, and unique folk cultures that align with global trends in experiential and responsible travel (Destination Canada, 2022).

In Spain, coastal tourism has traditionally centered around destinations such as Barcelona, Ibiza, and Mallorca, which have experienced significant over tourism, especially from cruise arrivals and mass holidaymakers. In response, Spanish tourism authorities have promoted destination diversification by investing in less-visited coastal areas like Valencia, Alicante, and Cadiz. These secondary destinations are being improved through infrastructure upgrades, cultural festivals, and promotion of eco-tourism to divert tourism flows and reduce strain on hotspots (Garay & Cànoves, 2020).

In Italy, the iconic city of Venice has struggled with the negative impacts of cruise tourism, including environmental degradation and crowding. This led to the ban on large cruise ships from entering the Venice lagoon in 2021. Authorities have since redirected cruise traffic to alternative ports like Ravenna, Trieste, and Marghera, while promoting new coastal areas in regions such as Puglia and Calabria as cultural and gastronomic destinations (UNEP, 2022).

Norway, known for its pristine fjords, has embraced diversification through a sustainable lens. While major cruise stops like Geiranger and Flåm remain popular, authorities are encouraging the development of lesser-known ports such as Ålesund and Nordfjordeid, supported by investments in green port infrastructure and emissions regulations (Norwegian Ministry of Climate and Environment, 2022).

Australia, with its extensive coastline, has developed numerous coastal hubs beyond the iconic Sydney Harbour. The Great Ocean Road, Broome, Cairns, and Hobart have been positioned as alternative tourism destinations that promote marine conservation, Aboriginal cultural experiences, and small-scale cruising. Tourism Australia supports this diversification through its "Restart and Recover Strategy," which includes infrastructure funding, regional promotion, and eco-certification incentives (Tourism Australia, 2023).

In Japan, coastal tourism traditionally focused on major port cities like Tokyo and Yokohama. However, post-COVID tourism policies have encouraged cruise and domestic travel to lesser-known coastal prefectures such as Shizuoka, Okinawa, and Kagoshima, where hot springs, volcanic coastlines, and traditional fishing villages provide authentic experiences (Japan Tourism Agency, 2022). These areas are supported through local revitalization projects and cultural preservation efforts.

Coastal destination diversification in developed countries involves the strategic expansion of tourism to a broader range of coastal locations beyond traditional, high-volume destinations. The objective is to reduce the pressures of over tourism, enhance economic inclusivity, protect sensitive ecosystems, and respond to changing tourist preferences, such as demand for sustainable, less-crowded, and authentic experiences (Gössling & Hall, 2021). In the context of developed nations, diversification is a

proactive approach to ensuring tourism resilience, dispersing economic benefits, and achieving sustainability targets under frameworks like the UN Sustainable Development Goals.

Coastal destination diversification in African countries refers to the deliberate expansion and promotion of multiple, lesser-known or underdeveloped coastal areas for tourism to reduce dependence on a few dominant destinations, while ensuring sustainable development, community participation, and environmental conservation. The approach aims to distribute tourism benefits more equitably across coastal regions, reduce pressure on congested hubs, and build resilience in the face of climate change, global economic fluctuations, and over tourism (UNWTO, 2022; Mlozi & Mgonja, 2023).

Ghana has begun diversifying its coastal offerings beyond Cape Coast and Elmina by developing tourism in Ada Foah, Axim, and Keta. These areas combine beach tourism with cultural and historical significance, including forts and slave trade heritage sites. The Ghana Tourism Authority's "Beyond the Return" campaign aims to attract diaspora tourists while promoting alternative coastal sites (GTA, 2022).

Nigeria has started promoting destinations like Badagry, Lagos Island, and Calabar, which are rich in culture and colonial history, to complement its beach tourism. However, infrastructural limitations, security concerns, and poor destination branding continue to hinder large-scale diversification (Odularu, 2022). Senegal has taken steps to develop its southern coast, particularly the Casamance region, as an alternative to the capital Dakar. Investment in eco-tourism, river cruises, and local homestays is being encouraged to promote inclusive development and reduce regional disparities (UNDP, 2022).

In South Africa, coastal tourism is dominated by Cape Town and the Garden Route, but there are efforts to develop lesser-known destinations such as the Wild Coast, Port St. Johns, and Eastern Cape. These areas are rich in biodiversity, culture, and scenery but have lagged behind in tourism infrastructure. The Department of Tourism's Destination Development Programme encourages regional tourism growth by funding road access, signage, and eco-tourism lodges (South African Department of Tourism, 2022).

Mozambique, with its 2,500 km of largely untouched coastline, has immense potential for coastal tourism. While Maputo and Bazaruto Archipelago remain the main destinations, the government has identified areas such as Inhambane, Quirimbas Archipelago, and Pemba as priority zones for diversification. Challenges include weak infrastructure, limited air access, and investor hesitation, but partnerships with regional development banks and NGOs are helping bridge these gaps (World Bank, 2021).

In Tanzania, the government has actively worked to diversify beyond Zanzibar by developing coastal destinations such as Bagamoyo, Kilwa, and Pangani, which are rich in historical and cultural heritage. These areas are being positioned for niche tourism markets, particularly heritage and eco-tourism, to reduce pressure on Zanzibar while spreading economic benefits (Mlozi & Mgonja, 2023). The Tanzania National Tourism Policy (2020) also promotes the development of lesser-known areas through public-private partnerships, infrastructure investment, and promotion of sustainable community-based tourism. These emerging areas are being marketed as cultural and ecological destinations, targeting niche markets such as heritage tourism and sustainable marine excursions.

In Kenya, for example, efforts are underway to diversify beyond Mombasa county by developing coastal destinations such as Kilifi, Lamu, Malindi, and Shimoni. These areas are rich in Swahili heritage, marine biodiversity, and untouched beaches, yet remain underexploited in comparison to Mombasa. The Kenyan government, in collaboration with the Go Blue Initiative and County Governments, has prioritized infrastructural development, community training, and eco-tourism programs to promote lesser-known coastal sites (AUDA-NEPAD, 2023).

Coastal destination diversification also promotes economic inclusivity, allowing rural and marginalized coastal communities to participate in tourism value chains. This includes supporting local entrepreneurship in handicrafts, homestays, food services, and tour guiding—activities that align with the United Nations Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 14 (Life Below Water) (UNDP, 2022).

Sustainable cruise tourism is generally evaluated through its social, economic, and environmental effects (James et al., 2020). To fully grasp a tourist destination, it is important to see it as both a tangible and conceptual space where economic activity, social dynamics, and environmental factors intersect—collectively shaping the destination's unique identity. As a result, elements such as local culture, economic conditions, community life, and the natural environment are fundamentally interconnected within each destination (Saraniemi & Kylänen, 2011).

The global expansion of cruise tourism has significantly reshaped coastal cities, transforming them into vibrant tourism and trade hubs. This rapid development has intensified scrutiny over the multifaceted impacts of cruise tourism—beyond mere economic metrics. Scholars and policymakers now often assess these effects through

the Triple Bottom Line (TBL) framework, conceptualized by Elkington (1994), which emphasizes a balanced focus on three sustainability dimensions: economic prosperity, environmental stewardship, and social equity.

In this framework, economic impact encompasses revenues from port operations, tourism-related jobs, and small and medium enterprise (SME) growth. For instance, in Cartagena, Colombia, Brida, Pulina, and Riaño (2020) found that cruise tourism stimulated local employment and artisanal businesses, although seasonal fluctuations led to income instability. Similarly, Marques and Pinto (2021) in Lisbon discovered that cruise-generated revenue enabled investments in gastronomy and cultural tourism. In Durban, South Africa, Dube and Nhamo (2022) showed that cruise tourism supported township tourism initiatives, while in Dubai, Alrawadieh et al. (2022) reported economic gains reinvested into desert safari and retail circuits. Locally, Okello and Gitau (2023) revealed that cruise tourism in Mombasa has spurred job creation, SME growth, and marginal investments into heritage tourism.

The environmental impact of cruise tourism, however, presents significant sustainability concerns. Gabrielli, Cafiero, and Ricci (2021), in Venice, Italy, found that cruise ships contributed to water turbidity, sediment disruption, and air pollution—threatening lagoon ecosystems and diversification efforts. In Langkawi, Malaysia, Rahman, Zaki, and Hasan (2022) used GIS-based mapping to show how cruise anchoring led to oil spills and coral bleaching. In Chinese port cities, Sun, Zhang, and Ryan (2021) found that poor air quality and water pollution reduced tourists' willingness to engage in diversified inland ecotourism.

Similarly, in Florida, Gibson, Thapa, and Dahal (2020) demonstrated that air pollution from cruise emissions undermined support for new tourism projects like parks and

wellness retreats. In Istanbul, Turkey, Demirtaş and Aykan (2023) showed that cruise-related emissions and marine waste discouraged investment in waterfront redevelopment, eco-marinas, and cultural zones. These findings mirror environmental conditions in Mombasa, where Mwangi and Omollo (2019) reported that cruise activity has degraded coral reefs, mangrove ecosystems, and marine water quality—undermining marine-based tourism products.

The social impact of cruise tourism also warrants close attention. It includes changes in community well-being, resident attitudes, cultural authenticity, and infrastructure. In Cartagena, Colombia, Brida and Zapata (2020) found that cruise tourism led to noise pollution, crowding, and social tension, prompting advocacy for nature-based alternatives. In Santorini and Mykonos, Greece, Lekakou, Pallis, and Vaggelas (2020) identified local resentment and cultural loss, which resulted in diversification into agro-tourism and culinary tourism. In Lisbon, Silva and Fernandes (2021) noted that social empowerment was linked to increased resident support for tourism diversification, such as riverfront events and artisanal markets.

In Palermo, Italy, Mancuso and Romano (2023) reported that gentrification and commodification of culture led to a shift toward intangible heritage tourism. In Durban, Mthembu and Khumalo (2023) revealed that cruise tourism's unequal social benefits spurred efforts to develop inclusive township tourism. Similar social tensions are found in Mombasa. Mwangi and Muthoni (2023) found that while cruise tourism improved cultural exchange and infrastructure, it also contributed to negative behaviors like begging and a dilution of local traditions.

According to the Cruise Lines International Association (2022), over 31 million passengers sailed on cruise ships that year. In European cities like Barcelona, Venice,

Lisbon, and Port Miami, cruise tourism has driven major economic returns. Papathanassis and Beckmann (2020) demonstrated that cities strategically reinvesting cruise income in wellness, cultural festivals, and sports saw enhanced economic resilience. Marques and Pinto (2021) showed that Lisbon's economic diversification was supported by cruise profits funneled into gastronomy and music events. Yet, these benefits came with ecological costs. In Venice, Gabrielli et al. (2021) documented ecological degradation caused by cruise sediment disruption. Rahman et al. (2022) in Langkawi and Sun et al. (2021) in Xiamen and Hainan similarly found that cruise-related water pollution eroded tourist satisfaction and discouraged diversification.

From a social angle, Russo and Scarnato (2021) analyzed how cruise congestion triggered identity loss in Venice and Barcelona, prompting decentralization of tourism into artisan and community districts. Mancuso and Romano (2023) in Palermo linked gentrification with urban renewal through intangible heritage projects. Collectively, these global studies show that while cruise tourism drives economic opportunity, it simultaneously strains natural and social systems, thus requiring deliberate diversification strategies.

Globally, numerous studies have examined the TBL impact of cruise tourism on coastal destinations. For instance, Gabrielli, Cafiero, and Ricci (2021) conducted a qualitative case study in Venice, Italy, assessing cruise tourism's environmental toll on lagoon ecosystems. The study found that sediment disruption, marine pollution, and overcrowding hindered Venice's efforts to promote eco- and cultural tourism, which are critical to its diversification strategy. Similarly, in Port Miami, Florida, Gibson, Thapa, and Dahal (2020) used a mixed-methods design involving GIS spatial

analysis and resident surveys to evaluate cruise tourism's socio-environmental impact. They found that cruise emissions and overcrowding reduced community support for further development, prompting authorities to pursue cultural district expansion and urban greening projects.

In the Canary Islands, Santana-Fernández et al. (2022) applied Structural Equation Modeling to survey 210 tourism professionals and found that environmental degradation, including congestion and marine pollution, negatively affected visitor satisfaction, thereby limiting the destination's diversification into eco-tourism and wellness tourism. In New Zealand, Lück and Maher (2021) used a mixed-methods approach involving surveys and interviews in remote coastal areas, discovering that cruise revenues enabled investment in community-based tourism and eco-cultural products, enhancing diversification. Meanwhile, Russo and Scarnato (2021) conducted a comparative case study in Barcelona and Venice, where findings showed that social conflicts over cruise tourism—including rising housing costs and erosion of local identity—motivated policymakers to adopt artisan markets and decentralized tourism models as diversification strategies.

In Africa, coastal destinations are experiencing similar cruise growth. Africa is home to vast and diverse coastal landscapes—ranging from coral reefs and white sand beaches to mangrove forests and cultural heritage sites—yet tourism activity remains concentrated in select destinations such as Zanzibar (Tanzania), Mombasa (Kenya), Cape Town (South Africa), and Sharm El-Sheikh (Egypt). As a result, many smaller or rural coastal communities remain economically marginalized despite having significant tourism potential. Dube and Nhamo (2022) found that Durban utilized cruise profits to fund coastal cleanups and township tourism projects, enhancing

destination diversification. In Cape Town, Chirume and Makoni (2020) observed that marine littering and shoreline erosion reduced marine ecotourism viability, prompting investments into cultural and inland tours.

Within the African context, the TBL effects of cruise tourism are gaining attention. In Seychelles, Ramkalawan and Ngugi (2020) explored the environmental risks of increased cruise traffic through qualitative interviews with government officials and found that coral reef degradation had pushed the government to diversify into sustainable marine tourism. In Nigeria, Okonkwo and Chima (2021) analyzed the social impact of cruise tourism on port communities using community-based participatory methods and discovered a rising conflict over cultural dilution, which accelerated efforts to promote community-run tourism initiatives.

In Durban, South Africa, Dube and Nhamo (2022) conducted a descriptive survey of 160 municipal officers and tourism stakeholders, revealing that economic benefits from cruise tourism were used to fund environmental cleanups and township tourism, contributing to tourism diversification. In Cape Town, Chirume and Makoni (2020) used a mixed-methods design with 85 stakeholders and found that cruise-related pollution and marine degradation threatened heritage tourism and marine conservation efforts, prompting calls for eco-friendly diversification.

In Zanzibar, Tanzania, Nkwame and Kalume (2023) employed a mixed-methods study targeting 140 tourism stakeholders. They found that cruise tourism generated revenues that supported cultural homestays, spice farm tours, and village visits, contributing to social and economic diversification. Yusuf and Ally (2022) found that while cruise tourism enhanced social mobility, it also risked cultural erosion, leading to the development of homestays and music events as diversified tourism products.

Mthembu and Khumalo (2023) in Durban showed that social exclusion from cruise tourism led to strong public support for community-driven tourism products.

In Kenya, and specifically in Mombasa County, cruise tourism has steadily grown over the past decade, bolstered by port improvements and international cruise line interest. Okello and Gitau (2023) reported that cruise tourism increased job opportunities and SME activity around the port, with modest reinvestment into Swahili heritage tours and conference tourism. Mwangi and Muthoni (2023) documented social shifts in Mombasa, including cultural exchange benefits and challenges such as commodification of local identity. Yusuf and Ally (2022) noted that cultural exposure through cruise tourism led to community-led tourism products like spice farm tours. Alrawadieh et al. (2022) highlighted that Dubai's reinvestment strategies could inform Mombasa's efforts to broaden its tourism product base.

In Kenya, cruise tourism is a growing but under-researched area, especially in Mombasa County. Okello and Gitau (2023) conducted a descriptive survey among 120 tourism stakeholders in Mombasa, revealing that cruise tourism revenues were reinvested in Swahili heritage tours and conference tourism, aiding destination diversification. Mwangi and Omollo (2019) employed a descriptive design to assess environmental impacts of cruise tourism and found coral reef degradation and mangrove loss, which hindered efforts to promote marine-based ecotourism.

In another local study, Muthoni and Wekesa (2022) examined social outcomes of cruise tourism using structured interviews with community leaders and found that cruise arrivals promoted cultural preservation and employment but also raised concerns about social exclusion. Otieno and Karanja (2021) studied port-related infrastructure development and its spillover benefits, concluding that cruise-linked

improvements in roads and port facilities supported broader tourism growth in Mombasa. Lastly, Mutua and Mbogo (2020) analyzed the role of cruise tourism in SME development and found that artisans and vendors near the port benefited significantly, facilitating inclusive economic diversification.

The justification for this study stems from the growing relevance of cruise tourism as a key component of Kenya's coastal tourism economy, particularly in Mombasa County. With the recent modernization of the Mombasa Cruise Terminal and the integration of cruise tourism into the country's Blue Economy and Vision 2030 strategies, there is an urgent need to evaluate the broader implications of this sector beyond economic gains. Specifically, the study aims to examine the extent to which economic benefits, environmental challenges, and social effects of cruise tourism influence the development of diversified, inclusive, and sustainable tourism models in the region. Addressing this gap is critical for guiding evidence-based policies that align with Kenya's blue economy strategy, Vision 2030, and sustainable coastal tourism development goals.

1.3 Statement of the Problem

Cruise tourism has increasingly become a pivotal segment of the global travel industry, transforming many coastal destinations into major hubs of economic, social, and environmental activity. Mombasa County, Kenya's principal port city, has emerged as a key player in the Indian Ocean cruise circuit following the modernization of the Mombasa Cruise Terminal. While cruise tourism in Mombasa has contributed positively by creating employment, enhancing infrastructure, and stimulating local business activity—particularly for small and medium enterprises

(SMEs) and marginalized groups such as women and youth there remain critical concerns regarding its sustainability and the equitable distribution of benefits.

Although the triple bottom line (TBL) framework—encompassing economic, environmental, and social sustainability—offers a useful lens to evaluate the impacts of cruise tourism, there is a limited body of localized empirical research applying this model to the context of Mombasa. More importantly, the relationship between TBL impacts and the potential for coastal destination diversification remains underexplored. As Kenya seeks to reposition its coastal tourism offerings in line with Vision 2030 and the Blue Economy strategy, understanding how cruise tourism supports or hinders diversification into eco-tourism, cultural heritage tourism, and community-based tourism is critical.

The literature indicates that the triple bottom line (TBL) impacts—economic, environmental, and social—are rarely balanced in coastal destinations heavily dependent on cruise tourism. Globally and regionally, studies show that while economic gains are evident (Brida, Pulina & Riaño, 2020; Marques & Pinto, 2021; Dube & Nhamo, 2022), they are often accompanied by negative environmental externalities such as marine pollution, coral reef degradation, and coastal ecosystem disruption (Gabrielli, Cafiero & Ricci, 2021; Sun, Zhang & Ryan, 2021; Mwangi & Omollo, 2019). Furthermore, social impacts including overcrowding, cultural commodification, increased begging, and social displacement have been observed in several destinations (Brida & Zapata, 2020; Lekakou, Pallis & Vaggelas, 2020; Mancuso & Romano, 2023).

Despite these challenges, Mombasa has made limited progress in implementing robust tourism diversification strategies that reduce its vulnerability to the volatility of the

cruise market. While there is emerging interest in developing heritage tours, eco-tourism, and community-based tourism initiatives (Okello & Gitau, 2023; Mwangi & Muthoni, 2023), these efforts remain modest and fragmented. There is insufficient empirical evidence on how the combined economic, environmental, and social impacts of cruise tourism influence diversification in coastal destinations like Mombasa. Without a comprehensive understanding of the TBL dimensions, policy responses may be skewed toward short-term economic returns at the expense of long-term sustainability.

Mwangi and Omollo (2019) found that cruise-related pollution in Mombasa damaged marine ecosystems, making diversification into ecotourism more urgent. Despite these challenges, the county government has begun to support diversification by promoting cultural village tours, heritage trails, and marine parks. However, progress remains limited without cohesive planning and policy support.

Despite the increasing visibility of cruise tourism in Kenya, scholarly research on its comprehensive impacts remains scarce. Most existing studies focus either on economic contributions or environmental effects in isolation, with limited attention to the interconnectedness of economic, environmental, and social outcomes gap that this study seeks to address through the Triple Bottom Line (TBL) framework. Applying the TBL approach will help unpack whether and how cruise tourism contributes to coastal destination diversification, which is essential for building resilience, reducing seasonality, and expanding Kenya’s tourism portfolio to include eco-tourism, heritage tourism, and community-based initiatives. An understanding of the Triple Bottom Line impact of cruise tourism is critical to informing Mombasa's sustainable diversification strategy. Thus, the problem this study sought to address is the lack of

empirical evaluation of the triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County.

1.4 Objectives of the Study

1.4.1 General Objective

To examine the triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County, Kenya.

1.4.2 Specific Objectives

The following specific objectives guided the study.

i. To assess the economic impact of cruise tourism on coastal destination diversification in Mombasa County.
ii. To evaluate the environmental impact of cruise tourism on the diversification of tourism activities along the Mombasa coastline.
iii. To examine the social impact of cruise tourism on the diversification of coastal tourism products in Mombasa.
iv. To determine the combined effect of economic, environmental, and social impacts of cruise tourism on coastal destination diversification.

1.5 Hypotheses

The following hypotheses guided the study.

H_{O1}: There is no significant relationship between the economic impact of cruise tourism and coastal destination diversification in Mombasa County.

H_{O2}: There is no significant relationship between the environmental impact of cruise tourism and the diversification of tourism activities along the Mombasa coastline.

H_{O3}: There is no significant relationship between the social impact of cruise tourism and the diversification of coastal tourism products in Mombasa.

H_{O4}: There is no significant relationship between the triple bottom line impact of cruise tourism and coastal destination diversification.

1.6 Significance of the Study

An understanding of the influence of cruise tourism through a multidimensional lens will enable policymakers, tourism planners, and local stakeholders to develop evidence-based interventions that enhance positive outcomes while mitigating negative externalities. This is particularly crucial as Mombasa seeks to balance cruise-related investments with sustainable development principles.

From a policy perspective, the findings will equip national and county governments with data-driven insights to balance cruise-related investments against sustainability imperatives, directly informing Kenya's Blue Economy Roadmap and Vision 2030 tourism targets. The study will help regulators design environmental standards (e.g., waste-management protocols and coral-reef protection zones) and social safeguards (e.g., inclusive benefit-sharing schemes) that mitigate negative externalities while amplifying positive outcomes.

For industry stakeholders—port authorities, tour operators, SMEs, and investors—the research highlights which cruise-generated revenues and partnerships most effectively catalyze diversified products such as Swahili heritage tours, eco-lodges, and community-based tourism. This guidance can foster market resilience, reduce seasonality, and open new value chains for local entrepreneurs, especially women and youth.

At the community level, the study underscores pathways for maximizing social benefits—improved livelihoods, cultural preservation, and quality-of-life enhancements—while addressing residents' concerns about congestion, cultural dilution, and environmental degradation. Such insights can strengthen community participation in tourism planning and enhance public support for sustainable cruise development.

This study offers theoretical significance by extending the application of the Triple Bottom Line (TBL) framework to cruise tourism in a developing-country context (Kenya) thereby enriching scholarly understanding of how economic, environmental, and social impacts collectively shape coastal destination diversification. Empirically, it generates context-specific evidence for Mombasa County, a setting largely absent from the cruise-tourism sustainability literature, and thus fills a critical geographic and knowledge gap. The study will also provide context-specific insights that contribute to global debates on sustainable cruise tourism in developing countries, where data and empirical studies are still limited. The findings will be used by scholars and researchers to lay a foundation for future research.

1.7 Scope of the Study

The scope of this study was geographically, thematically, and demographically defined to focus on assessing the triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County, Kenya. Geographically, the research was confined to Mombasa County—Kenya's primary cruise tourism hub—owing to its strategic location along the Indian Ocean, the presence of the modernized Mombasa Cruise Terminal, and its status as a major economic and tourism center.

Thematically, the study was anchored on the Triple Bottom Line (TBL) framework, which examines the economic, environmental, and social dimensions of sustainability. Specifically, it explored how cruise tourism affects local employment and business revenue (economic impact), the marine ecosystem and environmental conservation (environmental impact), and cultural preservation, community wellbeing, and resident-tourist relations (social impact). Furthermore, the study linked these dimensions to the broader concept of coastal destination diversification, evaluating whether and how the presence of cruise tourism has stimulated the development of alternative tourism products such as eco-tourism, heritage tourism, and community-based experiences.

Demographically, the study targeted four key respondent groups: local community members, tour operators, tourism officers, and cruise tourists. This selection aimed to gather diverse perspectives on the direct and indirect effects of cruise tourism. A total sample of 489 respondents was drawn from an estimated population of 4,569 individuals using stratified random sampling (for community members) and purposive sampling (for other stakeholders), ensuring both representativeness and relevance.

In terms of methodology, the study employed mixed methods—using structured questionnaires for quantitative data and interview guides for qualitative insights. Data were analyzed using multiple linear regression to determine the influence of each TBL component on destination diversification, while thematic analysis was applied to qualitative responses.

1.8 Limitations of the Study

This study encountered several methodological limitations that may affect the interpretation, reliability, and generalizability of its findings. The study was

geographically limited to Mombasa County, Kenya. Although Mombasa is the country's primary hub for cruise tourism, its findings may not represent the experiences and dynamics of other coastal regions such as Lamu, Kilifi, or Kwale. These areas may face different challenges or possess unique opportunities to cruise tourism. To overcome this limitation, future research should expand the geographic scope to include a comparative analysis across multiple coastal counties. This would provide a more comprehensive understanding of cruise tourism's impacts along the Kenyan coastline.

The study also depended heavily on self-reported data collected through questionnaires and interviews. While these tools are effective for capturing perceptions and experiences, they are vulnerable to response biases such as social desirability bias, recall bias, or misunderstanding of survey items. Respondents may have overstated positive impacts or understated negative consequences of cruise tourism. Overcoming this limitation would require the triangulation of data collection methods. Researchers should integrate primary data with secondary sources such as port authority statistics, environmental monitoring reports, and tourism revenue records. Additionally, the use of observation techniques approaches can provide deeper insights into actual behaviors and unspoken perceptions.

Another limitation arises from the reliance on cross-sectional data collected at a single point in time in 2025. Cruise tourism, like many other tourism sectors, is dynamic and influenced by seasonal variations, global crises (such as pandemics), and changing consumer preferences. As such, the study may have captured only a snapshot of the ongoing impacts of cruise tourism, thereby limiting its capacity to reflect longer-term

trends. To address this, future studies should adopt longitudinal research designs, collecting data over multiple seasons or years.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a comprehensive review of the literature that forms the foundation of the study. It begins with a conceptual analysis of the key variables, followed by a theoretical review and an examination of relevant empirical studies. The interplay between the study variables, a conceptual framework is established. The chapter wraps up by summarizing the literature reviewed and highlighting any research gaps identified throughout the review.

2.2 Concept of Coastal Destination Diversification

Coastal destination diversification is a strategic tourism development approach aimed at broadening the offerings, target markets, and geographic appeal of coastal regions. Traditionally, coastal tourism has revolved around the "sun, sand, and sea" model, which—though profitable—often results in seasonal dependency, environmental degradation, and economic vulnerability (UNWTO, 2020). Following disruptions caused by the COVID-19 pandemic, there has been a strong global and regional push to diversify coastal destinations to enhance resilience, attract wider market segments, and promote sustainable development.

Globally, similar diversification strategies are being pursued. The 2025 EU Blue Economy Report highlights that coastal tourism in Europe is recovering robustly, with a clear shift toward sustainable and digital transitions. Authorities across the European Union are focusing on expanding coastal tourism beyond traditional beach holidays to include activities like wellness tourism, cultural festivals, gastronomic tours, and marine heritage excursions (European Commission, 2025). For instance, Spain has

reoriented parts of its coastal tourism sector toward active and experience-based segments such as cycling tourism, food tourism, and cultural immersion, helping to mitigate over tourism in previously overcrowded beach zones (Travel Daily News, 2024). Effective diversification requires collaborative governance, equitable planning, and capacity-building at the community level. Lessons from Southeast Asia indicate that community empowerment and participatory planning are crucial to avoid the pitfalls of enclave tourism and ensure that benefits are shared broadly (Southeast Asia Journal of Tropical Geography, 2024).

As developed nations seek to diversify their coastal destinations, there is a clear movement away from traditional mass tourism toward models that emphasise sustainability, inclusivity, and richer visitor experiences. In countries with advanced tourism economies like the United States of America, United Kingdom, Australia, Spain, Italy, Portugal, coastal tourism has long been a dominant attraction. However, overdependence on beach-centric mass tourism has brought challenges, including environmental degradation, seasonal unemployment, and socio-economic inequality. In response, developed nations have pursued diversification to spread tourism benefits spatially and temporally, appeal to niche and high-value markets, preserve ecological and cultural heritage, and future-proof coastal tourism against climate change and global shocks such as pandemics (UNWTO, 2022; OECD, 2021).

One prominent example of coastal destination diversification can be seen in **Spain**, particularly in the Balearic and Canary Islands, and the Costa del Sol region. Spain has been rebranding parts of its coastline to appeal to more discerning and diverse travelers. This includes promoting gastronomy tourism, cultural heritage, wellness tourism, and active holidays such as cycling and hiking. In the Canary Islands,

government and tourism boards have introduced initiatives to expand offerings beyond beach resorts by integrating rural and nature-based tourism, digital nomad packages, and cultural experiences (Travel Daily News, 2024). Furthermore, smart tourism strategies using digital platforms and data analytics have helped manage visitor flows, improve experiences, and encourage year-round visitation—addressing the seasonality problem that plagued coastal resorts in the past (European Commission, 2025).

In the United States, coastal diversification is evident in destinations such as California, Florida, and New England, where tourism planning has evolved to integrate ecological sustainability, cultural experiences, and climate resilience. In California, coastal cities like Santa Barbara and Monterey have moved beyond surf and beach culture to incorporate marine education (aquariums and conservation centers), wine tourism, whale watching, and historic missions (Visit California, 2023). In New England, coastal towns like Cape Cod have promoted heritage tourism, artisanal markets, culinary festivals, and maritime history tours to appeal to older travelers and cultural tourists. These efforts help maintain visitor interest year-round and reduce the burden of over tourism in peak summer months.

In the United Kingdom, particularly in regions like Cornwall and Devon, traditional seaside resorts have undergone reinvention. Once viewed as outdated, these destinations are now centers for arts and culture, food and drink experiences, marine heritage, and wellness tourism. Events such as the Falmouth Oyster Festival and the Eden Project's eco-education initiatives are designed to extend the visitor season and attract new market segments. The UK government's "Coastal Communities Fund" has

also invested in revitalizing underused coastal towns by promoting creative industries, outdoor activities, and improved infrastructure (DEFRA, 2022).

Australia, with its vast coastline, provides another leading case. The Great Ocean Road and Queensland's Sunshine Coast are not just beach destinations but are marketed through a mix of eco-tourism, indigenous heritage, adventure sports, and wellness tourism. Tourism Australia has also promoted reef and rainforest packages, cultural storytelling with Aboriginal communities, and volunteer tourism in conservation areas. These diversification efforts are underpinned by policies that seek to balance economic growth with ecological preservation, particularly in light of growing concern over the health of the Great Barrier Reef (Tourism Australia, 2022). Additionally, Australia's regional dispersal strategy encourages travelers to venture into lesser-known coastal towns, reducing the concentration of tourism in popular hubs and supporting rural coastal communities (Tourism Research Australia, 2023).

Similarly, Portugal has diversified its coastal offerings by blending traditional beach tourism with cultural festivals, culinary routes, and nature-based activities. In the Algarve, which was once primarily a summer beach destination, tourism authorities have introduced wine tourism, wellness retreats, birdwatching along the Ria Formosa, and rural tourism in the inland coastal hinterland. These efforts have not only reduced dependence on peak summer travel but also supported the local economy year-round. Portugal's "Tourism Strategy 2027" explicitly promotes diversification and sustainability through innovation, accessibility, and community inclusion (Turismo de Portugal, 2021).

Coastal destination diversification in African countries is an emerging and increasingly critical strategy to enhancing the sustainability, competitiveness, and

resilience of coastal tourism. This concept involves expanding the tourism product portfolio beyond the conventional beach-centered model to include a wider range of offerings such as cultural heritage, eco-tourism, marine-based activities, MICE, and community-based tourism.

In Africa, coastal tourism is a key socio-economic driver in development, especially for countries with extensive coastlines such as Kenya, South Africa, Tanzania, Senegal, Mozambique, and Ghana. However, heavy reliance on limited coastal attractions and seasonal international tourists has exposed the sector to vulnerabilities, making diversification not only strategic but essential. In many African coastal destinations, tourism has historically focused on "sun, sand, and sea" experiences designed primarily for foreign tourists, especially from Europe and North America (Christie et al., 2013). While this model generated foreign exchange and employment, it also led to environmental degradation, uneven spatial development, and socio-economic exclusion of local communities. Recent global shocks, including the COVID-19 pandemic, climate change, and geopolitical shifts have demonstrated the fragility of this tourism model. In response, several African countries are actively pursuing coastal destination diversification to foster resilience and inclusive growth.

Senegal has taken notable steps in diversifying its coastal tourism sector by promoting heritage tourism along the Petite Côte and historical attractions like Gorée Island. In addition, Senegal is tapping into MICE tourism through Dakar's emergence as a conference hub in West Africa and developing cruise infrastructure to attract new visitor segments (African Development Bank, 2022). Cultural events such as the Saint-Louis Jazz Festival also serve to attract visitors year-round, reducing the impacts of seasonality.

Mozambique has immense untapped coastal tourism potential, and diversification is seen as a key lever for long-term development. Across locations such as Inhambane and the Quirimbas Archipelago, there has been a push to establish eco-lodges, offer diving and snorkelling adventures, and launch community-driven tourism enterprises. These projects are backed by international organisations like the World Bank and UNDP, which stress the importance of inclusive coastal tourism that supports local populations and safeguards marine ecosystems (World Bank, 2021).

Ghana is increasingly promoting coastal heritage tourism along its Atlantic coast, with a focus on the country's rich and painful history of slavery. Forts and castles such as Elmina and Cape Coast have been restored and promoted as UNESCO World Heritage Sites, drawing diaspora tourists, especially African Americans. Events like the "Year of Return" in 2019 and its continuation as "Beyond the Return" have significantly boosted Ghana's coastal tourism diversification by blending cultural heritage, diaspora engagement, and modern entertainment (Mensah & Odoom, 2021).

South Africa presents a robust example of a diversified coastal tourism strategy, particularly in the Western Cape, KwaZulu-Natal, and Eastern Cape provinces. Coastal cities like Cape Town have successfully integrated MICE tourism, adventure activities (such as shark cage diving and coastal hiking), gastronomy tourism, and wine routes into their coastal offerings (Rogerson & Rogerson, 2019). Furthermore, township tourism and heritage trails have become integral parts of South Africa's coastal experiences, offering visitors a chance to engage with the country's complex history and diverse cultures.

At a regional level, the East African Community (EAC) has emphasized the importance of diversifying tourism products to stimulate intra-regional travel and

reduce reliance on international markets. A 2024 policy brief by the EAC highlighted how diversification into agro-tourism, cultural festivals, and regional MICE (Meetings, Incentives, Conferences, and Exhibitions) tourism could serve as catalysts for broader economic and social benefits in coastal and inland areas alike (EAC, 2024).

Tanzania, especially Zanzibar, has traditionally been viewed as a beach destination. However, the government and private sector have made concerted efforts to diversify by incorporating cultural tourism (e.g., Stone Town's UNESCO World Heritage Site), spice tours, diving expeditions, and traditional dhow sailing trips (UNWTO, 2020). Community-based tourism initiatives in fishing villages along the Swahili coast also aim to provide immersive experiences that benefit local populations directly, while reducing pressure on marine ecosystems.

In Kenya, the shift towards diversified coastal tourism is exemplified by initiatives such as the Go Blue Project, which integrates marine conservation, cultural heritage, and community empowerment to revitalize coastal counties like Mombasa, Kilifi, Lamu, and Tana River (Media for Nature, 2024). In addition to traditional beach tourism, these areas now promote eco-tourism in marine parks, cultural festivals rooted in Swahili heritage, community homestays, and cruise tourism. The Kenyan government has also introduced policy frameworks such as the National Tourism Strategy 2021–2024, emphasizing product and market diversification (Ministry of Tourism, 2023).

Despite these promising efforts, African coastal destination diversification still faces several challenges. These include inadequate infrastructure in emerging destinations, weak coordination between government and private sector actors, limited investment

in sustainable tourism, and environmental threats such as coastal erosion and coral bleaching. Moreover, some initiatives suffer from poor community participation, raising concerns about benefit distribution and long-term sustainability (UNEP, 2023). Addressing these issues requires integrated planning, investment in local capacity building, and policies that influence economic growth with the aim of creating synergy between it, preservation of the environmental and cultural.

In the Kenyan context, diversification efforts have gained significant traction, particularly through initiatives such as the Go Blue Project, launched in 2022 and funded by the European Union. This initiative aims to transform the Kenyan coastal economy by integrating tourism, culture, and marine conservation, while also promoting inclusive growth through community involvement and sustainable practices (Media for Nature, 2024). The project supports the development of alternative tourism products, such as cultural heritage trails in Lamu, marine eco-tourism in Watamu, and community-based experiences across Kilifi and Tana River. These efforts align with the goals of Kenya's 2021–2024 National Tourism Strategy, which emphasizes product diversification, spatial distribution of tourism benefits, and market targeting beyond the traditional international leisure traveler (Ministry of Tourism, 2023).

Coastal destination diversification is a critical strategy for enhancing the competitiveness, inclusivity, and sustainability of coastal tourism. Whether through developing new tourism products, targeting a broader array of visitors, expanding to new geographic areas, or leveraging digital and green innovations, diversification helps coastal regions like Kenya's adapted to shifting global tourism trends. When implemented thoughtfully—with community engagement, environmental

stewardship, and policy coherence can create more resilient and equitable coastal economies. Coastal destination diversification involves developing a wide range of tourism products, expanding target markets, and enhancing spatial and temporal distribution of tourism activities. The core dimensions of this strategy aim to reduce overdependence on traditional beach tourism, minimize environmental degradation, and distribute the economic benefits of tourism more equitably. These dimensions are crucial in building sustainable, inclusive, and resilient coastal destinations.

Product diversification is central to coastal tourism development. It involves expanding beyond the traditional "sun, sand, and sea" offerings to include varied tourism products such as Heritage, Cultural and eco-conscious tourism, marine-based activities (e.g., diving, dolphin watching), adventure sports, wellness and health tourism, Meetings, Incentives, Conventions, and Exhibitions (MICE), cruise tourism, and agro-tourism. For example, the *Go Blue Project* in Kenya has emphasized the integration of Swahili cultural heritage, marine parks, and local community experiences as part of its coastal tourism product diversification (Media for Nature, 2024). In Spain, traditional beach destinations have been rebranded with new activities like cycling tourism, gastronomy tours, and cultural festivals to attract a more varied tourist base (Travel Daily News, 2024).

Geographic diversification involves developing and promoting underutilized or emerging coastal areas to spread the impact of tourism across a broader region. This reduces pressure on overcrowded hotspots and ensures equitable distribution of tourism-related benefits. In Kenya, efforts are underway to develop lesser-known coastal counties such as Kilifi, Tana River, and Lamu, as alternatives to the more established Mombasa (Ministry of Tourism Kenya, 2023). By investing in

infrastructure and promoting unique offerings in these areas, tourism authorities can disperse visitor flows, reduce ecological degradation, and stimulate local economies.

Market (Demand) diversification focuses on attracting a broader spectrum of tourists, including domestic, regional, and international travelers across different demographic segments. Instead of relying solely on Western holidaymakers, destinations are now targeting niche markets such as youth travelers, retirees, digital nomads, high-net-worth eco-tourists, and regional visitors from neighboring countries. For instance, in the wake of COVID-19, Kenya increased its focus on the domestic market, offering discounted rates and promoting lesser-known attractions to sustain tourism activity (Campoea Safaris, 2024). Likewise, the East African Community (EAC) has prioritized cross-border tourism through joint marketing and visa facilitation to attract intra-regional visitors (EAC, 2024).

Seasonal diversification aims to extend tourism activities beyond peak travel seasons. This is particularly important for coastal regions, which often experience high tourist volumes during specific months and sharp declines during off-peak seasons. Strategies to address this include promoting year-round attractions such as conferences, local festivals, religious pilgrimages, sports events, and school holidays. The MICE sector, in particular, has become a significant tool in reducing seasonality. Mombasa, for example, has been promoted as a destination for corporate retreats and regional conferences during traditionally low seasons, thereby sustaining hotel occupancy and local employment (Ministry of Tourism, 2023).

Integrating cultural heritage and community-based tourism is another critical dimension. It enhances visitor experience through authentic engagement while empowering local communities economically and socially. This includes promoting

Swahili architecture, local cuisine, traditional dances, storytelling, and artisanal crafts. The Go Blue Project in Kenya has emphasized community participation in tourism product development, ensuring that coastal communities are not passive observers but active beneficiaries (Media for Nature, 2024). Such integration strengthens destination identity, preserves local heritage, and contributes to sustainable development.

With digital transformation reshaping global tourism, coastal destinations are increasingly adopting technology to diversify offerings and improve visitor experiences. This includes the use of digital marketing, virtual reality tours, online booking platforms, destination apps, and smart tourism infrastructure. The European Union's *Blue Economy Strategy* for 2025 emphasizes digital innovation as a key enabler of diversification in coastal tourism, citing examples such as mobile guide apps, digital ticketing, and AI-based visitor flow management tools (European Commission, 2025). Similarly, Kenya's Vision 2030 identifies ICT as a catalyst for sustainable and inclusive tourism development (Kenya ICT Authority, 2024).

Environmental and Sustainability-Based Diversification ensures that tourism growth aligns with environmental conservation principles. It includes diversifying tourism in ways that reduce ecological footprints, such as promoting low-impact activities, supporting eco-certification programs, and encouraging responsible visitor behavior. For instance, marine protected areas (e.g., Watamu Marine Park) have been leveraged for snorkeling, bird watching, and conservation education, balancing tourism and biodiversity protection (UNEP, 2023). Sustainable infrastructure, such as eco-lodges and solar-powered tour boats, is also part of this diversification trend.

Coastal destination diversification is multidimensional. It incorporates product innovation, spatial expansion, market targeting, temporal stability, cultural integration, digital adoption, and ecological balance. These dimensions are interconnected and, when pursued holistically, can transform coastal tourism into a more inclusive, sustainable, and resilient sector capable of withstanding external shocks and delivering long-term socio-economic and environmental benefits.

Kenya's coastal counties, especially Mombasa and Kilifi, have started investing in MICE infrastructure and cruise terminal upgrades to attract year-round tourism. In 2024 alone, cruise ship arrivals at the Port of Mombasa rose by over 160% compared to 2022, showcasing the potential of niche segments in transforming coastal economies (Campoea Safaris, 2024).

Diversification encompasses not only the expansion of tourism products but also geographical and temporal aspects. Geographically, it involves promoting lesser-known coastal regions—such as Lamu, Tana River, and Kwale—as alternatives to the traditionally dominant Mombasa, thereby spreading tourism benefits and reducing environmental strain. Temporally, it includes developing events and attractions that appeal to tourists in off-peak seasons, such as cultural festivals, coastal marathons, and educational retreats. These efforts help address the challenge of seasonality, a major barrier to year-round employment and business sustainability in coastal areas (Baum & Lundtorp, 2021). Additionally, by targeting a wider range of market segments—such as domestic tourists, regional travelers, cruise passengers, and business delegates—destinations can build economic resilience and reduce vulnerability to global travel shocks (UNWTO, 2022).

Despite its many benefits, implementing coastal destination diversification is not without challenges. Infrastructure limitations, particularly in underdeveloped areas like parts of Kilifi and Tana River, hinder accessibility and service delivery. Furthermore, spatial exclusion—where high-end resorts marginalize local communities—can exacerbate inequality if diversification strategies are not inclusive (Wiley Online Library, 2024).

Digital innovation is also playing a growing role in diversification. Coastal destinations are increasingly leveraging digital platforms for destination marketing, visitor experience enhancement, and data-driven management. In Europe and Kenya alike, initiatives are underway to introduce smart tourism infrastructure such as digital visitor guides, online booking portals, and virtual cultural tours (European Commission, 2025; Ministry of ICT Kenya, 2024). These technological advancements not only attract younger, tech-savvy tourists but also improve sustainability by reducing reliance on physical infrastructure and printed materials.

2.3 Concept of Cruise Tourism

Cruise tourism is a form of leisure travel that involves journeying on a cruise ship, where the vessel itself serves as both transportation and destination. It is where maritime and tourism converge to offer passengers multi-day voyages, often with scheduled stops (port calls) at various destinations. Cruise tourism combines transportation, accommodation, entertainment, and tourism experiences into a single product, making it a comprehensive travel experience (Papathanassis, 2017).

Coastal cruise tourism refers to a specific segment of cruise tourism that focuses on itineraries along coastlines, involving multiple stops at port cities or coastal destinations. Unlike deep-sea or transoceanic cruises that may include long days at

sea or ocean crossings, coastal cruise tourism is characterized by relatively short distances between ports, frequent docking, and enhanced engagement with coastal environments, communities, and cultures (Papathanassis, 2017). This form of tourism enables passengers to explore a variety of coastal regions within a single voyage, often emphasizing scenic, cultural, historical, and ecological experiences along the shore.

Cruise tourism is characterized by its floating resort model, where ships are equipped with luxury amenities such as restaurants, theaters, casinos, spas, shopping centers, swimming pools, and recreational activities. This makes cruise ships self-contained environments offering a wide range of services, contributing to their popularity among tourists seeking both relaxation and adventure (Dowling & Weeden, 2017). Cruises typically vary in duration—from short two-day getaways to extended world cruises lasting several months—and serve a variety of market segments, including families, couples, senior travelers, and luxury seekers.

Coastal cruise tourism has become increasingly popular, particularly in regions where rich coastal heritage, biodiversity, and accessible port infrastructure coexist. Destinations such as the Mediterranean (e.g., Italy, Greece, Spain), the Baltic Sea (e.g., Sweden, Estonia, Finland), and the Caribbean all offer well-developed coastal cruise circuits. These cruises provide travelers with diverse onshore experiences, such as visiting historic towns, marine parks, fishing villages, UNESCO heritage sites, and beach resorts. The appeal lies in the balance between leisure onboard and exploration ashore (Dowling & Weeden, 2017).

The cruise tourism industry has grown over the past three decades, particularly in regions such as the Caribbean, the Mediterranean, Northern Europe, Alaska, and more

recently, Africa and Asia. Recent data from the Cruise Lines International Association (CLIA, 2023) highlights a robust resurgence in global cruising, with projections indicating that more than 30 million travellers will embark on cruises in 2024. This growth is attributed to expanding fleet sizes, innovative ship designs, diversified itineraries, and the appeal of "hassle-free" travel where accommodation, meals, and entertainment are bundled into a single price.

From a developmental perspective, cruise tourism is seen as one way for economic diversification, especially for developing countries with coastal zones. The African Union, for instance, recognizes cruise tourism as a priority sector within its Blue Economy framework. Countries like Kenya, Mauritius, Seychelles, and South Africa are increasingly investing in cruise tourism to create jobs, boost foreign exchange earnings, and support coastal development (AU-IBAR, 2022).

The role Cruise tourism in port and destination development is significant, as coastal cities often invest in infrastructure such as cruise terminals, ports, and supporting services to accommodate and attract cruise ships. Ports such as Miami (USA), Barcelona (Spain), Sydney (Australia), and Cape Town (South Africa) have become major cruise hubs. In Kenya, the Port of Mombasa has increasingly attracted cruise lines due to infrastructure upgrades and its location along key Indian Ocean routes (Kenya Ports Authority, 2023). Cruise tourism can stimulate local economies through passenger spending, port fees, and shore excursions, benefiting sectors such as transport, retail, food services, and cultural attractions.

A key feature of cruise tourism is itinerary-based destination sampling, where passengers can visit multiple coastal destinations in one trip. This makes cruise travel appealing to tourists who want to experience several countries or cities without the

logistical challenges of arranging transportation and lodging at each stop. However, this also raises concerns about the limited time and shallow engagement passengers have with destinations, leading to debates over the economic benefits for host communities versus the environmental and social impacts (Klein, 2011).

In developing regions, especially Africa, coastal cruise tourism is an emerging opportunity for economic growth, coastal development, and cultural exchange. Countries such as Kenya, South Africa, Seychelles, Mauritius, and Tanzania are positioning themselves to benefit from the cruise industry by upgrading port facilities, enhancing security, and developing shore excursion options (AU-IBAR, 2022). For instance, Kenya's Port of Mombasa has become a gateway for cruise tourism in East Africa, attracting vessels like MSC Sinfonia and offering access to coastal attractions such as Fort Jesus, Old Town, and marine parks (Kenya Ports Authority, 2023).'

A defining feature of coastal cruise tourism is its ability to boost multiple coastal destinations in one itinerary, thereby distributing economic and tourism benefits across a wider area. Unlike resort-based tourism that concentrates revenue in a single location, cruise ships promote a multi-stop model that includes various small and mid-sized port cities. This allows underdeveloped or lesser-known coastal towns to gain visibility and economic activity through tourism spending, job creation, and infrastructure investment (Christie et al., 2013).

The environmental impact of cruise tourism has come under increasing scrutiny. Issues such as marine pollution, fuel emissions, overcrowding at ports, and unsustainable tourism practices have prompted governments and cruise companies to adopt greener technologies and sustainability measures. Modern cruise ships are now being built with improved waste management systems, cleaner fuel alternatives like

LNG, and shore power capabilities to reduce emissions while docked (CLIA, 2023; UNEP, 2022).

Cruise tourism is a rapidly evolving and multifaceted segment of the global tourism industry. It merges luxury travel with maritime mobility, offering diverse experiences to a growing clientele. While it presents economic and social opportunities—particularly for coastal destinations—it also poses sustainability challenges that require coordinated governance, regulation, and innovation. As the industry expands into new markets like Africa and Asia, balancing growth with environmental and community wellbeing will be essential for long-term viability.

2.4 Concept of Triple Bottom Line Impact of Cruise Tourism

The Triple Bottom Line (TBL) concept of cruise tourism refers to the multidimensional evaluation of its impacts on economic, social, and environmental pillars of sustainability. Introduced by John Elkington in 1994, the TBL framework goes beyond traditional financial performance by emphasizing the need to balance profit (economic viability), people (social equity), and planet (environmental responsibility) in development activities—including tourism (Elkington, 1997). When applied to cruise tourism, TBL impact assessment helps stakeholders—governments, port authorities, cruise lines, and communities—understand the broader implications of the industry and plan for more sustainable, inclusive coastal development.

Cruise tourism has substantial economic potential, particularly for port cities and coastal communities. It generates direct revenue through passenger and crew spending, port fees, ship provisioning, and employment in sectors such as transportation, retail, food services, and tour operations (CLIA, 2023). For instance, the Cruise Lines International Association reported that in 2022 alone, the cruise

industry contributed over $155 billion to the global economy, supporting approximately 1.2 million jobs.

Cruise tourism in developed countries has contributed substantially to economic development through job creation, port revenue, infrastructure investment, and visitor spending. According to CLIA (2023), the cruise industry generated more than $155 billion in global economic output in 2022, with the largest contributions from North America and Europe. Major cruise hubs such as Miami, Barcelona, Southampton, and Sydney support extensive supply chains—including food, logistics, transportation, and fuel—and employ thousands of people in port services, shipbuilding, and tourism services.

In Spain, particularly in Barcelona and the Balearic Islands, cruise passengers contribute significantly to local economies through port fees, guided tours, museum visits, and retail purchases. Similarly, Florida's cruise industry supports over 150,000 jobs, contributing billions to the state's GDP (Visit Florida, 2023). However, the economic benefits are often unevenly distributed, with criticism that a large share of revenue is retained by cruise corporations headquartered in tax-friendly jurisdictions like Panama or Liberia (Klein, 2011). Moreover, local businesses in port cities sometimes struggle to compete with pre-booked excursions and on-board amenities, reducing their share of tourist spending.

Ports like Mombasa (Kenya), Zanzibar (Tanzania), Lagos (Nigeria), Castries (St. Lucia), and Cochin (India) now receive international cruise liners, enabling local businesses to benefit from passenger spending on excursions, crafts, food, and cultural experiences (AU-IBAR, 2022; UNWTO, 2022). In Kenya, for example, the Kenya Ports Authority (2023) reported that cruise arrivals have increased steadily since

2018, especially following port terminal upgrades. This has benefited tour operators, curio sellers, transport providers, and hoteliers in Mombasa.

Similarly, in the Caribbean, countries like St. Kitts & Nevis and Grenada derive a significant share of tourism revenue from cruise visitors, especially during the high season (WTTC, 2023). However, the economic benefits are often concentrated among tour agencies and foreign cruise companies, with limited trickle-down to small-scale local businesses. Cruise lines tend to promote their own onboard services and partner vendors, leaving local informal economies underserved. This dynamic contributes to the issue of economic leakage, where a significant share of the profits generated by cruise tourism flows out of the host country, ultimately hindering sustainable local development (Klein, 2011).

In destinations like Mombasa, Kenya, cruise tourism supports local businesses by bringing in high volumes of international tourists, even if for short periods. Similarly, in the Caribbean and Mediterranean, cruise tourism sustains seasonal employment, port infrastructure, and small and medium-sized enterprises (SMEs). However, critics argue that much of the cruise revenue remains with the cruise lines themselves, due to onboard spending and pre-booked excursions, raising concerns about economic leakage (Klein, 2011).

The social dimension of cruise tourism includes impacts on local culture, heritage, community wellbeing, and social infrastructure. On the positive side, cruise tourism can promote cultural exchange, raise global awareness of local traditions, and foster pride in heritage among host communities. In destinations like Zanzibar, St. Lucia, or Cape Town, tourists often engage with local dances, cuisine, crafts, and guided heritage tours, thus supporting cultural preservation and community-based tourism

(UNWTO, 2022). However, the social impact can also be negative when cruise tourism leads to overcrowding, increased cost of living, commercialization of culture, or marginalization of local residents. Port cities like Venice, Italy and Barcelona, Spain have protested against "overtourism," as mass cruise arrivals strain public services and degrade residents' quality of life (Garay & Cànoves, 2020).

Cruise tourism in developed nations can enhance cultural exchange, preserve heritage sites, and support local communities. It brings in diverse global visitors, increases awareness of local traditions, and contributes to the revitalization of coastal towns through tourism-related jobs and infrastructure. For example, in the United Kingdom, coastal cities like Southampton and Liverpool have seen urban regeneration efforts aligned with the growth of cruise tourism. In Italy, Venice benefits from cruise-related cultural tourism that sustains local artisans, museums, and festivals (Garay & Cànoves, 2020).

However, social challenges often outweigh the benefits when cruise arrivals overwhelm local populations, especially during peak seasons. In Venice, for instance, residents have protested against the environmental and social intrusion of cruise ships, which have contributed to depopulation, housing inflation, and the commercialization of cultural spaces. Similar tensions exist in Dubrovnik, Barcelona, and Santorini, where “overtourism” linked to cruise visits has strained public services, reduced local quality of life, and sparked anti-tourism sentiment (UNWTO, 2022).

Governments in developed countries are now taking proactive social measures to mitigate these issues—such as regulating the number of cruise ship arrivals, imposing tourist taxes, and developing crowd management plans—to ensure that tourism development is inclusive, community-centered, and culturally respectful (OECD,

2021). In developing contexts, such as East Africa, there is growing attention to ensuring local participation, gender inclusivity, and fair labor practices in cruise tourism-linked enterprises.

In Tanzania, community-based tourism initiatives have emerged to engage local artisans, dancers, and storytellers in cruise shore excursions, fostering local empowerment and cultural revitalization (UNEP, 2022). In Mauritius and Seychelles, cruise tourism is increasingly aligned with inclusive development strategies that prioritize indigenous participation and skills development in hospitality and maritime sectors.

Nonetheless, cruise tourism can have adverse social effects. Sudden tourist influxes often overwhelm local services, inflate prices, and result in cultural commodification—where traditions are staged or altered to meet tourist expectations. In cities like Zanzibar, concerns have been raised about crowding, harassment of female workers, and cultural authenticity is adversely affected due to rapid tourism commercialisation (Media for Nature, 2024). Further, many developing countries lack strong labor protections or benefit-sharing mechanisms, leading to exploitation of workers, especially in informal or unregulated tour operations. Women and youth—while involved in the tourism sector—often face barriers to career advancement and income equity (UNWTO, 2022; Christie et al., 2013).

The environmental footprint of cruise tourism is perhaps its most contested aspect. Cruise ships consume significant amounts of fuel and generate large volumes of waste, releasing pollutants such as greenhouse gases, sulfur oxides, and nitrogen oxides into the environment. These emissions contribute to both air and marine pollution. Additional challenges, including ballast water discharge, oil leaks, and

improper waste disposal, have heightened concerns regarding the industry's adherence to environmental regulations (UNEP, 2022). For instance, a single cruise ship can emit as much CO_2 per kilometre as several thousand cars, especially when burning heavy bunker fuel (Walker, 2021).

Cruise tourism's environmental footprint in developed countries is significant, particularly in sensitive coastal and marine ecosystems. Cruise ships are heavy consumers of fuel, generating high levels of greenhouse gas emissions, airborne pollutants (NOx, SOx), and marine waste, all of which threaten the sustainability goals of host countries. According to a 2021 report by Transport & Environment, one large cruise ship can emit more sulfur dioxide than several million cars, particularly when burning heavy bunker fuels.

In Norway's fjords, concerns about emissions from cruise ships have led to the implementation of zero-emission zones, where only electric or hybrid vessels will be allowed by 2026 (Norwegian Ministry of Climate and Environment, 2022). In a similar vein, regions like California and British Columbia have adopted shore power solutions that allow docked cruise ships to connect directly to the local electrical grid. This practice enables ships to switch off their diesel engines while in port, resulting in a significant reduction in air pollution in these coastal areas (CLIA, 2023).

Waste management is another critical concern. Cruise ships generate thousands of litres of wastewater daily, including sewage, greywater, bilge water, and food waste. Developed nations have implemented strict maritime regulations (e.g., MARPOL Annex IV and Ballast Water Management Convention) to control discharge and protect marine ecosystems. Ports in Germany, Australia, and Canada also enforce mandatory waste audits and environmental compliance for visiting cruise ships.

Nonetheless, corporate sustainability efforts are growing, with major cruise lines like Royal Caribbean, MSC Cruises, and Carnival investing in LNG-powered ships, waste-to-energy systems, and green certifications (e.g., ISO 14001). These actions demonstrate increasing alignment with the TBL sustainability agenda, but critics argue that enforcement and transparency still vary widely across jurisdictions (Walker, 2021).

In vulnerable coastal and marine environments, such as the coral reefs found in the Indian Ocean, the Caribbean, and the South Pacific, ongoing cruise ship activity can inflict harm through anchoring, increased sediment, and overcrowding. As a result, sustainability measures are now central to the industry's future. Many cruise lines have adopted greener ship designs, use liquefied natural gas (LNG), install scrubbers, and develop waste treatment systems onboard. Ports like Stockholm, Sydney, and Miami are also investing in shore power systems to reduce emissions during docked periods (CLIA, 2023; European Commission, 2025).

The TBL model encourages destination managers and cruise lines to integrate environmental regulations, community benefit-sharing, and inclusive economic planning into their development strategies. In Africa, the African Union’s Blue Economy Strategy recommends using the TBL framework to guide investment in maritime and coastal tourism, including the cruise sector (AU-IBAR, 2022). The goal is to maximise socio-economic benefits, minimise environmental degradation, and promote inclusive governance.

Cruise tourism poses significant environmental challenges to fragile marine and coastal ecosystems in developing countries. Cruise ships commonly rely on heavy fuel oil, which results in substantial emissions of sulfur dioxide, nitrogen oxides,

carbon dioxide, and particulate pollutants. Developing countries often lack monitoring capacity, pollution control infrastructure, and environmental regulations to mitigate these impacts (UNEP, 2022).

Cruise-related activities can lead to coral reef degradation, anchor damage, littering, sewage dumping, and coastal erosion, especially in regions dependent on marine biodiversity for fishing, tourism, and livelihoods. In the Indian Ocean islands (e.g., Seychelles, Madagascar), rising cruise traffic has coincided with reported environmental stress on marine parks and lagoons. Moreover, climate change—already affecting coastal communities through sea level rise and extreme weather—may be exacerbated by increased carbon emissions from cruise ships unless cleaner technologies are adopted.

Nonetheless, some countries are adopting greener cruise strategies. For instance, South Africa's Oceans Economy Master Plan incorporates sustainability benchmarks for port operations and waste management. Kenya's Go Blue Initiative promotes marine conservation, plastic reduction, and eco-tourism in areas targeted for cruise tourism expansion (AUDA-NEPAD, 2023). Partnerships with international organizations and NGOs have supported capacity building, environmental education, and green port infrastructure development. Efforts such as the Go Blue Project along Kenya's coast promote a TBL-aligned approach by combining marine conservation, port improvement, local community training, and heritage preservation to enhance the sustainability of cruise tourism in places like Mombasa, Kilifi, and Lamu (Media for Nature, 2024).

By applying the Triple Bottom Line framework, stakeholders can gain a holistic understanding of the multifaceted effects cruise tourism has on coastal locations and

use this perspective to guide effective management practices. While the sector provides clear economic benefits and social opportunities, it also poses considerable risks to environmental integrity and social equity. Applying the TBL approach encourages stakeholders to seek balanced outcomes that support long-term sustainability, responsible tourism practices, and community well-being. As cruise tourism continues to expand, especially in the developing world, its alignment with TBL principles will be essential in ensuring that its growth contributes meaningfully to people, planet, and profit.

2.5 Theoretical Review

This section explores theories that underpin strategic reforms, leadership, and police service performance as the foundation for this study. Swanson (2013) notes that theories are developed to explain, anticipate, and interpret phenomena, while also critiquing and expanding upon existing knowledge within specified assumptions. A theoretical framework, therefore, outlines and articulates the theories that provide a rationale for the existence of the research problem.

2.5.1 Sustainable Development Theory

The Sustainable Development Theory was formally proposed by the World Commission on Environment and Development (WCED) in 1987 through its landmark publication *Our Common Future*, commonly known as the *Brundtland Report*. The commission, led by Gro Harlem Brundtland, introduced the concept of sustainable development as “development that satisfies the needs of the present without hindering future generations from fulfilling their own needs” (WCED, 1987). The Brundtland Report highlighted the pressing need to tackle environmental decline while also advancing global fairness and fostering economic progress. Although the

concept had been emerging through environmentalist discourse since the 1970s, it was the Brundtland Report that consolidated and globalised the sustainable development narrative. The commission's work became the foundation for numerous global agreements and strategies, including the Agenda 21 action plans from the 1992 Earth Summit and the United Nations Sustainable Development Goals (SDGs) adopted in 2015.

This theory emerged as a response to growing global concerns about environmental degradation, economic inequality, and social injustice. It has since become a guiding framework for development policies across multiple sectors, including tourism, environmental management, and urban planning. Central to Sustainable Development Theory is the balance of three essential pillars: safeguarding the environment, fostering economic progress, and ensuring social fairness—a trio commonly referred to as the Triple Bottom Line (Elkington, 1997). This holistic model posits that true development cannot be achieved by focusing on economic metrics alone but must incorporate long-term environmental sustainability and equitable social progress. It recognises that unchecked economic development often leads to environmental degradation and widening social disparities. Therefore, any meaningful development strategy must strive to balance these three domains, especially in sectors such as cruise tourism, which directly interact with fragile coastal and marine ecosystems and impact on the livelihoods and cultures of local communities.

The Sustainable Development Theory has become one of the most influential paradigms guiding global development discourse, especially in sectors where environmental, economic, and social interests converge. This theory holds particular significance within tourism, since the long-term viability of destinations relies on

balancing ecological conservation, economic prosperity, and the well-being of local communities. As cruise tourism continues to grow and increasingly targets coastal areas, the theory offers a comprehensive lens through which to evaluate its triple bottom line impacts—environmental, economic, and social—on coastal destination diversification.

One of the primary principles guiding Sustainable Development Theory is intergenerational equity, which holds that the current generation has a responsibility to manage resources in a way that does not deprive future generations of their needs (Mensah, 2019). This principle challenges short-term, exploitative development models by promoting a long-term vision grounded in ecological balance and social fairness. In tourism planning, this translates into preserving biodiversity, minimizing waste, and investing in infrastructure and community capacity that will serve both current and future populations.

A second key principle is the integration of the three sustainability pillars. This principle asserts that development decisions must concurrently address economic viability, environmental stewardship, and social inclusion. Within the context of cruise tourism, this could mean that developing ports should prioritise supporting local communities and protecting cultural traditions, all while taking steps to limit environmental damage—such as implementing sustainable waste practices and switching to cleaner energy sources (Sharpley, 2009). The balance of these three pillars is often delicate, and the Sustainable Development Theory encourages cross-sector collaboration to avoid zero-sum trade-offs.

The theory also endorses the precautionary principle, which advises against actions that could cause severe or irreversible harm to the environment or society, especially

where scientific evidence is lacking (Redclift, 2005). This is especially relevant in cruise tourism, where introducing large-scale infrastructure or high tourist volumes to ecologically sensitive coastal regions could result in long-term ecological damage. This principle calls for rigorous environmental impact assessments and adaptive management strategies that prioritize conservation.

A further central tenet is ensuring inclusive public participation, which highlights the necessity of actively engaging local stakeholders—including marginalised and indigenous communities—in the development planning process. Sustainable development is not just about achieving outcomes but also about how those outcomes are reached—through participatory, transparent, and democratic processes (Saarinen, 2006). In coastal destinations, community involvement ensures that tourism initiatives reflect local values, needs, and capacities, thereby enhancing their sustainability and legitimacy.

Closely related is the principle of equity and social justice, which demands that the benefits of development be shared fairly and that development should actively work to reduce poverty, marginalization, and social inequality (Mensah, 2019). In cruise tourism, this could involve supporting local entrepreneurs, promoting fair wages, creating opportunities for women and youth, and ensuring that cultural tourism respects and benefits local traditions and identities.

The sustainable use of resources is another core principle. It advocates for efficient, regenerative, and responsible use of natural capital—such as water, forests, marine biodiversity, and clean air. The goal is to maintain ecological integrity while allowing for economic development. For cruise tourism, this includes promoting environmentally friendly practices on board ships, supporting low-impact tourism

activities on shore (e.g., eco-tours, guided nature walks), and ensuring infrastructure projects like terminals and roads do not harm ecosystems.

Finally, the polluter pays principle argues that those causes environmental damage should bear the costs of remedying it. This encourages accountability and aligns with the idea of internalizing external environmental costs into economic decisions. In cruise tourism, this could take the form of environmental taxes on cruise ships, penalties for pollution, or mandatory investments in sustainable technologies and community development programs.

Despite its many strengths, Sustainable Development Theory is not without criticism. One of the most frequently cited weaknesses is its conceptual vagueness. The term “sustainable development” is broad and often lacks precise boundaries, making it vulnerable to misinterpretation or misuse. Governments and corporations may adopt the language of sustainability without fundamentally altering exploitative or environmentally harmful practices—a phenomenon often referred to as "greenwashing" (Sharpley, 2009). This undermines the credibility and effectiveness of the theory when not backed by genuine commitment and transparent evaluation.

Another criticism is the difficulty in measuring sustainability, particularly the social component. While environmental and economic impacts can often be quantified, aspects such as cultural preservation, community well-being, or intergenerational justice are more abstract and context-dependent (Redclift, 2005). This presents challenges in assessing the effectiveness of sustainable development initiatives or comparing outcomes across regions.

The implementation gap is another notable weakness. While the theory provides an ideal framework, actualizing its principles is often constrained by political resistance, lack of institutional capacity, insufficient funding, and conflicting stakeholder interests. For instance, port authorities and cruise companies may prioritize profit over ecological concerns, especially in developing countries where regulatory frameworks are weak.

Moreover, balancing the three pillars—economic, environmental, and social—is often complex and contentious. There are inherent trade-offs, and the theory offers limited guidance on how to resolve conflicts when the pillars are at odds. For example, a cruise port might create jobs and boost tourism revenue but degrade local ecosystems and disrupt traditional livelihoods. Without robust governance mechanisms and conflict resolution strategies, the sustainability agenda can become paralyzed by competing demands.

Nevertheless, despite its limitations, Sustainable Development Theory remains a critical and evolving framework for guiding policy and practice, particularly in tourism development. In the context of cruise tourism and coastal destination diversification, it provides essential criteria for assessing whether tourism growth is aligned with long-term environmental health, economic resilience, and social inclusion.

The cruise tourism industry has rapidly become one of the most dynamic and expanding segments within global tourism, bringing profound effects to coastal regions. Although cruise tourism can help broaden local economies by generating employment, fostering small and medium enterprises, and boosting foreign currency inflows, it simultaneously threatens marine ecosystems, increases air and water

pollution, and can place additional demands on local infrastructure and resources (Hall, 2011). Applying Sustainable Development Theory helps stakeholders evaluate and mitigate these risks while maximising benefits.

From an environmental perspective, cruise tourism's sustainability can be enhanced by investing in cleaner fuel technologies, enforcing strict pollution controls, and developing eco-friendly shore excursions. Sustainable port development must incorporate environmental impact assessments, minimise dredging and coastal alteration, and protect sensitive marine habitats. The theory encourages continuous innovation in reducing the environmental footprint of cruise operations and promoting low-impact tourism models.

Cruise activities often place a heavy burden on fragile marine ecosystems. Studies by Sun, Zhang, and Ryan (2021) and Demirtaş and Aykan (2023) report coral reef degradation, air and water pollution, and carbon emissions as key environmental costs. Sustainable Development Theory requires the internalisation of such externalities into tourism planning through eco-friendly infrastructure and regulatory safeguards.

Cruise tourism places considerable pressure on marine and coastal ecosystems. Issues such as anchorage damage to seabeds, coral reef destruction, marine pollution, and air emissions from ships are well-documented. Sustainable Development Theory calls for environmental assessments, eco-friendly technologies, and responsible waste management practices. Destinations must develop environmental regulations and infrastructures such as green ports and sustainable waste facilities to mitigate these impacts.

From an economic standpoint, sustainable cruise tourism should support local economies through links with local businesses—such as transport operators, artisans, food vendors, and accommodation providers. Destination diversification can spread economic benefits across wider geographical areas, reduce tourism concentration in a few hotspots, and build resilience to seasonal fluctuations. Sustainable Development Theory promotes inclusive growth by emphasising that economic benefits must reach local communities, not just cruise operators or large international firms.

Cruise tourism can diversify local economies by creating employment, stimulating SMEs (e.g., transport, crafts, hospitality), and generating foreign exchange. Under the lens of Sustainable Development Theory, economic benefits must be inclusive and long-term. This involves ensuring fair wages, supporting local entrepreneurship, and preventing economic leakage to foreign-owned cruise lines. It also means investing in infrastructure (ports, roads, terminals) that serves both tourists and local populations.

Increased cruise traffic generates revenue through port charges, accommodation, food services, cultural excursions, and handicraft markets (Brida, Pulina & Riaño, 2020; Marques & Pinto, 2021). However, reliance on cruise markets alone introduces vulnerability to seasonal shifts and external shocks. According to Papathanassis and Beckmann (2020), reinvesting economic benefits into diversified tourism offerings increases local economic resilience.

From a social perspective, the theory advocates for actions that boost community involvement, safeguard cultural traditions, and elevate residents' overall well-being. Cruise tourism should promote respectful cultural exchanges, protect indigenous rights, and avoid cultural commodification. Communities must have a say in tourism planning, and education and training programs can empower locals to take active

roles in the cruise tourism value chain. Moreover, mitigation strategies should be in place to address challenges such as overcrowding, rising cost of living, and changes in social behaviour often associated with mass tourism.

Cruise tourism fosters cultural exchange, heritage preservation, and community engagement. However, it can also lead to cultural commodification, overcrowding, and disruption of local lifestyles. The theory emphasizes the need for tourism that respects local values and enhances community well-being. Involving communities in tourism planning, offering cultural experiences that are authentic and respectful, and regulating tourist behavior are vital to achieving socially sustainable outcomes. While cruise tourism can uplift communities by improving infrastructure and fostering cultural exchange (Silva & Fernandes, 2021), it may also create inequality, social displacement, and moral tensions (Brida & Zapata, 2020; Mancuso & Romano, 2023). The theory highlights the importance of social inclusion, community participation, and empowerment—especially for women and youth—as foundations for sustainable tourism growth.

Furthermore, destination diversification aligns well with sustainable development goals. By developing a range of alternative tourism experiences—such as eco-tourism, heritage routes, and agricultural tourism—coastal regions can lessen their reliance on cruise tourism as the primary source of visitors. This makes them more adaptable to external shocks like pandemics, economic downturns, or climate-related events. Sustainable Development Theory advocates for this kind of resilience-based planning, which supports long-term community stability and environmental conservation.

Sustainable Development Theory is widely used in tourism studies for evaluating long-term viability and equity in destination development (UNWTO, 2023). Its relevance to this study stems from its holistic nature—it goes beyond profit analysis to encompass the well-being of the environment and society, making it ideal for analysing tourism's multifaceted impact on coastal areas like Mombasa. The theory's strength lies in: Encouraging balanced development to avoid overdependence on a single tourism product (Elkington, 1997). Promoting inclusive tourism models that benefit marginalised communities (Silva & Fernandes, 2021). Advocating environmental stewardship in policymaking and investment planning (Gabrielli et al., 2021).

This theory is highly relevant in cruise tourism contexts, where high-volume economic activities (e.g., port revenues, hotel occupancy, and SME growth) may lead to environmental degradation (e.g., water pollution, waste disposal) and social disruption (e.g., cultural erosion, gentrification) if left unchecked (Rahman, Zaki & Hasan, 2022; Gabrielli, Cafiero & Ricci, 2021). By examining the triple bottom line impacts, the theory aligns with the goals of coastal destination diversification, which involves shifting from cruise-centric models to broader tourism alternatives, such as eco-tourism, heritage trails, cultural festivals, and community-based tourism.

Sustainable Development Theory offers a powerful, if complex, framework for assessing and guiding the triple bottom line impacts of cruise tourism on coastal destination diversification. Its emphasis on intergenerational equity, stakeholder participation, and the integration of economic, environmental, and social goals provides a comprehensive roadmap for sustainable tourism development. While implementation challenges persist—such as measurement difficulties, trade-offs, and

political resistance—the theory remains indispensable in aligning tourism growth with broader sustainability objectives.

Cruise tourism represents a growing segment of global tourism and has a significant impact on coastal destinations. Sustainable Development Theory is especially relevant in evaluating how this form of tourism affects destination diversification, the process by which destinations broaden their tourism offerings beyond traditional products and sites to attract a wider range of visitors. Sustainable Development Theory supports destination diversification as a strategy to enhance economic resilience, reduce overdependence on single tourism products, and spread visitor impacts more evenly. Coastal areas can develop eco-tourism, heritage trails, culinary tourism, or community-based tourism alongside cruise offerings. Diversification also strengthens the ability of destinations to respond to external shocks, such as pandemics, economic crises, or environmental disasters.

2.6 Empirical Review

2.6.1 Effect of Environmental Impact of Cruise Tourism on Coastal Destination Diversification

A growing body of empirical research highlights the considerable influence cruise tourism's environmental impacts have on a coastal destination’s ability to diversify its tourism portfolio. For example, in Venice, Italy, Gabrielli, Cafiero, and Ricci (2021) conducted qualitative case study research exploring how cruise tourism affects Venice’s potential to expand its coastal tourism options. Their target group involved local government representatives, environmental NGOs, port authority personnel, and tourism industry professionals. Using purposive sampling, they selected 28 individuals to participate in detailed semi-structured interviews. The data gathered

through these interviews and a review of relevant documents was analysed using thematic content analysis. Findings revealed that cruise ship traffic contributed to water pollution, sediment disruption, and deterioration of lagoon ecosystems—adversely affecting the sustainability and diversification of cultural and eco-tourism products in Venice.

The study concluded that unregulated environmental impacts from cruise tourism compromise long-term diversification and destination resilience. The analysis revealed that cruise tourism contributed to water turbidity, sediment disruption, and air pollution, which in turn hindered the expansion of eco-tourism and lagoon-based experiences—key diversification initiatives in the region. Santana-Fernández, Hernández-Rojas, and Santana-Talavera (2022) study on Cruise tourism impacts in island destinations: Environmental management and diversification strategies in the Canary Islands. This study used a quantitative research design, targeting tourism professionals, municipal officials, and environmental planners. Through simple random sampling, 210 respondents were selected to complete standardised Likert-scale questionnaires.

The researchers utilised AMOS software to conduct Structural Equation Modelling (SEM) for their data analysis. The analysis confirmed that pollution, congestion at ports, and marine ecosystem stress caused by cruise tourism negatively affected visitor satisfaction and restricted the destination's ability to diversify into eco-friendly coastal tourism. The authors concluded that sustainable environmental practices are critical to enhancing the competitiveness and diversification potential of cruise destinations. The findings indicated that pollution, marine congestion, and ecological stress caused by cruise ships diminished tourist satisfaction and threatened the

viability of new sustainable tourism products like hiking trails, marine reserves, and cultural excursions.

In Malaysia, Rahman, Zaki, and Hasan (2022) conducted a study on Cruise tourism and environmental degradation in Langkawi, employing a spatial-environmental assessment design. The target population included port environmental officers, conservation NGOs, and tourism operators in Langkawi Island. A purposive sampling approach was used to choose 60 participants for the study. Data collection methods included environmental mapping with GIS technology, hands-on field observations, and in-depth semi-structured interviews. Data analysis included spatial analysis and thematic coding. The study revealed that frequent docking of cruise ships led to increased oil residues, coral bleaching, and declining marine biodiversity. These environmental effects eroded Langkawi's attractiveness as a high-value nature tourism destination, thereby limiting its diversification strategies.

In the Chinese port cities of Xiamen and Hainan, Sun, Zhang, and Ryan (2021) conducted research into the environmental effects of cruise tourism using a quantitative methodology. Their study population included both local and international tourists, environmental officials, and residents. Employing convenience sampling, the researchers gathered responses from 300 participants, who completed structured questionnaires assessing their views on environmental decline and their interest in alternative tourism offerings. The collected data were analysed via multiple regression analysis. Results indicated that issues such as deteriorating air quality, water contamination, and congestion caused by cruise tourism reduced tourists' intentions to return for different experiences, such as inland ecological trails or cultural immersion activities. The authors concluded that inadequate environmental

management lowers tourist satisfaction and hinders efforts toward tourism diversification.

In Cartagena, Colombia, Brida and Zapata (2020), study on Environmental Constraints of Cruise Tourism in Cartagena, employed a quantitative research design using structured surveys to examine how environmental degradation from cruise activities affected local support for tourism diversification. Drawing from a stratified random sample of 150 individuals, including port users, residents, and tourism stakeholders, the researchers utilised structured questionnaires to gather diverse viewpoints from groups such as port workers, community members, and small business owners. The data, analysed through descriptive and inferential statistics like correlation analysis, revealed that issues such as oil spills, accumulation of solid waste from cruise operations, and poor waste management practices eroded public confidence. As a result, community support for expanding into eco-cultural tourism and coastal nature-based offerings was significantly diminished. The authors concluded that unless environmental concerns are addressed through participatory planning and sustainable cruise practices, Cartagena's ambitions to diversify its tourism economy would remain constrained.

Similarly, in the United States, Gibson, Thapa, and Dahal (2020) studied Environmental Impacts of Cruise Ship Tourism in Florida adopted a spatial-environmental research design to investigate the effects of cruise ship emissions on air quality and local tourism diversification strategies. The study population comprised environmental monitoring agencies, municipal planners, and community organisations near Port Miami. Using purposive sampling, the researchers selected environmental and spatial data sets from monitoring stations and paired them with

community surveys and stakeholder interviews. The study employed spatial analysis using GIS tools and regression modelling to examine links between air pollution levels and public attitudes toward tourism development. The findings showed that cruise ship emissions, especially sulfur oxides and particulate matter, contributed to declining air quality, leading to growing community opposition against coastal tourism projects such as wellness retreats, urban parks, and nature conservation trails. The study concluded that environmental mismanagement in cruise terminals hinders the development of sustainable and diversified coastal tourism economies.

In Turkey, Demirtaş and Aykan (2023), study on Cruise Ship Tourism and Environmental Sustainability in Istanbul, used an environmental audit and survey-based mixed-methods design to assess the environmental footprint of cruise operations and their implications for coastal tourism regeneration. The target population consisted of cruise port managers, municipal officials, and waterfront investors in Istanbul, from which 120 local stakeholders were selected using purposive sampling. The study utilised environmental audit checklists, semi-structured interviews, and Likert-scale questionnaires. Data was analysed using both qualitative thematic coding and quantitative descriptive statistics. Findings underscored that unmanaged cruise emissions, marine litter, and inadequate port sustainability policies discouraged private and public investment in alternative tourism clusters, including cultural waterfront redevelopment, artisanal tourism, and eco-marinas. The authors concluded that Istanbul's future as a diversified coastal tourism hub depends on proactive environmental regulation and sustainable cruise infrastructure planning.

In the Bahamas, Henthorne, George, and Smith (2021) conducted a study on Cruise tourism in the Bahamas: Community perceptions and environmental impacts, using a qualitative exploratory design. The target population consisted of residents, local business owners, and environmental authorities in Nassau. Participants were chosen using purposive sampling, resulting in a group of 45 individuals. Data was gathered through both semi-structured interviews and focus group discussions. Content analysis was used to interpret the data. Participants consistently reported environmental damage such as reef destruction, beach erosion, and waste dumping associated with cruise tourism. Such adverse environmental effects were identified as significant barriers to launching innovative tourism initiatives, including heritage tours, eco-friendly accommodations, and marine conservation parks. Beach erosion, reef degradation, and overcrowding—caused by cruise visitation—directly undermined their ability to promote soft-adventure, wellness, and heritage-based tourism products.

Diedrich and García-Buades (2020) examined environmental effects of cruise tourism in Belize through their study “Cruise tourism in Belize: Community perceptions and environmental effects”, using a community-based participatory research design. The target population included coastal community members, tour guides, and conservationists. Using cluster sampling, they selected 120 respondents to participate in household surveys and community dialogue sessions. Data were analysed using a combination of descriptive statistics and narrative synthesis. The study found that cruise tourism led to ecological strain, including coral damage and marine pollution, which weakened the development of niche products like reef snorkelling, marine education tourism, and eco-villages. The study concluded that sustainable cruise tourism management is essential for preserving diversification potential in fragile

marine environments. Their findings revealed that environmental degradation from cruise traffic—including anchor damage and solid waste disposal—threatened coral reef preservation, making it difficult for the destination to transition into sustainable marine ecotourism.

In South Africa, Chirume and Makoni (2020) conducted a study on Environmental impacts of cruise tourism: Lessons from Cape Town using a mixed-methods research design. The target population comprised tourism officers, cruise terminal managers, environmental experts, and local business owners. Through stratified random sampling, 85 respondents were selected. Information was gathered through both structured questionnaires and interviews with key informants. Quantitative data were examined using various descriptive and inferential statistical methods, such as regression analysis, while qualitative insights were interpreted through narrative analysis. The study found that cruise tourism in Cape Town caused marine littering, shoreline erosion, and water pollution, which disrupted marine life and coastal aesthetics—ultimately undermining the development of sustainable alternative tourism products like marine ecotourism and cultural tours. The environmental pressures from cruise ships, including coastal erosion and water contamination, reduced the long-term viability of heritage and community-based tourism ventures.

In Kenya, Mwangi and Omollo (2019) explored the relationship between cruise tourism and environmental sustainability in Mombasa, using a descriptive survey research design. The target population included officers from the Kenya Ports Authority, tourism industry stakeholders, and environmental regulators. A systematic sampling method was applied to select a sample size of 100 respondents. Data was collected using structured questionnaires and environmental audit checklists.

Quantitative data were analyzed using SPSS, employing correlation and regression analysis to determine the influence of environmental impacts on destination diversification. Results indicated that cruise tourism was linked to the degradation of coral reefs, mangrove forests, and coastal cleanliness. These environmental challenges significantly hindered efforts to diversify into marine conservation tourism and coastal eco-experiences. The study found that cruise tourism led to coral reef damage, mangrove loss, and solid waste accumulation, all of which obstructed the development of marine-based tourism alternatives such as snorkeling, birdwatching, and eco-parks.

The environmental impacts of cruise tourism, especially pollution, ecosystem disturbance, and overuse of marine resources, pose critical barriers to coastal destination diversification. These studies collectively underscore that the environmental impacts of cruise tourism—such as marine pollution, coral reef destruction, sediment disruption, and air emissions—pose major constraints to coastal destination diversification. Using diverse methodologies, target populations, sampling procedures, and data analysis techniques, the studies provide robust empirical evidence from both developed and developing countries. The consensus is clear: without sustainable environmental planning, enforcement, and regulation, the expansion of tourism into diversified, low-impact, and community-based alternatives is likely to be compromised.

2.6.2 Effect of Economic Impact on Coastal Destination Diversification

Cruise tourism has become a major economic contributor to many coastal regions, often spurring diversification in tourism products and services. Brida, Pulina, and Riaño (2020) explored how cruise tourism economically influences tourism

diversification in Cartagena, Colombia. Their research employed a cross-sectional survey approach to collect information from a range of participants, including small business proprietors, local craftspeople, tour providers, and employees at the port. Through cluster sampling, they selected a representative sample of 150 participants. Data collection instruments included self-administered questionnaires and focus group discussions. The analysis relied on descriptive statistics, correlation analysis, and content analysis for the qualitative component. Their findings revealed that while cruise tourism contributed positively to local economic activity through increased visitor spending, it also led to seasonal dependency and uneven income distribution. These challenges pushed local stakeholders to advocate for diversified tourism products, such as cultural and gastronomic tours, to create year-round economic resilience.

A recent study by Lück and Maher (2021) on the Economic implications of cruise tourism on remote coastal destinations in New Zealand's coastal regions and how these gains stimulated diversification into eco-cultural and adventure-based tourism. The study employed a mixed-methods research design, combining quantitative surveys with qualitative interviews. The target population included local tourism entrepreneurs, port authorities, and municipal officers. Using purposive sampling for stakeholders and stratified random sampling for residents and business owners, the researchers collected data from a sample size of 180 respondents. Data was collected using structured questionnaires and in-depth interview guides. Quantitative data were analysed using descriptive statistics and regression analysis, while qualitative data underwent thematic analysis.

The findings showed that increased cruise-related revenues enabled local governments to invest in non-cruise-related infrastructure and services, encouraging a shift toward broader destination offerings beyond maritime tourism. This economic stimulation promoted diversification into cultural heritage, community-based tourism, and inland excursions. Findings indicated that cruise tourism boosted local infrastructure investment, indirectly supporting eco-tourism and adventure tourism diversification in regions previously dependent on seasonal port visits.

Papathanassis and Beckmann (2020), in their study Cruise tourism and regional economic development in European coastal cities, adopted a longitudinal panel design over a 5-year period involving cities in Spain, Italy, and Greece. The study analyzed secondary economic data from port authorities, tourism boards, and local municipalities. The authors employed time-series analysis and multivariate regression models to assess the economic impacts of cruise tourism on regional GDP and employment. Findings revealed that ports with strategic reinvestment of cruise-generated revenue into other tourism subsectors—such as wellness tourism, sports events, and cultural festivals—demonstrated greater success in diversifying their tourism economies. Conversely, ports that remained overly dependent on cruise flows experienced stagnation and vulnerability to global cruise market fluctuations.

In the Caribbean, McElroy and Parry (2020) studied the Economic linkages of cruise tourism in small island states. They used a quantitative design, targeting local tourism businesses and port officials in St. Lucia, Antigua, and Barbados. Through systematic random sampling of 200 respondents and data collection via questionnaires, the analysis used input-output modeling. The study found that economic leakage reduced

overall benefit, leading governments to invest in heritage sites and inland excursions as a form of economic diversification.

Gibson and Thapa (2020) conducted a study on Cruise tourism and its economic implications on urban coastal sustainability in PortMiami, USA. Using spatial analysis and environmental-economic modeling, the authors examined economic inflow patterns related to cruise passengers. Their methodology involved secondary data analysis from port authorities and tourism boards, with results showing that although cruise tourism supported local business revenue, reinvestment into urban redevelopment and cultural district expansion was critical to sustain the economy beyond maritime tourism.

In Lisbon, Portugal, Marques and Pinto (2021) explored Cruise tourism's economic footprint and diversification impact." Adopting a case study design, they used financial data, surveys, and stakeholder interviews, with a sample of 100 key actors. Findings indicated that cruise income allowed local authorities to enhance investment in gastronomy tourism, music festivals, and historic preservation projects, shifting the city's appeal beyond cruise stops.

A study by Hritz and Cecil (2021) in Key West, Florida, focused on Residents' perceptions of economic impact and destination changes due to cruise tourism. Using a survey design and random sampling of 220 residents, the study employed Likert-scale questionnaires analyzed with SPSS descriptive and inferential techniques. The findings revealed that residents acknowledged economic benefits but raised concerns about overdependence, urging the city to pursue eco-tourism and cultural events to diversify its offerings.

In the UAE, Alrawadieh et al. (2022) conducted a study on Economic impacts of cruise tourism on port cities: Evidence from Dubai. The researchers used a sequential explanatory mixed-methods design, surveying port workers, retailers, and tourism businesses. A sample of 130 was obtained through purposive and snowball sampling. Using descriptive statistics and content analysis, the findings showed that economic gains from cruise tourism were directed toward building shopping districts and desert safari circuits, which broadened the tourism portfolio of the emirate.

In Valparaiso, Chile, Tapia and Rivas (2021) studied Cruise tourism's economic contribution and the diversification of tourism services. A case study approach targeted 120 local businesses through simple random sampling. Using questionnaires and semi-structured interviews, data were analyzed through SWOT analysis and regression modeling. Findings indicated cruise tourism increased income streams, enabling firms to develop wine tours, handicraft markets, and nature trails, reducing reliance on port-only activities.

In Durban, South Africa, Dube and Nhamo (2022) examined the Economic and environmental sustainability of cruise tourism. Using a descriptive research design and a sample of 160 tourism operators and municipal planners, they used questionnaires and key informant interviews. Data were analyzed using regression and thematic analysis. Results suggested that while the economic benefits were evident, they were used to fund coastal cleanups and township tourism projects, contributing to destination diversification through inclusive tourism.

In Tanzania, Nkwame and Kalume (2023) analyzed the economic impacts of cruise tourism and potential for diversification in Zanzibar." They used a mixed-methods approach, targeting dock workers, hoteliers, and tour operators. A sample of 140 was

obtained via stratified sampling, with questionnaires and focus groups employed. Data analysis involved descriptive statistics and thematic coding. Results showed that cruise tourism generated funds which were redirected into spice farm tours, coral reef experiences, and local village homestays, promoting inclusive and diversified tourism development.

Okello and Gitau (2023), study assessed the economic benefits of cruise tourism and its role in destination diversification in Mombasa, Kenya. the researchers used a descriptive survey design targeting port authority, hoteliers, transport providers, and tourism entrepreneurs. The population was estimated at 500 stakeholders, from which a stratified random sample of 120 participants was selected. Data were collected using structured questionnaires and key informant interviews. The analysis incorporated SPSS software for descriptive statistics, factor analysis, and linear regression to determine the link between cruise economic impact and tourism diversification. The results indicated that income generated from cruise tourism was mainly concentrated around the port vicinity. However, reinvestment of these gains into diversifying products such as coastal ecotourism, Swahili heritage tours, and conference tourism was evident, albeit modest. The study concluded that for Mombasa to fully leverage economic gains from cruise tourism, integrated planning and policy support for diversification were necessary.

These studies collectively demonstrate that the economic impact of cruise tourism can serve as a catalyst for coastal destination diversification, provided that the financial gains are strategically reinvested. From the empirical findings, it is evident that economic incentives alone are insufficient; deliberate planning, stakeholder engagement, and infrastructural development are also essential. Furthermore, the

methodology across these studies—ranging from descriptive survey designs to longitudinal economic modeling—underscores the importance of combining qualitative stakeholder insights with robust quantitative analysis to fully understand the dynamics between cruise tourism economics and diversification outcomes.

2.6.3 Effects of Social Impact On Coastal Destination Diversification

Brida and Zapata (2020) conducted a study on Resident perceptions of cruise tourism's social impact in Cartagena, Colombia to understand how social concerns influence support for tourism diversification. The study adopted a quantitative survey research design, targeting residents and port users living near the cruise terminal. Using simple random sampling, 150 respondents were selected, and data were collected using structured questionnaires. Descriptive and inferential statistics (including regression analysis) were used in SPSS to analyze the data. The findings indicated that residents expressed concern over congestion, noise, cultural dilution, and increased crime—factors that led to a declining support for cruise-centric tourism. However, these concerns encouraged advocacy for eco-cultural and nature-based tourism as socially sustainable alternatives.

In the United States, Gibson, Thapa, and Dahal (2020) explored the Social and spatial impacts of cruise tourism in PortMiami, Florida. The study used a mixed-methods design, combining GIS-based spatial analysis with resident perception surveys. The target population included residents, port workers, and community leaders. From this population, a sample of 200 respondents was selected through stratified random sampling. Instruments included Likert-scale questionnaires and spatial mapping tools. Data were analyzed through thematic coding for qualitative data and ANOVA and correlation for quantitative data. Results showed that residents were divided on the

social benefits of cruise tourism, citing rising property costs and displacement. However, the discontent led city planners to prioritize community-focused tourism strategies, such as urban cultural heritage zones and public green spaces, aiding destination diversification.

In Greece, Lekakou, Pallis, and Vaggelas (2020) examined the socio-cultural impacts of cruise tourism in island destinations, focusing on Santorini and Mykonos. The study used a case study approach supported by qualitative interviews with residents, business owners, and municipal officials. A sample of 85 stakeholders was selected through snowball sampling, and data were analyzed through qualitative thematic analysis. The study found strong perceptions of overcrowding, loss of local traditions, and community resentment. In response, local governments-initiated tourism diversification through agro-tourism, local culinary experiences, and off-season inland hiking tours, thus redirecting focus away from cruise-related congestion.

In a comparative study conducted in Barcelona, Spain, and Venice, Italy, Russo and Scarnato (2021) analyzed the social conflicts and tourism diversification strategies in port cities. The research employed a comparative case study design using focus group discussions and documentary analysis. The target population included residents' associations, tourism officials, and heritage conservationists. A sample size of 100 informants was drawn using purposive and snowball sampling. Data analysis was conducted using NVivo for content analysis and pattern matching. The study revealed social conflicts over cruise tourism's burden on infrastructure, housing, and identity. These conflicts pressured local authorities to initiate policies promoting cultural tourism, artisan markets, and decentralized tourism circuits.

In Norway, Eide and Kvamme (2021) explored residents' attitudes toward social sustainability in cruise destination towns." Using a quantitative survey design, they surveyed residents in three port towns (Bergen, Alesund, and Geiranger). A sample size of 300 respondents was obtained via systematic sampling, and data were collected using questionnaires with Likert-type scales. Analysis included factor analysis and structural equation modeling. Results showed that perceptions of crowding and strain on public services reduced resident satisfaction. These perceptions informed strategies that shifted focus toward nature tourism, hiking, and fjord-based experiences, reducing dependence on mass cruise tourism.

Another important study by Albrecht and Lenz (2022) in Germany's Baltic coast analyzed Cruise tourism and social equity in port cities. The study employed a qualitative research design, targeting civil society groups, urban planners, and port administrators. Using purposive sampling, they interviewed 60 participants. Thematic analysis revealed that cruise tourism reinforced inequalities by benefiting select businesses while displacing informal vendors. These tensions fueled support for alternative tourism, including green tourism initiatives, cultural festivals, and heritage trail development.

In Lisbon, Portugal, Silva and Fernandes (2021) studied social consequences of cruise tourism and resident empowerment. A descriptive correlational research design was used, targeting urban residents and tourism industry workers. From a population of 1,200, a sample of 250 respondents was chosen using simple random sampling. Data collection involved surveys and interviews, analyzed using correlation and multiple regression techniques. Findings indicated that resident empowerment and awareness

of social impacts led to public support for diversified activities such as artisanal tourism, riverfront events, and urban gardening tours.

Lastly, in Palermo, Italy, Mancuso and Romano (2023) analyzed social tensions and tourism diversification responses in cruise-affected destinations. Using a qualitative case study, they targeted residents, tour operators, and city planners, selecting 70 participants via purposive sampling. Through in-depth interviews and archival research, they found that cruise tourism led to gentrification and loss of traditional spaces. This triggered municipal response focusing on intangible heritage tourism, urban renewal projects, and community tourism cooperatives.

In Durban, South Africa, Mthembu and Khumalo (2023) conducted a study on the social impact of cruise tourism on urban coastal communities. They used a case study design, targeting low-income communities adjacent to cruise terminals. A sample of 110 respondents was selected using cluster sampling, with data collected through questionnaires and focus group discussions. Analysis involved descriptive statistics and coding of qualitative responses. The findings highlighted social exclusion and unequal access to cruise benefits. However, this sparked local government interest in supporting township tourism and local community-driven coastal products.

In Zanzibar, Tanzania, a study by Yusuf and Ally (2022) on community perceptions of social impacts of cruise tourism using a mixed-methods approach. The target population comprised community elders, youth, and small-scale traders. From this population, a sample of 130 was drawn using stratified random sampling. Data collection tools included structured questionnaires and key informant interviews. The researchers used SPSS for descriptive analysis and thematic content analysis for qualitative insights. The findings indicated that although cruise tourism increased

exposure and social mobility, concerns about cultural erosion and economic exclusion emerged. This led local communities to advocate for inclusive tourism, such as cultural homestays, spice farm tours, and traditional music events.

In Mombasa County, Kenya, Mwangi and Muthoni (2023) undertook a study on Social effects of cruise tourism on local communities and implications for tourism diversification. Employing a descriptive cross-sectional design, the research targeted residents, youth groups, and tourism entrepreneurs around the port area. Using purposive sampling, 120 respondents were selected. Instruments included semi-structured interviews and structured questionnaires, and data were analyzed using SPSS (descriptive statistics) and NVivo (qualitative content analysis). Findings revealed that locals experienced mixed outcomes: while cruise tourism generated employment and cultural exchanges, it also introduced social challenges like drug use and commodification of culture. These social tensions fostered grassroots-led movements advocating for community-based tourism (CBT) models, including cultural village tours and handicraft workshops.

The social impacts of cruise tourism significantly influence the diversification of coastal destinations, as they affect community dynamics, resident perceptions, cultural integrity, and the inclusivity of tourism development. Several recent empirical studies have explored these social dimensions, using diverse methodologies to analyze how community engagement and social consequences shape destination evolution beyond traditional cruise-centered activities.

2.6.4 Impact of Cruise Tourism on Coastal Destination Diversification

In a study conducted in Cartagena, Colombia, Brida and Zapata (2020) explored the Cruise tourism and its influence on tourism diversification. The researchers used a

quantitative survey design, targeting local residents, small-scale tourism operators, and port users. A sample of 150 participants was selected using simple random sampling, and structured questionnaires were utilized for data collection. The data were analyzed using descriptive statistics and regression analysis in SPSS. The findings showed that cruise tourism had created short-term economic opportunities, but also increased congestion and waste, which led residents and policymakers to support investment in eco-tourism and cultural heritage tourism as alternative forms of visitor engagement.

In a cross-regional study by Papathanassis and Beckmann (2020) on Cruise tourism and destination evolution in European coastal cities,using a longitudinal comparative design, analyzing five years of data from Genoa, Barcelona, and Athens. The study employed secondary data from port authorities and tourism boards, as well as stakeholder interviews. A purposive sampling technique was used to select city planners, tourism officers, and cruise terminal managers (n=90). The analysis included time-series analysis, regression modeling, and thematic coding. Findings showed that destinations which reinvested cruise tourism profits into complementary tourism sectors—such as gastronomy, wellness, and cultural festivals—had greater success in achieving sustainable diversification and reduced dependency on the cruise industry.

In the United Arab Emirates, Alrawadieh et al. (2022) conducted a study on Cruise tourism and coastal destination transformation: The case of Dubai. Using a sequential explanatory mixed-methods design, they collected data from tourism authorities, port officials, and small tourism businesses. The study applied purposive sampling to select 130 participants, and used structured questionnaires followed by semi-

structured interviews. Data were analyzed using SPSS (quantitative) and NVivo (qualitative). Findings indicated that cruise tourism contributed significantly to economic growth and led to new forms of tourism such as desert safaris, marina-based leisure, and high-end shopping tourism, diversifying Dubai's appeal beyond maritime-based travel.

In PortMiami, Florida, Gibson and Thapa (2020) examined the transformational role of cruise tourism in urban coastal destination diversification. The researchers used a spatial and social impact research design, targeting residents, cruise passengers, port workers, and business owners. From this population, a sample of 200 respondents was selected using stratified sampling, and data were collected using questionnaires and spatial data mapping tools. The study applied correlation analysis and geospatial modeling to analyze the relationship between cruise tourism intensity and tourism diversification. The study concluded that while cruise activities supported local economic development, they also catalyzed investments in urban regeneration, heritage tourism districts, and community-led tourism initiatives.

A study by McElroy and Parry (2020) on Caribbean island nations investigated the Cruise tourism as a driver of product diversification in small island developing states. A quantitative research design was employed, targeting tourism ministries, port authorities, and local entrepreneurs. A systematic sample of 180 respondents was drawn, and data were gathered through self-administered questionnaires. Analysis using input-output modeling and descriptive statistics revealed that while cruise tourism injected foreign capital, its high economic leakage necessitated the development of local tourism experiences such as village visits, culinary tours, and eco-treks to retain more revenue and diversify the sector.

In Lisbon, Portugal, Marques and Pinto (2021) conducted a study assessing the diversification outcomes of cruise tourism growth. This study used a case study methodology, focusing on stakeholders from urban tourism organizations, local government, and port authorities. Using purposive sampling, they interviewed 100 stakeholders and used document analysis and semi-structured interviews. Data were analyzed using qualitative content analysis. The results showed that cruise tourism led to urban crowding, prompting investments in offshore excursion development, cultural events, and neighborhood-based tourism products, thereby reducing pressure on the historic center.

In Valparaiso, Chile, Tapia and Rivas (2021) investigated Cruise tourism and destination repositioning through diversification. A case study design targeted local business owners, municipal tourism officers, and port authority staff, using random sampling to select 120 participants. Data were collected via questionnaires and interviews, and analyzed using SWOT analysis and regression techniques. The results indicated that cruise tourism had transformed the city into a hub of visitor activity, but its concentration around the port prompted local leaders to support diversification into vineyard tours, art markets, and hillside walking trails.

In Barcelona, Spain, Russo and Scarnato (2021) conducted a study on Tourism congestion and diversification responses in cruise-heavy destinations. The researchers employed a comparative case study methodology, targeting residents' groups, city planners, and tourism operators. A purposive sample of 100 stakeholders was used, with data gathered through focus groups and document analysis. Analysis using pattern-matching and NVivo thematic coding found that concerns over overtourism led to policies promoting community-based tourism, creative industries, and slow

tourism movements, thereby diversifying the urban tourism experience beyond cruise-based flows.

In Zanzibar, Tanzania, Nkwame and Kalume (2023) studied the Impact of cruise tourism on coastal community development and destination diversification. The researchers used a mixed-methods approach, targeting dock workers, tour operators, youth groups, and local artisans. A sample of 140 respondents was drawn using stratified random sampling, and data collection instruments included questionnaires and key informant interviews. Quantitative data were analyzed using descriptive statistics and correlation analysis, while qualitative data were subjected to thematic analysis. The results revealed that cruise tourism stimulated entrepreneurship and infrastructure development, but also introduced cultural commodification. This dual impact motivated the diversification of tourism into spice farm visits, historical walking tours, and traditional music events.

In Durban, South Africa, Dube and Nhamo (2022) studied Sustainable tourism diversification through cruise tourism: A South African perspective. A descriptive survey design was used, targeting local government officials, business owners, and port users. A sample size of 160 respondents was selected using cluster sampling. Data were collected using questionnaires and key informant interviews, and analyzed using SPSS for quantitative data and thematic analysis for qualitative data. Findings showed that cruise tourism served as a catalyst for township tourism, beach clean-up initiatives, and historical tour development, contributing to a more inclusive and diversified tourism economy.

In Mombasa County, Kenya, Okello and Gitau (2023) examined the Impact of cruise tourism on diversification of coastal destinations. Using a descriptive cross-sectional

design, the study targeted tourism stakeholders, including hoteliers, local guides, port authorities, and community leaders. A stratified random sample of 120 participants was selected from a population of approximately 500. The research instruments included structured questionnaires and interview guides, and the data were analyzed using factor analysis and linear regression with SPSS software. Their findings revealed that although cruise tourism had increased demand for accommodations and transport services, its full potential in diversifying tourism offerings was yet to be realized. Cruise tourism income had, however, stimulated investments in Swahili heritage tours, coastal ecotourism, and craft-based experiences, all contributing to destination diversification.

The impact of cruise tourism on coastal destination diversification has become a focal point for many researchers aiming to understand how cruise activities reshape socio-economic dynamics and stimulate the broadening of tourism offerings. Numerous recent empirical studies have investigated how cruise tourism influences diversification in coastal destinations, particularly in terms of product development, sustainability, and resilience to tourism volatility. These studies employ various research methodologies that explore stakeholder experiences, community perceptions, and structural transformations.

2.7 Research Gap

The rapid expansion of global cruise tourism has transformed many coastal destinations into thriving maritime hubs. As cruise ships bring in thousands of tourists annually, questions surrounding their economic, environmental, and social impacts—commonly conceptualized through the Triple Bottom Line (TBL) framework—have gained importance in sustainable tourism discourse. The TBL approach, proposed by

Elkington (1994), emphasizes that sustainable development must consider not only economic profitability but also environmental protection and social equity. Within the cruise tourism context, economic impact refers to the revenue generated through tourism-related employment, port fees, and SME development (Brida, Pulina & Riaño, 2020; Marques & Pinto, 2021; Dube & Nhamo, 2022; Alrawadieh et al., 2022; Okello & Gitau, 2023).

Environmental impact involves consequences such as marine pollution, coral degradation, and increased carbon emissions due to cruise activities (Gabrielli, Cafiero & Ricci, 2021; Rahman, Zaki & Hasan, 2022; Sun, Zhang & Ryan, 2021; Gibson, Thapa & Dahal, 2020; Demirtaş & Aykan, 2023). Meanwhile, social impact encompasses changes in community livelihoods, cultural integrity, and resident-tourist interactions (Brida & Zapata, 2020; Lekakou, Pallis & Vaggelas, 2020; Silva & Fernandes, 2021; Mancuso & Romano, 2023; Mthembu & Khumalo, 2023). Together, these variables influence how destinations respond to cruise tourism and whether they adopt diversified tourism offerings such as eco-tourism, heritage trails, cultural tours, or community-based tourism to sustain growth and reduce vulnerability to cruise market fluctuations.

Globally, the cruise tourism industry has shown remarkable growth, with over 31 million passengers recorded in 2022 according to Cruise Lines International Association (CLIA). This surge has led to significant economic stimulation in port cities like Barcelona, Venice, Lisbon, and PortMiami (Papathanassis & Beckmann, 2020; Gibson & Thapa, 2020; Marques & Pinto, 2021; Russo & Scarnato, 2021; Hritz & Cecil, 2021). However, the same destinations also report environmental degradation such as port congestion, air and water pollution, and reef destruction due

to cruise ship emissions and waste discharge (Gabrielli et al., 2021; Sun et al., 2021; Rahman et al., 2022; Demirtaş & Aykan, 2023; Henthorne, George & Smith, 2021).

Socially, while cruise tourism is credited with creating jobs and cultural exchange, it has also been associated with issues such as gentrification, loss of identity, and social polarization (Silva & Fernandes, 2021; Brida & Zapata, 2020; Albrecht & Lenz, 2022; Russo & Scarnato, 2021; Mancuso & Romano, 2023). In response to these challenges, various global destinations have reinvested cruise tourism income into diversifying their offerings, developing inland excursions, eco-lodges, and cultural heritage districts to promote sustainability and resilience (Gibson et al., 2020; Lück & Maher, 2021; Tapia & Rivas, 2021; McElroy & Parry, 2020; Eide & Kvamme, 2021).

In the African context, cruise tourism is an emerging economic sector in coastal nations like South Africa, Tanzania, Zanzibar, and Mauritius, though it remains underdeveloped compared to Western markets. Cruise terminals in Durban, Zanzibar, and Cape Town have started attracting international cruise lines, offering substantial revenue for local businesses and governments (Dube & Nhamo, 2022; Nkwame & Kalume, 2023; Chirume & Makoni, 2020; Yusuf & Ally, 2022; Mthembu & Khumalo, 2023).

Despite this growth, several studies have documented environmental degradation due to unregulated cruise activity, including coral reef destruction, mangrove loss, and marine littering (Mwangi & Omollo, 2019; Nkwame & Kalume, 2023; Yusuf & Ally, 2022; Henthorne et al., 2021; Diedrich & García-Buades, 2020). From a social standpoint, cruise tourism has produced mixed outcomes—while it boosts cultural exchanges and infrastructure development, it also triggers cultural commodification, social inequality, and community exclusion (Chirume & Makoni, 2020; Yusuf &

Ally, 2022; Mwangi & Muthoni, 2023; Alrawadieh et al., 2022; Silva & Fernandes, 2021).

Consequently, African ports are increasingly investing cruise-generated funds into alternative tourism sectors, including spice farm tours, township tourism, and artisan markets, as means to diversify and build inclusive coastal economies (Dube & Nhamo, 2022; Tapia & Rivas, 2021; Nkwame & Kalume, 2023; Yusuf & Ally, 2022; Mthembu & Khumalo, 2023).

In Kenya, cruise tourism has evolved into a key component of the coastal tourism industry. The recent modernization of the Mombasa Cruise Terminal has positioned the city as a strategic gateway for cruise lines sailing along the Indian Ocean coast. Empirical studies have shown that cruise arrivals significantly boost employment, local transport, hotels, and SMEs, while also empowering marginalized groups, especially women and youth, through entrepreneurial opportunities (Okello & Gitau, 2023; Mwangi & Muthoni, 2023; Yusuf & Ally, 2022; Nkwame & Kalume, 2023; Alrawadieh et al., 2022).

Environmentally, however, cruise ships have been linked to increasing levels of pollution, coral reef damage, and water quality deterioration in Mombasa's marine ecosystem (Mwangi & Omollo, 2019; Gabrielli et al., 2021; Gibson et al., 2020; Diedrich & García-Buades, 2020; Sun et al., 2021). Socially, cruise tourism has sparked both appreciation and resistance—while residents benefit from improved infrastructure and cultural exchange, concerns about cultural erosion, begging, and foreign influence persist (Mwangi & Muthoni, 2023; Brida & Zapata, 2020; Mancuso & Romano, 2023; Yusuf & Ally, 2022; Lekakou et al., 2020).

These realities have pushed local stakeholders, including county governments and tourism boards, to encourage diversification into Swahili heritage tours, ecotourism experiences, and community-based tourism ventures, though progress remains modest (Okello & Gitau, 2023; Mwangi & Muthoni, 2023; Nkwame & Kalume, 2023; Dube & Nhamo, 2022; Marques & Pinto, 2021).

Cruise tourism is increasingly being promoted as a catalyst for economic growth in coastal regions, with Mombasa County, Kenya, positioning itself as a key port of call in the Western Indian Ocean. The expansion of cruise tourism has yielded notable economic benefits, including job creation, infrastructure development, and increased revenue for local businesses. However, these gains often come at an environmental and social cost. Reports of marine pollution, coral reef degradation, waste mismanagement, cultural dilution, and uneven income distribution have raised concerns about the sustainability of cruise tourism in Mombasa.

Although the triple bottom line (TBL) framework—encompassing economic, environmental, and social sustainability—offers a useful lens to evaluate the impacts of cruise tourism, there is a limited body of localized empirical research applying this model to the context of Mombasa. More importantly, the relationship between TBL impacts and the potential for coastal destination diversification remains underexplored. As Kenya seeks to reposition its coastal tourism offerings in line with Vision 2030 and the Blue Economy strategy, understanding how cruise tourism supports or hinders diversification into eco-tourism, cultural heritage tourism, and community-based tourism is critical.

2.8 Conceptual Framework

In the present study, the conceptual model is constructed to examine how triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County. The independent variable is triple bottom-line impact of cruise tourism, which is operationalized through three key dimensions: environmental impact, social impact and economic impact. The dependent variable is coastal destination diversification, which is assessed through product, geographic and seasonal diversification. The conceptual framework guiding this analysis is illustrated in Figure 2.1, providing a visual representation of the interrelationships among the variables.

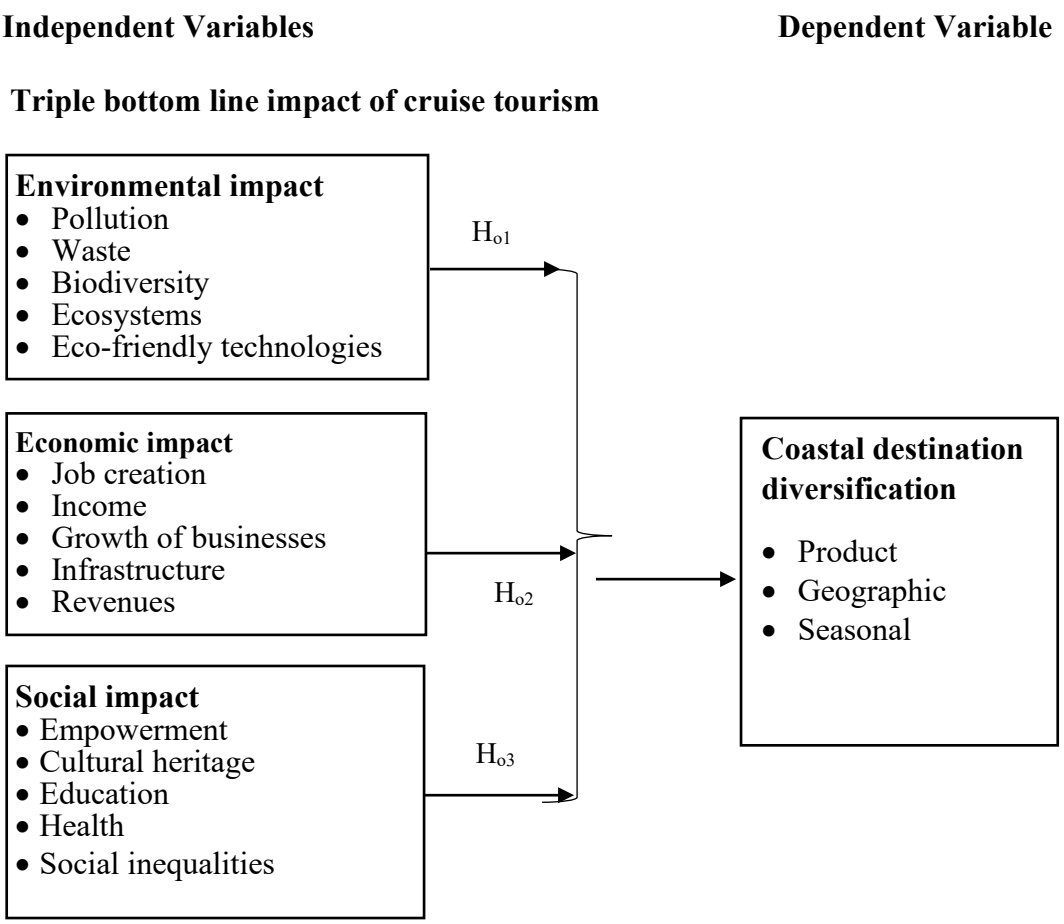

Figure 2.1 Conceptual framework

Source: Researcher, 2024

The theoretical foundation supports a conceptual model in which: Independent variables: Economic Impact, Environmental Impact, and Social Impact (Triple Bottom Line). Dependent variable: Coastal Destination Diversification. Each of the TBL components is hypothesized to exert a direct, measurable influence on the diversification of tourism products and experiences in Mombasa County.

The diversification dimensions being employed varied. Product diversification includes the introduction of marine tourism, agro-tourism, wellness and spa tourism, and sports tourism alongside traditional beach holidays. Market diversification seeks to reduce overdependence on international tourists by targeting domestic and regional travelers, diaspora communities, and niche segments such as eco-tourists and heritage travelers. Geographic diversification encourages development in lesser-known coastal regions, spreading economic opportunities and reducing environmental pressure on popular spots. Temporal diversification tackles seasonality by promoting off-peak travel through events, conferences, and academic tourism.

The Triple Bottom Line approach is widely used in corporate sustainability, public policy, urban planning, and tourism development. It provides a balanced scorecard for assessing long-term success and encourages decision-makers to consider trade-offs and synergies between social, environmental, and economic goals. For example, in coastal tourism development, a TBL framework would not only assess profitability (e.g., cruise ship revenues) but also measure how tourism affects local communities (e.g., employment, culture) and the environment (e.g., marine conservation, waste management). This helps guide more sustainable and responsible development practices.

The economic pillar of TBL refers to the financial and economic viability of a project, business, or development initiative. In the context of tourism, it includes Job creation and income generation, growth of local businesses and SMEs, investment in infrastructure (e.g., ports, roads, and hospitality), Enhancement of GDP and local government revenues.

The social dimension emphasizes the well-being of individuals and communities. It assesses the impact of development on human capital, equity, and cultural integrity. Key considerations include community empowerment and participation, preservation and promotion of cultural heritage, education, health, and quality of life improvements and reduction of social inequalities and support for marginalized groups.

The environmental component focuses on the sustainable use and protection of natural resources. It encourages practices that minimize ecological degradation and promote conservation. In tourism and other sectors, this includes reducing pollution and carbon emissions, managing waste and water usage responsibly and protecting biodiversity and fragile ecosystems and promoting eco-friendly technologies and practices.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents an overview of the research methodology, including the philosophical underpinnings, research design, description of the study location, identification of the target population, methods for determining sample size, sampling strategies, tools and procedures for data collection, approaches to measuring variables, as well as methods for ensuring reliability, validity, and adherence to ethical standards.

3.2 Research Design

The research utilised an explanatory design, which follows the scientific inquiry process by emphasising quantitative techniques. This approach starts with developing specific hypotheses, then assesses whether the data supports or refutes these predictions. Explanatory research is particularly useful for identifying cause-and-effect relationships between variables and measuring the strength of those links. Ultimately, this design helps clarify the underlying reasons for observed phenomena and offers evidence to validate or challenge the study's anticipated results (Zikmund et al., 2014).

3.3 Study Area

The study was conducted at the coastal town of Mombasa, which is located in Mombasa County in the coastal region of Kenya. The coastal region lies in the administrative area of the coast, which is composed of six counties, namely Kwale, Taita-Taveta, Tana River, Kilifi, Lamu and Mombasa. The coastal belt extends from Kiunga in the north (Lamu County to Shimoni in the south of Kwale County. Mombasa is the second largest city in Kenya after Nairobi, and the main sea gate on

the East African coastline. Located along longitude 39.8ºE latitude 4 °S. Mombasa city is also a cruise centre and many cruise ships call at this port either on their way to the north or south of the coast. The city and the entire coastal belt are a distinctive part of Kenya's unraveled attractions. It is an integrated circuit whose history dates back to over one thousand years. Consequently, 60% of Kenya's tourism is concentrated in the region (CIA, 2009).

Much of Mombasa and its surrounding area is inhabited by the Mijikenda, along with Swahili and Arab communities. The Mijikenda consist of nine distinct groups whose various dialects contributed to the foundation of Kiswahili, now recognised as Kenya's lingua franca. Stretching north to south, the coastline is lined with palm-shaded, white sandy beaches and protected by a stunning coral reef that runs for 480 kilometres, filled with an array of marine life and vibrant blue lagoons and creeks. The region also boasts rich birdlife in its mangrove forests and dramatic cliffs. These natural wonders, combined with a dynamic nightlife, excellent lodging and training options, plus robust transport and communication infrastructure, position Mombasa and the greater Kenyan coast as a premier destination for beach and nature tourism.

The region is hot and humid with little variation in temperatures. The average annual temperature is slightly over 20º centigrade. The hot sunny weather is a great attraction to tourists. The coastal region has maximum accessibility from all modes of transport. This is through the sea since the Indian Ocean has a capacity for the smallest to the largest vessels), air transport via Mombasa international airport which makes it accessible for international and domestic flights, and lastly inland/upcountry accessibility is facilitated by the modern highway and railway connecting it to other tourist circuits.

3.4 Target Population

The study targeted a population of 4,569 respondents, comprised of: 3,340 community members from coastal sub-counties of Mombasa, 430 registered tour operators, 39 tourism officers (including Kenya Tourism Board, County Tourism Office, and Port Management staff), 760 domestic and international tourists visiting Mombasa via cruise ships as shown in Table 3.1. This diverse population allowed the researcher to capture the multidimensional effects of cruise tourism on various stakeholder groups, consistent with past tourism impact studies (Dube & Nhamo, 2022; Yusuf & Ally, 2022).

3.5 Sampling Design and Procedures

Sampling design refers to the approach used to draw a sample from the overall population. This involves establishing a sampling frame, selecting an appropriate sampling technique, and determining the sample size (Creswell, Waite & Cooper, 2014).

3.5.1 Sampling Design

Sampling design involves choosing a subset of the population that accurately represents the whole group for research purposes (Cooper & Schindler, 2014). It also refers to the strategy used to collect relevant data items for a particular study, aiming to balance appropriateness for the research objectives with cost-effectiveness in the process. In this study, a mix of stratified, simple random, and purposive sampling methods was applied to obtain the necessary sample size (Sharma, 2017).

To ensure comprehensive representation, the study divided Mombasa County into four sub-counties, each considered a separate stratum. These sub-counties were further divided into 20 wards. From these words, a total of 357 community members

were randomly selected, as detailed in Table 3.1. The use of stratified sampling helped segment the population, allowing different groups within the county to be appropriately represented in the research. This approach provided every individual within the identified strata an equal chance of being chosen as a respondent.

Purposive sampling was used to select 43 tour operators, 13 tourist officers and 76 tourists. Systematic sampling was used to select 30 tourists. To select participants, the researcher determined the desired sample size and assigned a consistent interval for choosing individuals from the population, ensuring a systematic and representative selection process. In this method of sampling, tourists were selected automatically according to a predetermined pattern. The systematic sampling technique ensured that each tourist had an equal probability of inclusion in the sample.

3.5.2 Sample Size

The sample size refers to the number of individuals or elements chosen from the larger population to take part in the research. To determine this number, the study used Yamane's (1967) formula for sample size calculation, applying a 95% confidence level and a tolerance of P = 0.05. The resulting formula for calculating the required sample size for employees is as follows:

$$\mathbf{n} = \frac{N}{1 + N(e)^2}$$

Where.

n = the sample size; **N** = the population size; **e** = the acceptance sampling error

$= 3340/1+ 3340\ (.05)^2$

$= 357$

A proportionate stratified random sampling approach was applied to select a sample of 357 community members from the total target population of 3,340, as shown in Table 3.1.

Table 3.1 Target Population

Respondents	Target Population	Sample size	Sampling procedure
Community members	3340	357	Stratified, simple random
Registered tour operators	430	43	Purposive sampling
Tourism officers	39	13	Purposive sampling
Domestic and international tourists	760	76	Purposive sampling
Total	4,569	**489**	

***Source*:** Researcher, 2024

3.6 Data Collection Instrument and Procedures

According to Waiganjo (2013), researchers can utilize various instruments for data collection, such as questionnaires, interviews, focus groups, observations, reviewing historical records, and making recordings. In this study, primary data collection was the chosen approach, with the main tool being the questionnaire. These questionnaires were distributed to community members to gather firsthand information on the study's key variables. Both structured questionnaires and interview schedules were employed to obtain primary data from the selected respondents.

3.6.1 Questionnaires

A questionnaire serves as a research tool comprising a set of questions or prompts presented to participants to gather survey responses. Among the various data collection techniques available, using questionnaires is recognized as a highly effective method (Saunders et al., 2015). For this study, the questionnaire was carefully tailored to ensure it addressed the research questions and captured the

specific objectives reflected in the study's variables. Distribution of the questionnaire targeted community members directly.

A structured questionnaire was utilized to gather data from participants, as this method is both time- and cost-efficient when reaching a large sample. It also provides anonymity for respondents, minimizing the risk of bias (Dźwigoł & Dźwigoł-Barosz, 2018). This approach encouraged respondents to express their views honestly. Additionally, the use of closed-ended questions simplified statistical analysis and made the process of organizing and interpreting the data more straightforward (Daniel & Harland, 2017).

To gather data, the study utilised closed-ended questionnaires designed to capture participants' perceptions, experiences, and viewpoints related to the research variables. Each variable was assessed using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents indicated their level of agreement with a series of statements pertaining to the central variables of the research.

The questionnaire was organised into five sections, labelled A through E. Section A collected demographic information, Section B focused on coastal destination diversification, Section C addressed environmental impacts, Section D examined economic impacts, and Section E explored social impacts.

3.6.2 Interview Schedule

Kumar (2012) notes that one benefit of structured interviews is the ability for researchers to clarify any issues or misunderstandings about the questions. By using an interview guide, researchers can ensure that responses are consistently collected while also having the flexibility to ask follow-up questions when necessary. In this

research, the interview schedule was crafted to obtain detailed qualitative data to supplement the quantitative results. Interview guides were used to gather insights from tourism officials and key informants, enabling in-depth, open-ended conversations about the study's variables. This approach provided a structured framework for conducting semi-structured interviews with important stakeholders such as tour operators, tourism officers, and both domestic and international tourists arriving in Mombasa by cruise ship, focusing on the coastal tourism sector.

3.7 Data Collection Procedures

Before the actual data collection exercise took place, the researcher obtained authorisation from the School of Business and Economics, Moi University, to collect data. Data was collected using questionnaires using the drop-and-pick method under close supervision of the researcher. A period of two weeks was given for the respondents to fill in the questionnaire after which they were collected. The interviews were also conducted with selected respondents.

3.8 Reliability and Validity Instruments

A pre-test was done to test the validity and reliability of the questionnaires. The questionnaire was tested during the piloting process to identify any flaws. The researcher conducted a pilot test by randomly administering questionnaires to 10% of sample in Kilifi county. According to Cooper & Schilder, (2011), 10% of the sample constitutes the pilot test. The respondents included a total of 37. Conducting the pre-test played a vital role in pinpointing any gaps and allowed for the review and refinement of questions, methods, and strategies, ultimately improving the validity and reliability of the research tools.

3.8.1 Reliability of the Instruments

Reliability is the instrument's ability to produce consistent results over time. Middleton (2020) points out, reliability alone is not enough, as measures must be valid and reliable. To evaluate the reliability of the research instruments, the study employed the Cronbach's Alpha coefficient to measure the internal consistency of the questionnaire items during the pilot phase. The researcher conducted the pilot test, after which the collected data were entered into SPSS version 26 for reliability analysis. Cronbach's Alpha was calculated for each item to assess the instrument's reliability, and any unclear or insufficient items were revised to improve quality. A Cronbach's Alpha value above 0.7 was considered acceptable, following Bryman (2012), to confirm satisfactory reliability of the research tools.

3.8.2 Validity of the Instruments

Validity concerns the accuracy and appropriateness of the conclusions drawn from research results. According to Middleton (2020), validity can be evaluated from several perspectives, including construct, content, and face validity. As Zohrabi (2013) explains, face validity is based on the researcher's subjective judgment of whether the measuring tool appears suitable and credible for its intended purpose. In this study, the research instruments were enhanced by drawing upon concepts and findings from related literature and previous studies. For face validity, the questionnaires underwent both subjective and objective reviews with input from research supervisors.

To achieve content validity, it was essential to ensure that every aspect of the research constructs was thoroughly covered. This was accomplished by seeking expert evaluations from the research supervisors, who assessed the instruments to confirm that all study objectives and variables were adequately addressed. Recommendations

and revisions from these supervisors were incorporated to further refine and strengthen the research tools.

Construct Validity pertains to the effectiveness with which researchers convert concepts or theories into measurable outcomes (Middleton, 2020; Kiiru, 2015). To ensure construct validity, the process involves defining terms operationally, examining both empirical and theoretical literature, and seeking expert opinions to accurately reflect the theoretical foundations that inform the creation of a conceptual framework.

In this study, construct validity was successfully enhanced by clearly defining terms, creating a conceptual framework, and engaging supervisors along with other experts in research methodology who were well-versed in the research instruments, empirical literature, and theoretical foundations relevant to the study. Additionally, both discriminant and convergent validity were further confirmed by performing a factor analysis using principal component analysis with a varimax rotation method (Koh and Nam, 2005).

3.9 Data Analysis and Presentation

The gathered information was transformed into a format that can be understood by machines, typically in the form of spreadsheets or text files, allowing for analysis using software like SPSS. This process included coding the data, entering it, verifying it for any missing entries, and transforming it as necessary. The compiled data underwent coding, editing, and analysis.

The numeric data was analysed quantitatively through descriptive analyses that provided a statistical overview of the key constructs, and inferential analyses were employed to evaluate the hypotheses. The results were illustrated with tables, graphs,

figures, and charts to facilitate interpretation and comprehension. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated for all variables related to the measurement items.

The study utilised inferential statistics, specifically correlation, as well as both linear and multiple regression analyses. To ensure valid results from Pearson's correlation, certain assumptions needed to be verified. These four assumptions were assessed using SPSS Statistics. The first assumption is that both variables should be measured on an interval or ratio scale, indicating they are continuous. The second assumption is the presence of a linear relationship between the two variables. For the third assumption, it is necessary to identify and exclude any significant outliers. Finally, the fourth assumption requires that the variables exhibit an approximately normal distribution.

3.10 Assumptions of a Regression Model

Prior to conducting regression analysis, the assumptions of the regression model were assessed. Various tests were carried out to verify the fundamental assumptions regarding the population from which the data were sourced. These tests included assessments of normality, linearity, multicollinearity, and heteroscedasticity, which were used to evaluate the relationship between the response variable and the predictor variables.

3.10.1 Linearity

The linearity test assesses the relationship between predictor variables, determining if they are related linearly. This indicates that any unit increase in an explanatory variable leads to an increase in the response variable. To evaluate linearity, Pearson's linear-by-linear correlation was employed (Schober, Boer & Schwarte, 2018). This

correlation coefficient measures both the direction and strength of the relationship between each predictor variable and the linear association of the response variable(s) (Aygün, Yılmaz, & Gülseçen, 2017; Kiiru, 2015).

3.10.2 Normality

The normality test evaluates how closely a sample data distribution aligns with a normal distribution (Hair, Black, & Anderson, 2010). To assess normality, various methods were employed, including visual inspections of data plots, along with calculations for skewness and kurtosis, as well as p-p plots. For the data to meet the normality assumption, skewness should be within the range of ± 2.0 and kurtosis should stay within ± 7.0; any values exceeding these limits indicate a violation of normality. Additionally, a Histogram was utilized to illustrate the shape and distribution of error terms, confirming their normal distribution.

3.10.3 Homoscedasticity

Homoscedasticity refers to the condition where the variability of the response variable remains consistent across different predictor variables, indicating constant variance in the residuals (Hair et al., 2010). If the variance of the residuals between observations remains stable, it is considered homoscedastic. Conversely, if the variance fluctuates, this indicates heteroscedasticity, which occurs when the error variance changes at various levels of the independent variable. To assess this assumption, a plot of standardized residuals against standardized predicted values is examined for noticeable patterns, such as funneling in the residuals. According to Osborne and Waters (2002), residuals should ideally fall within the range of -2 to +2.

3.10.4 multi-collinearity

Multicollinearity was evaluated through the use of Tolerance and the Variance Inflation Factor (VIF), which were determined using the regression procedure in SPSS. Additionally, the correlation coefficients among the variables were also examined. When multicollinearity is present, the VIF test helps to identify if the correlation between variables is significant enough to lead to misleading conclusions. Specifically, a VIF value exceeding 10 and a tolerance below 0.2 (with an average VIF greater than 2) indicate the presence of multicollinearity among the predictor and response variables (Hair, Anderson & Black, 2010).

3.10.5 Model Specification

The regression model showed the regression equation as follows:

$$Y= \beta_0+ \beta_1X_1+ \beta_2X_2+ \beta_3X_3+\varepsilon$$

Where:

Y = Coastal Destination Diversification

X_1 = Economic Impact

X_2 = Environmental Impact

X_3 = Social Impact

ε = Error term

3.11 Ethical Considerations

Prior to initiating data collection, the researcher secured approval from the Moi University Post Graduate Committee, which issued an introductory letter from the School of Tourism, Hospitality & Events Management for fieldwork. This letter was also instrumental in obtaining permission from NACOSTI for data collection. The

researcher submitted a request to the selected institutions to gain access for conducting the research. Participants were assured of their privacy and informed that the study was solely for academic purposes. They had the option to voluntarily participate by signing a consent form. The researcher prioritised anonymity and full confidentiality of the information gathered from participants. Ethical considerations were integral to this study, including the proper handling of respondents' anonymity, privacy, and confidentiality.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.0 Introduction

This chapter presents a comprehensive analysis, interpretation, and presentation of the study findings concerning the triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County. It elaborates on the data analysis techniques employed to address the research objectives and test the study hypotheses. The results are systematically arranged into the following thematic areas: demographic information of the respondents, descriptive statistics pertaining to both independent and dependent variables, reliability and validity assessments, and inferential statistical analyses—including Pearson Product Moment Correlation, linear and multiple regression analysis.

4.1 Response1 Rate

Primary data were collected through a structured questionnaire administered to heads1 of1 households. Out of the 357 questionnaires distributed, a total of 268 were completed and returned, resulting in a response rate of 75%, as summarized in Table 4.1.

Table 4.1 Response Rate Questionnaire

	Frequency	**Percent**
Returned1	268	75
Non-returned	89	25
Total1	**357**	**1001**

According to Blumenberg and Barros (2018), a response rate of 70% or higher is typically considered ideal for reliable data analysis. The achieved response rate of 93% in this study therefore exceeded expectations, making the data suitable for

further statistical evaluation. This high completion rate can be attributed to the use of self-administered questionnaires and the researcher's proactive engagement with participants, which included informing them in advance about the data collection schedule.

4.2 Demographic Information of Respondents

The study also aimed to capture the demographic characteristics of the participants. These included gender, marital status, duration involved in cruise tourism, age, educational attainment.

4.2.1 Gender Distribution

The gender distribution of respondents in this study reveals that 52.6% were female (141 participants), while 47.4% were male (127 participants), out of a total of 268 cases (Table 4.1). This near-equal representation provides a balanced demographic foundation for assessing perceptions and experiences related to cruise tourism and coastal destination diversification in Mombasa County.

Table 4.2 Gender Distribution

	Frequency	Percent	Cumulative Percent
Male	127	47.4	47.4
Female	141	52.6	100.0
Total	**268**	**100.0**	

The slight predominance of female respondents suggests that women may be actively engaged or affected by tourism activities along the coast, whether as business owners, service providers, community members, or consumers. This finding is important as it allows the study to capture diverse gender perspectives on how cruise tourism

influences local economies, employment, cultural exposure, and environmental sustainability.

Gender dynamics can play a critical role in shaping the benefits and challenges of tourism-driven diversification, particularly in coastal destinations where traditional gender roles may intersect with modern economic activities. Therefore, the balanced gender representation strengthens the credibility of the findings and supports gender-responsive planning and policy-making aimed at enhancing the positive impacts of cruise tourism while mitigating any unintended consequences on local communities in Mombasa County.

4.2.2 Marital status

The marital status distribution of the respondents indicates that a majority—57.5% (154 individuals)—were married, followed by 38.4% (103 individuals) who were single (Table 4.3). A smaller proportion were divorced (3.0%) and separated (1.1%), reflecting relatively low representation from these groups.

Table 4.3 Marital status

	Frequency	Percent	Cumulative Percent
Married	154	57.5	57.5
Single	103	38.4	95.9
Divorced	8	3.0	98.9
Separated	3	1.1	100.0
Total	**268**	**100.0**	

This demographic composition offers meaningful insights into how individuals at different stages of family life may perceive and experience the effects of cruise tourism on coastal destination diversification in Mombasa County. Married

individuals, often with family responsibilities, may have stronger interest in sustainable income sources, job creation, and infrastructural development brought about by cruise tourism. They may also be more concerned with the social and cultural implications of tourism, including security, community values, and environmental preservation. In contrast, single respondents, who form a significant portion of the sample, may be more attuned to employment opportunities, entrepreneurship, and social engagement aspects of cruise tourism. Understanding these varying perspectives is crucial for crafting inclusive policies that ensure cruise tourism contributes equitably to the diversification of coastal destinations, taking into account the socio-economic needs and expectations of both family-oriented and individual stakeholders in Mombasa County.

4.2.3 Duration Involved in Cruise Tourism

Based on the findings presented on the duration of engagement in cruise tourism-related activities, it is evident that the majority of respondents in Mombasa County had been involved in such activities for a period of 1 to 5 years, accounting for 41.0% of the total respondents (Table 4.4). The group with less than one year of involvement also forms a significant portion (28.4%), further reinforcing the observation that participation in cruise tourism is expanding and attracting new entrants. On the other hand, those with longer durations of involvement—6 to 10 years (20.1%) and over 10 years (10.4%)—make up a smaller percentage. This reflects that cruise tourism as a contributor to coastal destination diversification in Mombasa is still an emerging industry rather than an entrenched or mature one.

Table 4.4 Duration Involved in Cruise Tourism

Duration	Frequency	Percent	Cumulative Percent
<1 year	76	28.4	28.4
1-5 years	110	41.0	69.4
6-10 years	54	20.1	89.6
>10 years	28	10.4	100.0
Total	**268**	**100.0**	

This indicates that cruise tourism is a relatively recent but growing sector, attracting increasing interest and involvement from the local population within the last half-decade. The notable representation of individuals within these two categories suggests that cruise tourism is offering fresh economic opportunities that are diversifying the local coastal economy beyond traditional sectors such as fishing and small-scale trade.

The lower proportion of long-term participants may also imply that cruise tourism initiatives have only recently been mainstreamed or prioritized in county tourism strategies, possibly due to earlier infrastructural or policy limitations. These findings underscore that coastal destination diversification in Mombasa is actively taking shape through cruise tourism, especially in the last five years. The increased participation in recent years could be attributed to improved port infrastructure, government investment, global trends in marine tourism, or targeted marketing of Mombasa as a cruise-friendly destination. This diversification has the potential to create new employment avenues, stimulate related sectors (such as transport, hospitality, and local crafts), and enhance the county's economic resilience by reducing overreliance on traditional forms of tourism or resource-dependent livelihoods. However, the relatively low long-term engagement also points to the need for sustained policy support, investment in skills development, and infrastructure

enhancement to ensure that cruise tourism becomes a stable and long-term pillar of Mombasa's coastal economy.

4.2.4 Age group

The largest segment of participants falls within the 26 to 35 years age group, accounting for 47.8% of the total respondents. Meanwhile, the 18 to 25 years group also makes up a significant share (23.5%), indicating that youth are entering cruise tourism-related roles, likely at entry-level positions, or are beginning to explore entrepreneurial ventures in this emerging tourism sub-sector (Table 4.5).

Notably, the 46 to 55 years (1.9%) and over 55 years (0.4%) age groups are minimally represented. Meanwhile, the 18 to 25 years group also makes up a significant share (23.5%), indicating that youth are entering cruise tourism-related roles, likely at entry-level positions, or are beginning to explore entrepreneurial ventures in this emerging tourism sub-sector. The second most represented group is the 36 to 45 years cohort, comprising 26.5% of the respondents. This group often includes individuals with more experience and potentially more capital or skills to engage in entrepreneurial activities related to cruise tourism—such as tour operations, transport services, or hospitality businesses. Notably, the 46 to 55 years (1.9%) and over 55 years (0.4%) age groups are minimally represented.

Table 4.5 Age group

	Frequency	Percent	Cumulative Percent
18-25 years	63	23.5	23.5
26-35 years	128	47.8	71.3
36-45 years	71	26.5	97.8
46-55 years	5	1.9	99.6
Over 55 years	1	.4	100.0
Total	**268**	**100.0**	

The analysis of the respondents' age distribution reveals important insights into the demographic engagement in cruise tourism activities and its role in coastal destination diversification in Mombasa County. This indicates that cruise tourism in the region is largely driven by young adults who are likely to be in the prime of their economic productivity. Their involvement suggests that cruise tourism is offering viable economic or employment opportunities attractive to younger individuals who may be seeking alternatives to more traditional or saturated sectors such as fishing or informal retail.

This limited participation from older age cohorts suggests that cruise tourism activities in Mombasa are less attractive or accessible to older individuals, possibly due to the physically demanding nature of some roles, technological gaps, or lower levels of awareness and adaptability to newer economic opportunities. Overall, the data suggest that cruise tourism is playing a pivotal role in diversifying the coastal economy by engaging a predominantly youthful population, which is critical for long-term sustainability and innovation in tourism offerings. The age profile also implies a need for policies and programs that support youth empowerment, vocational training, and entrepreneurship, ensuring that the younger generation can fully benefit from and contribute to the growing cruise tourism sector in Mombasa County.

4.2.5 Highest Level of Education

The majority of respondents held either a diploma (35.4%) or a certificate (34.7%), indicating that most individuals involved in cruise tourism possess mid-level qualifications (Table 4.6). A notable portion of respondents had attained university education (19.8%), which indicates a presence of higher-educated individuals participating in the sector, possibly in administrative, managerial, or entrepreneurial roles. On the other end of the spectrum, only 9.3% of the participants had attained

secondary education as their highest level, and a mere 0.7% held postgraduate qualifications.

Table 4.6 Highest Level of Education

	Frequency	Percent	Cumulative Percent
Secondary	25	9.3	9.3
Certificate	93	34.7	44.0
Diploma	95	35.4	79.5
University	53	19.8	99.3
Postgraduate	2	.7	100.0
Total	**268**	**100.0**	

The analysis of respondents' educational qualifications provides valuable insights into the human capital engaged in cruise tourism and coastal destination diversification in Mombasa County. This suggests that the cruise tourism sector in Mombasa is accessible to individuals with vocational or technical training, reflecting the practical, service-oriented nature of the industry—such as roles in tour guiding, hospitality, logistics, and maritime services. This points to the sector's capacity to attract and accommodate a diverse workforce with varying levels of education, and also suggests that cruise tourism may offer skilled employment opportunities that contribute to knowledge-based coastal development.

The low proportion of those with only secondary education implies that basic schooling alone may be insufficient for meaningful participation in cruise tourism activities, possibly due to the need for specialized skills, language proficiency, or customer service training. The minimal representation of postgraduate degree holders further indicates that highly academic qualifications are not a common requirement in the current structure of the cruise tourism sector in Mombasa, which is more reliant on applied, technical, and interpersonal competencies.

These findings suggest that cruise tourism in Mombasa County is a driver of coastal destination diversification that provides economic opportunities primarily for those with vocational and mid-level academic qualifications. This highlights the importance of strengthening technical and vocational education and training (TVET) institutions to support the growing cruise tourism industry. Additionally, targeted capacity-building initiatives could further enhance the skills of this workforce and improve service quality, innovation, and competitiveness in the local tourism economy.

4.3 Descriptive Statistics

Descriptive statistics were used to give meaningful description of the quantitative data collected from the questionnaires. This included the use of frequencies, percentage, mean and standard deviation. Responses were elicited on a 5-point Likert scale of 1-5 where: 1–strongly disagree; 2–disagree; 3-moderately agree; 4-agree; 5-strongly agree. Analysis of the response mean scores was conducted on the continuous scale <1.5 represents strongly disagree; with 1.5-2.5 disagree; while 2.5-3.5 given moderately agree; with 3.5- 4.5 being agree and >4.5 represented strongly agree.

4.3.1 Descriptive Statistics for Coastal Destination Diversification

The dependent variable was coastal destination diversification in Mombasa County, Kenya. The study sought to establish the respondent's perception on coastal destination diversification. A total of sixteen statements were used to assess the views of respondents on coastal destination diversification using a 5-point likert scale, Table 4.7. Majority of the respondents 165(61.6%) agreed that coastal destination diversification is about creating and maintaining cruise passenger experiences, with 52(19.4%) disagreed and 51(19%) undecided (*M=3.60; SD=1.18)*.

Most of the respondents 141(52.6%) agreed that coastal destination diversification provides saleable products and services that meet visitors' needs and expectations, with 77(28.7%) disagreed and 50(18.7%) were undecided (*M=3.31; SD=1.25*). On the statement that cruise passenger experiences have been developed outside the regular tourism offering, majority of the respondents 176(65.7%) agreed, with 46 (17.1%) disagree and 17.2% were undecided as indicated by *M=3.68 & SD=1.09*. Majority of the respondents 139(51.9%) agreed that destination provide opportunities for cruise passengers experience the landscape, people, way of life, culture and food enjoyed by the local community, with 67(25%) disagreed and 23.1% undecided (*M=3.46; SD=1.33)*.

Table 4.7 Coastal Destination Diversification

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree		Mean	Std Dev
	F	%	F	%	F	%	F	%	F	%		
It is about creating and maintaining cruise passenger experiences	18	6.7	34	12.7	51	19.0	98	36.6	67	25.0	3.60	1.18
It provides saleable products and services that meet visitors' needs and expectations	28	10.4	49	18.3	50	18.7	93	34.7	48	17.9	3.31	1.25
The cruise passenger experiences have been developed outside the regular tourism offering	10	3.7	36	13.4	46	17.2	113	42.2	63	23.5	3.68	1.09
Destination provide opportunities for cruise passengers experience the landscape, people, way of life, culture and food enjoyed by the local community	28	10.4	39	14.6	62	23.1	59	22.0	80	29.9	3.46	1.33
Access of (ferry terminal, airports, roads and rail) are linked to cruise tourism	44	16.4	40	14.9	50	18.7	87	32.5	47	17.5	3.20	1.34
Accommodation and hospitality services are linked to cruise tourism	25	9.3	27	10.1	40	14.9	106	39.6	70	26.1	3.63	1.23
The attractions (natural & man made) are linked to cruise tourism	34	12.7	44	16.4	37	13.8	104	38.8	49	18.3	3.34	1.30
The amenities (ATMs, F&B outlets, public toilets, health facilities) are linked to cruise tourism	8	3.0	24	9.0	46	17.2	110	41.0	80	29.9	3.86	1.04
The county government has put in place product development initiatives to meet current and future cruise passenger needs and expectations	13	4.9	34	12.7	45	16.8	115	42.9	61	22.8	3.66	1.11
Demand or supply driven catalyst is changing the cruise passenger profile	7	2.6	26	9.7	43	16.0	105	39.2	87	32.5	3.89	1.05
Cruise tourism destinations have different economic attributes and facilities which has implications for cruise tourism size	27	10.1	32	11.9	47	17.5	113	42.2	49	18.3	3.47	1.21
Destinations understand cruise line itineraries and how they may influence cruise lines and the pattern of passenger spending	22	8.2	33	12.3	40	14.9	115	42.9	58	21.6	3.57	1.19
Deployment should be done in isolation, while cruise lines are optimizing itineraries to maximize guest appeal,	15	5.6	35	13.1	57	21.3	94	35.1	67	25.0	3.61	1.16
Destinations need to work together to develop their differentiated value proposition.	49	18.3	51	19.0	25	9.3	96	35.8	47	17.5	3.15	1.40
Ports should have access for cruise lines, sufficient berths and the capability to accommodate larger ships in the future.	10	3.7	10	3.7	47	17.5	116	43.3	85	31.7	3.96	0.99
Recipients of cruise tourism should be informed about the development of a destination management plan and its outcomes.	27	10.1	28	10.4	54	20.1	87	32.5	72	26.9	3.56	1.27
Overall mean											**3.56**	**0.71**

Most of the respondents 134(50%) agreed that access of (ferry terminal, airports, roads and rail) are linked to cruise tourism, with 84(31.3%) disagreed and 18.7% were undecided (*M=3.20; SD=1.34*). On the statement that accommodation and hospitality services are linked to cruise tourism, majority of the respondents 176(65.7%) agreed, with 52(19.4%) disagree and 14.9% were undecided as indicated by *M=3.63 & SD=1.23*. Majority of the respondents 165(61.6%) agreed that coastal destination diversification is about creating and maintaining cruise passenger experiences, with 52(19.4%) disagreed and 51(19%) undecided (*M=3.60; SD=1.18)*. Most of the respondents 141(52.6%) agreed that coastal destination diversification provides saleable products and services that meet visitors' needs and expectations, with 77(28.7%) disagreed and 50(18.7%) were undecided (*M=3.31; SD=1.25*). On the statement that cruise passenger experiences have been developed outside the regular tourism offering, majority of the respondents 176(65.7%) agreed, with 46 (17.1%) disagree and 17.2% were undecided as indicated by *M=3.68 & SD=1.09*.

Majority of the respondents 162(51.9%) agreed that cruise tourism destinations have different economic attributes and facilities which has implications for cruise tourism size, with 67(25%) disagreed and 23.1% undecided (*M=3.47; SD=1.21)*. Most of the respondents 134(50%) agreed that destinations understand cruise line itineraries and how they may influence cruise lines and the pattern of passenger spending, with 84(31.3%) disagreed and 18.7% were undecided (*M=3.57; SD=1.19*). On the statement that deployment should be done in isolation, while cruise lines are optimizing itineraries to maximize guest appeal, majority of the respondents 176(65.7%) agreed, with 52(19.4%) disagree and 14.9% were undecided as indicated by *M=3.61 & SD=1.16*.

Majority of the respondents 143(53.3%) agreed that destinations need to work together to develop their differentiated value proposition, with 100(27.3%) disagreed and 9.3% undecided (*M=3.15; SD=1.40)*. Most of the respondents 201(75%) agreed that ports should have access for cruise lines, sufficient berths and the capability to accommodate larger ships in the future, with 20(7.4%) disagreed and 17.5% were undecided (*M=3.96; SD=0.99*). On the statement that recipients of cruise tourism should be informed about the development of a destination management plan and its outcomes, majority of the respondents 159 (59.4%) agreed, with 55(20.5%) disagree and 20.1% were undecided as indicated by *M=3.56 & SD=1.27*. From the descriptive analysis of the coastal destination diversification, findings revealed that the sixteen statements used to coastal destination diversification yielded an overall mean score of 3.56 and a standard deviation of 0.71. These statistics indicate that majority of respondents agreed with the statements measuring the coastal destination diversification.

4.3.2 Environmental Impact of Cruise Tourism

The study sought to establish the respondent's perception on environmental impact of cruise tourism. Table 4.8. Majority of the respondents agreed that there is protection of natural resources and endemic species, (M=3.96; SD=1.12). Furthermore, they agreed that development of attraction sites that promote conservation (M=3.79; SD=1.21). On the statement that cruise tourism was improving sustainability and building a positive image of the destination majority agreed, as indicated by M=3.54 & SD=1.17.

Table 4.8: Environmental Impact of Cruise Tourism

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree		Mean	Std Dev
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
There is protection of natural resources and endemic species	12	4.5	22	8.2	35	13.1	96	35.8	103	38.4	3.96	1.12
Development of attraction sites that promote conservation	16	6.0	29	10.8	46	17.2	80	29.9	97	36.2	3.79	1.21
Improving sustainability and building a positive image of the destination	18	6.7	32	11.9	67	25.0	88	32.8	63	23.5	3.54	1.17
Development of eco-tourism e.g. biking, hiking, etc.	14	5.2	12	4.5	35	13.1	101	37.7	106	39.6	4.02	1.09
Cruise ship improving technology to protect the environment	16	6.0	27	10.1	37	13.8	99	36.9	89	33.2	3.81	1.18
As a result of cruise visitation, villages are cleaner and more attractive to the community	44	16.4	51	19.0	45	16.8	59	22.0	69	25.7	3.22	1.43
Damage to natural resources and endemic species	5	1.9	3	1.1	20	7.5	104	38.8	136	50.7	4.35	0.82
Atmospheric pollution by the fumes generated by the combustion of the engines	27	10.1	36	13.4	48	17.9	97	36.2	60	22.4	3.47	1.26
There has been waste management	2	.7	6	2.2	52	19.4	120	44.8	88	32.8	4.07	0.82
Contamination of solid and liquid waste generated by cruise ships	6	2.2	11	4.1	42	15.7	111	41.4	98	36.6	4.06	0.94
Anchorage damage to the seabed	20	7.5	22	8.2	47	17.5	128	47.8	51	19.0	3.63	1.11
Exploitation of natural resources e.g. birds	13	4.9	21	7.8	46	17.2	127	47.4	61	22.8	3.75	1.05
Concentration of population in one area	20	7.5	44	16.4	55	20.5	90	33.6	59	22.0	3.46	1.21
Transfer of passenger attitudes towards environmental protection	8	3.0	18	6.7	56	20.9	127	47.4	59	22.0	3.79	0.96
Government develops regulations to improve the environment and provide funding for this	17	6.3	26	9.7	74	27.6	100	37.3	51	19.0	3.53	1.10
Overall mean											**3.76**	**0.67**

Majority of the respondents agreed that there was development of eco-tourism e.g. biking, hiking due to cruise tourism, (M=4.02; SD=1.09). In addition, most agreed that cruise ship improved technology to protect the environment (M=3.81; SD=1.18). On the statement that cruise tourism damage to natural resources and endemic species majority agreed, as indicated by M=4.35 & SD=0.82. Majority of the respondents agreed that there has been waste management because of cruise tourism, (M=4.07; SD=0.82). Furthermore, they agreed that there was contamination of solid and liquid waste generated by cruise ships (M=4.06; SD=0.94).

On the statement that cruise tourism anchorage damage to the seabed majority agreed, as indicated by M=3.63 and SD=1.11. Majority of the respondents agreed that there was exploitation of natural resources e.g. birds due to cruise tourism, (M=3.75; SD=1.05). In addition, most agreed that cruise ship transfer of passenger attitudes towards environmental protection (M=3.79; SD=0.96). On the statement that government develops regulations to improve the environment and provide funding for this majority agreed, as indicated by M=3.53 and SD=1.10.

From the descriptive analysis of the environmental impact of cruise tourism, findings revealed that the fifteen statements used to measure environmental impact of cruise tourism yielded an overall mean score of 3.76 and a standard deviation of 0.67. These statistics indicate that majority of respondents agreed with the statements measuring the environmental impact of cruise tourism.

The Mombasa findings that cruise tourism damages natural habitats, contributes to marine and coastal pollution, and affects local ecosystems are echoed in multiple studies. For instance, Gabrielli, Cafiero, and Ricci (2021) in *Venice, Italy* found that cruise ship traffic led to water pollution, sediment disruption, and lagoon degradation,

directly undermining Venice's capacity to diversify into eco-tourism and lagoon-based experiences. Similarly, Rahman et al. (2022) in *Langkawi, Malaysia* observed that frequent docking led to oil residue accumulation, coral bleaching, and biodiversity loss, threatening high-value nature-based tourism alternatives.

Gibson, Thapa, and Dahal (2020) in *PortMiami, Florida* linked cruise ship emissions and waste discharge to declining air quality and growing community resistance toward sustainable tourism projects like urban eco-parks, conservation trails, and wellness retreats. The findings from Mombasa, which highlighted similar concerns about waste, anchorage damage, and exploitation of natural resources, are thus part of a global pattern where unregulated environmental practices discourage public support and limit the destination's ability to diversify into more sustainable offerings.

In Cape Town, Chirume and Makoni (2020) documented how cruise tourism caused shoreline erosion, marine littering, and water pollution, all of which undermined efforts to develop alternative tourism products such as cultural tours, heritage-based tourism, and marine ecotourism—a situation strikingly similar to what has been observed in Mombasa.

Despite the environmental threats, the Mombasa county also revealed that respondents recognized improvements in cruise ship technology and supported government regulations and interventions aimed at enhancing environmental sustainability. This reflects a key theme in the literature—that public awareness and regulatory interventions can mitigate environmental harm and create enabling conditions for diversification.

Factor analysis was employed to streamline data by identifying clusters among the inter-correlations of various variables that best represent the underlying construct. To

carry out this analysis, exploratory factor analysis (EFA) was conducted using SPSS V. 26.0 software. To evaluate the suitability of the data for factor analysis, two statistical tests were utilized: Bartlett's test of sphericity (Bartlett, 1954) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1970, 1974). The KMO measure ranges from 0 to 1, with values closer to 1 indicating better appropriateness for factor analysis, and a minimum value of 0.6 is deemed acceptable. Additionally, Bartlett's Test of Sphericity assesses the null hypothesis that the correlation matrix resembles an identity matrix. For factor analysis to be considered suitable, Bartlett's test must yield significant results ($p < 0.05$) (Tabachnick & Fidell, 2013), and it is expected that all factor loadings surpass the 0.5 threshold for acceptable loadings (Truong & McColl, 2011).In the Canary Islands, Santana-Fernández et al. (2022) confirmed that marine congestion and ecological stress from cruise activity negatively influenced tourist satisfaction and product diversification. However, they found that implementation of sustainable environmental practices, such as protected marine areas and regulated port operations, enhanced competitiveness and opened opportunities for hiking trails, marine reserves, and cultural excursions.

Similarly, in Istanbul, Demirtaş and Aykan (2023) showed that while unmanaged emissions and marine litter discouraged tourism investment, the introduction of environmental audits and policy reforms created space for waterfront regeneration and artisanal tourism. The Mombasa finding that cruise tourism prompted policy action and environmental funding mirrors these developments and suggests that well-regulated environmental management can turn a liability into a lever for diversification.

In many studies, including Brida and Zapata (2020) in Cartagena, Colombia and Diedrich and García-Buades (2020) in Belize, it was observed that community dissatisfaction with environmental degradation reduced trust in tourism governance and diminished support for diversification projects. Both studies emphasized the need for participatory planning, stakeholder involvement, and environmental justice to enable sustainable tourism transformation. These findings reinforce the conclusion that environmental impacts must not only be minimized but also openly addressed through inclusive governance, as also recognized by respondents in the Mombasa county who cited the role of government regulations and public involvement in managing environmental issues.

4.3.3 Economic Impact of Cruise Tourism

The second independent variable was economic impact of cruise tourism in Mombasa county, Kenya. The study sought to establish the respondent's perception on economic impact of cruise tourism. A total of eleven statements were used to assess the views of respondents on economic impact of cruise tourism using a 5-point likert scale, Table 4.9.

Table 4.9: Economic Impact of Cruise Tourism

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree		Mean	Std Dev
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Development of direct and indirect employment	11	4.1	18	6.7	64	23.9	105	39.2	70	26.1	3.76	1.04
Economic benefit to government and SMEs e.g. retailers, transport providers, tour operators, etc.	24	9.0	31	11.6	44	16.4	81	30.2	88	32.8	3.66	1.29
Income to local communities e.g. landowner sites, carvers, crafts, artefact's, dancers, guides, cultural groups, tour operators, etc.	16	6.0	36	13.4	61	22.8	103	38.4	52	19.4	3.52	1.13
Empowering women to start and run own business	8	3.0	11	4.1	60	22.4	121	45.1	68	25.4	3.86	0.95
Infrastructure development	24	9.0	29	10.8	51	19.0	89	33.2	75	28.0	3.60	1.25
Improvement of quality of life of the local community	24	9.0	47	17.5	68	25.4	85	31.7	44	16.4	3.29	1.20
New product development	30	11.2	47	17.5	77	28.7	76	28.4	38	14.2	3.17	1.20
New business start-ups in tourism services and activities	17	6.3	40	14.9	73	27.2	102	38.1	36	13.4	3.37	1.09
Distribution of income	21	7.8	36	13.4	58	21.6	106	39.6	47	17.5	3.46	1.16
Less services consumed in destination e.g. hotels, restaurants	23	8.6	33	12.3	75	28.0	88	32.8	49	18.3	3.40	1.17
Inconsistency of cruise passenger spending impacts experience i.e. shops close when ships are in port	16	6.0	17	6.3	73	27.2	94	35.1	68	25.4	3.68	1.10
Overall mean											**3.52**	**0.75**

Majority of the respondents agreed that there was development of direct and indirect employment, (M=3.76; SD=1.04). Furthermore, they agreed that cruise tourism had economic benefit to government and SMEs e.g. retailers, transport providers, tour operators, etc (M=3.66; SD=1.29). On the statement that cruise tourism provide income to local communities e.g. landowner sites, carvers, crafts, artefact's, dancers, guides, cultural groups, tour operators, etc majority agreed, as indicated by M=3.52 & SD=1.13. Majority of the respondents agreed that due to cruise tourism there was empowering women to start and run own business, (M=3.86; SD=0.95).

In addition, most agreed that infrastructure development has developed due to cruise ship (M=3.60; SD=1.25). On the statement that cruise tourism damage to natural resources and endemic species majority agreed, as indicated by M=4.35 & SD=0.82. Majority of the respondents agreed that there was inconsistency of cruise passenger spending impacts experience i.e. shops close when ships are in port, (M=3.68; SD=1.10). From the descriptive analysis of the economic impact of cruise tourism, findings revealed that the eleven statements used to measure economic yielded an overall mean score of 3.52 and a standard deviation of 0.75. These statistics indicate that majority of respondents agreed with the statements measuring the economic impact of cruise tourism.

The study's findings that cruise tourism supports local employment and small business growth are corroborated by Brida, Pulina, and Riaño (2020) in Cartagena, Colombia, who noted that visitor spending increased local incomes, particularly for artisans and tour operators. However, they also cautioned about seasonal dependency and uneven income distribution, echoing Mombasa's concerns about inconsistent passenger expenditure. These conditions have prompted both regions to explore diversified tourism products, such as cultural and culinary tours, to reduce economic volatility.

In Zanzibar, Nkwame and Kalume (2023) similarly found that cruise-generated revenues were reinvested into community-based tourism, including spice farm visits and coral reef excursions. This resonates with Mombasa's emphasis on economic empowerment, particularly the role of women in tourism entrepreneurship, and mirrors the inclusive tourism strategies observed across East Africa.

The Mombasa county further identified infrastructure development as a key economic benefit, enabling local governments to improve port areas, roads, and public facilities. This finding is mirrored in Lück and Maher (2021) who studied remote coastal areas in New Zealand, where cruise tourism revenues supported the construction of general-use infrastructure—not limited to cruise operations—thus fostering eco-cultural and inland adventure tourism. Likewise, Marques and Pinto (2021) in Lisbon showed that cruise income allowed local authorities to fund gastronomy festivals, cultural centers, and music events, directly enhancing tourism diversification beyond port zones.

In Dubai, Alrawadieh et al. (2022) found that economic gains from cruise tourism led to the development of shopping districts and safari circuits, which diversified the emirate's tourism offerings. These findings are comparable to Mombasa’s reinvestment in Swahili heritage tours, ecotourism, and conference tourism, as revealed in the study by Okello and Gitau (2023). However, both cases indicated that such diversification was modest and required stronger planning and policy support.

Despite these positive relationships, several studies, including the one in Mombasa, noted concerns about uneven distribution of cruise income and overreliance on port activities. McElroy and Parry (2020), in their study of *Caribbean island states*, highlighted the issue of economic leakage, where cruise revenues were often captured by international cruise lines and large operators, leaving local economies vulnerable.

Their solution—investing in heritage sites and inland excursions—aligns with the need in Mombasa to spread economic benefits beyond the port zone. Similarly, Hritz and Cecil (2021) found in *Key West, Florida* that residents recognized economic benefits but warned against overdependence on cruise tourism, urging investment in eco-tourism and cultural diversification. Mombasa's findings reflect this need for a balanced, diversified approach to ensure long-term economic resilience.

In Durban, South Africa, Dube and Nhamo (2022) reported that cruise revenues were used to fund township tourism and coastal cleanups, showing a clear link between cruise income and diversification into inclusive tourism sectors. Likewise, the Mombasa county observed that cruise tourism income was beginning to support alternative products, though at a limited scale. These examples suggest that African coastal destinations must adopt strategic reinvestment policies to fully realize the economic potential of cruise tourism in diversification efforts.

4.3.4 Social Impact of Cruise Tourism

The third independent variable was social impact of cruise tourism in Mombasa County, Kenya. The study sought to establish the respondent's perception on social impact of cruise tourism. A total of twelve statements were used to assess the views of respondents on social impact of cruise tourism using a 5-point likert scale, Table 4.10.

Table 4.10 Social Impact of Cruise Tourism

	Strongly disagree		Disagree		Undecided		Agree		Strongly agree		Mean	Std Dev
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
Improve infrastructure within destination surroundings the port	9	3.4	5	1.9	36	13.4	143	53.4	75	28.0	4.01	0.89
Improved quality of life for the community	12	4.5	15	5.6	23	8.6	144	53.7	74	27.6	3.94	0.99
Preserve local culture and heritage by sharing with tourists	4	1.5	11	4.1	29	10.8	142	53.0	82	30.6	4.07	0.84
Development of security within the port	16	6.0	11	4.1	30	11.2	148	55.2	63	23.5	3.86	1.02
Cultural exchange between locals and visitors	6	2.2	9	3.4	25	9.3	150	56.0	78	29.1	4.06	0.85
Reduces poverty and prostitution	6	2.2	5	1.9	38	14.2	136	50.7	83	31.0	4.06	0.85
Community support in remote locations e.g. medical, education, donations	16	6.0	33	12.3	66	24.6	90	33.6	63	23.5	3.56	1.15
All transport diverted to cater for cruise tourists	6	2.2	31	11.6	56	20.9	128	47.8	47	17.5	3.67	0.97
Incidents of insecurity to cruise tourists.	7	2.6	26	9.7	60	22.4	115	42.9	60	22.4	3.73	1.00
City traffic jams, congestion impacting locals	3	1.1	9	3.4	62	23.1	139	51.9	55	20.5	3.87	0.81
Foreign culture influence and change local community	7	2.6	20	7.5	51	19.0	133	49.6	57	21.3	3.79	0.95
Local behaviour e.g. begging, poor social attitudes	7	2.6	9	3.4	54	20.1	113	42.2	85	31.7	3.97	0.94
Overall mean											**3.88**	**0.59**

Most respondents agreed that cruise tourism improve infrastructure within destination surroundings the port, as indicated by M=4.01 and SD=0.89. Majority of the respondents agreed that there was improved quality of life for the community, (M=3.94; SD=0.99). In addition, most agreed that cruise ship preserves local culture and heritage by sharing with tourists (M=4.07; SD=0.84). On the statement that cruise tourism has led to city traffic jams, congestion impact local's majority agreed, as indicated by M=3.87 and SD=0.81. Majority of the respondents agreed that there is cultural exchange between locals and visitors because of cruise tourism, (M=4.06; SD=0.85).

Furthermore, they agreed that cruise tourism reduces poverty and prostitution (M=4.06; SD=0.85). On the statement that foreign culture influence and change of local community majority agreed, as indicated by M=3.79 and SD=0.95. Majority of the respondents agreed that local behaviour change experienced e.g. begging, poor social attitudes cruise tourists, (M=3.97; SD=0.94). From the descriptive analysis of the social impact of cruise tourism, findings revealed that the twelve statements used to measure social yielded an overall mean score of 3.88 and a standard deviation of 0.59. These statistics indicate that majority of respondents agreed with the statements measuring the social impact of cruise tourism.

The perception that cruise tourism improves infrastructure and social services, and empowers communities by providing opportunities—especially for women and youth—is echoed in global studies. In Lisbon, Portugal, Silva and Fernandes (2021) found that cruise tourism improved urban amenities and contributed to resident empowerment, increasing support for diversified tourism such as artisanal markets and riverfront events. Similarly, in Mombasa, Mwangi and Muthoni (2023) observed that cruise tourism contributed to employment generation and cultural interaction,

enhancing the social fabric and encouraging grassroots tourism ventures, like cultural village tours and handicraft workshops.

In Zanzibar, Tanzania, Yusuf and Ally (2022) noted that cruise tourism enhanced social mobility and exposure, giving rise to community advocacy for inclusive tourism models, such as cultural homestays and music festivals, to promote cultural resilience and diversification. These findings support the conclusion that positive social experiences from cruise tourism encourage the development of alternative, community-based tourism products that enrich coastal destination portfolios.

Despite the benefits, the study identified congestion, cultural dilution, and behavioral issues as notable concerns. These findings mirror those in Cartagena, Colombia, where Brida and Zapata (2020) revealed that congestion, noise, and cultural erosion undermined resident support for cruise tourism, thereby fueling demand for socially sustainable alternatives like eco-cultural tourism.

In PortMiami, Gibson, Thapa, and Dahal (2020) reported resident division over social benefits, pointing to rising living costs and displacement as negative outcomes. This social tension pushed city planners to redirect efforts toward urban green spaces and cultural districts, promoting broader tourism diversification. Similarly, in Santorini and Mykonos, Lekakou, Pallis, and Vaggelas (2020) found that overcrowding and community resentment led authorities to invest in agro-tourism and culinary trails, demonstrating how social pressures can drive strategic diversification away from cruise-intensive experiences.

In Barcelona and Venice, Russo and Scarnato (2021) highlighted social conflicts stemming from cruise overreach, including stress on housing and public services. These tensions led to policies promoting artisan markets, heritage conservation, and

decentralized tourism routes, aligning with Mombasa's community-led advocacy for cultural diversification as a counterbalance to cruise-induced social strain.

The issue of social inequality and exclusion, which emerged in Mombasa through concerns about begging, negative attitudes, and marginalized populations, is also reflected in other regions. In Germany's Baltic coast, Albrecht and Lenz (2022) found that cruise tourism benefits were concentrated, leaving out informal workers and exacerbating social inequity. These disparities spurred movements toward green and cultural tourism that prioritize equity and local participation.

In Durban, South Africa, Mthembu and Khumalo (2023) found that low-income communities adjacent to cruise terminals experienced limited access to cruise benefits. This led local authorities to support township tourism and community-led initiatives, just as Mombasa residents called for greater inclusion in cruise-generated benefits through coastal handicraft markets and cultural tours.

4.4 Reliability of the Research Instrument

Reliability of the variables of the study was assessed using Cronbach's alpha coefficients. Cronbach Alpha was used as a measure of internal consistency. The summary of reliability test results is shown in Table 4.11.

Table 4.11 Reliability Statistics

	Cronbach's Alpha	N of Items
Coastal destination diversification	.873	16
Environmental impact	.874	15
Economic impact	.866	11
Social impact	.857	12
Overall	.946	54

All the variable constructs used recorded Cronbach's alpha reliability coefficient of above 0.7; with coastal destination diversification (.873), Environmental impact (.874), Economic impact (.866) and Social impact (.857). The overall Cronbach's alpha coefficients of all the 54 statements had a coefficient of 0.946. All the statements in the construct had exceeded the recommended Cronbach's alpha coefficients of 0.70 demonstrating good internal consistency. The findings showed that the scales for all the independent and dependent variable were reliable since they met the Cronbach's alpha value threshold of 0.7 recommended (Dzwigol and Dzwigol-Barosz 2018).

4.5 Validity of the Research Instrument

Factor analysis was employed in this regard to help in identifying the actual number of factors that actually measured each construct as perceived by the respondents. In addition, the validity of the instrument was measured using Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) and Bartlett's test of sphericity to test whether a relation between the study variables exists. Kaiser- Mayor- Oklin value of >.5 and p-value <0.5 was acceptable. The Bartlett's test of sphericity was used as a test of the adequacy of the correlation matrix whereby it tests the null hypothesis that the correlation matrix has all diagonal elements as 1 and non-diagonal elements as 0.

The principal component analysis with varimax rotation was conducted on all variables to extract factors from the scales of each construct. Varimax rotation was used to validate the five variables that are distinct. The principle component analysis and Varimax rotation were performed in all the items and those with factor loadings lower than 0.50 were eliminated as postulated by Hair *et al.* (2006). In this study, factor analysis was used to validate whether the statements in each variable loaded into the expected categories. All items were loaded into their various underlying

variable structure dimensions. All items loading below 0.50 were deleted and those with more than 0.50 loading factor retained (Daud, 2014). After performing the factor analysis of each variable, the statements retained were computed to create a score and subjected to inferential analysis.

4.5.1 Coastal Destination Diversification Factor Analysis

The factor analysis results of coastal destination diversification, indicated that the KMO was 0.855 and the Bartlett's Test of sphericity was significant ($p<.05$) and a chi square of 2047.35 (Table 4.12).

Table 4.12: Rotated Factor Matrix on For Coastal Destination Diversification

			Component		
			1	2	3
Cruise tourism destinations have different economic attributes and facilities which has implications for cruise tourism size			.763		
Destination provide opportunities for cruise passengers experience the landscape, people, way of life, culture and food enjoyed by the local community			.707		
It provides saleable products and services that meet visitors' needs and expectations			.681		
Destinations understand cruise line itineraries and how they may influence cruise lines and the pattern of passenger spending			.670		
Access of (ferry terminal, airports, roads and rail) are linked to cruise tourism			.660		
The cruise passenger experiences have been developed outside the regular tourism offering			.651		
Deployment should be done in isolation, while cruise lines are optimizing itineraries to maximize guest appeal,			.612		
It is about creating and maintaining cruise passenger experiences			.586		
The county government has put in place product development initiatives to meet current and future cruise passenger needs and expectations				.894	
The attractions (natural & man made) are linked to cruise tourism				.828	
Accommodation and hospitality services are linked to cruise tourism				.788	
The amenities (ATMs, F&B outlets, public toilets, health facilities) are linked to cruise tourism				.779	
Recipients of cruise tourism should be informed about the development of a destination management plan and its outcomes.					.757
Destinations need to work together to develop their differentiated value proposition.					.742
Ports should have access for cruise lines, sufficient berths and the capability to accommodate larger ships in the future.					.679
Demand or supply driven catalyst is changing the cruise passenger profile					.618
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.855		
Bartlett's Test of Sphericity	**Approx. Chi-Square**		2047.35		
		df	120		
		Sig.	.000		
Total Variance Explained					
Rotation Sums of Squared Loadings	**Total Initial Eigenvalues**				
			3.853	2.947	2.909
		% of Variance	24.083	18.42	18.182
		Cumulative %	60.685		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations

The Varimax rotated principle component resulted in three factors loading on coastal destination diversification variable that explained 60.685% of variance with component one explaining 24.083%, component two 18.42% and component three18.182. All the 16 statements explaining coastal destination diversification, were retained computed and renamed destination diversification for further analysis.

4.5.2 Factor Analysis for Environmental Impact

On the environmental impact variable, the factor analysis results showed three components with eigen values greater than 1.0 and the total variance explained of 63.233% of variance with component one explaining 29.554%, component two 19.33% and component three 14.348% as shown in Table 4.13.

Table 4.13: Rotated Factor Matrix on for Environmental Impact

		Component		
		1	2	3
Cruise ship improving technology to protect the environment		.831		
Development of attraction sites that promote conservation		.807		
Atmospheric pollution by the fumes generated by the combustion of the engines		.801		
There is protection of natural resources and endemic species		.738		
Improving sustainability and building a positive image of the destination		.732		
Development of eco-tourism e.g. biking, hiking, etc.		.727		
As a result of cruise visitation, villages are cleaner and more attractive to the community		.666		
Exploitation of natural resources e.g. birds			.796	
Concentration of population in one area			.789	
Anchorage damage to the seabed			.778	
Transfer of passenger attitudes towards environmental protection			.731	
Government develops regulations to improve the environment and provide funding for this			.557	
Contamination of solid and liquid waste generated by cruise ships				.803
There has been waste management				.763
Damage to natural resources and endemic species				.634
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.855		
Bartlett's Test of Sphericity		1965.54		
Approx. Chi-Square				
df		105		
Sig.		.000		
Total Variance Explained				
Rotation Sums of Squared Loadings	**Total Initial**	4.433	2.900	2.152
Eigenvalues				
% of Variance		29.554	19.332	14.348
Cumulative %		63.233		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

The KMO measure of sampling adequacy of 0.855 indicating sufficient inter-correlation, while the Bartlett's Test of sphericity was significant (Chi-square 1965.54, p=0.001). All the 15 statements were retained computed and renamed environmental for further analysis.

4.5.3 Factor Analysis for Economic Impact

On the economic impact variable, the factor analysis results showed two components with eigen values greater than 1.0 and the total variance explained was 60.355% as shown in Table 4.14.

Table 4.14: Rotated Factor Matrix on for Economic Impact

		Component	
		1	2
Improvement of quality of life of the local community		.863	
New product development		.861	
Less services consumed in destination e.g. hotels, restaurants		.721	
Infrastructure development		.711	
Distribution of income		.595	
Inconsistency of cruise passenger spending impacts experience i.e. shops close when ships are in port		.594	
New business start-ups in tourism services and activities		.575	
Income to local communities e.g. landowner sites, carvers, crafts, artefact's, dancers, guides, cultural groups, tour operators, etc.			.851
Development of direct and indirect employment			.832
Empowering women to start and run own business			.762
Economic benefit to government and SMEs e.g. retailers, transport providers, tour operators, etc.			.754
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843	
Bartlett's Test of Sphericity	Approx. Chi-Square	1364.22	
	df	55	
	Sig.	.000	
Total Variance Explained			
Rotation Sums of Squared Loadings	**Total**		
	Initial Eigenvalues		
		3.645	2.994
	% of Variance	33.140	27.215
	Cumulative %	60.355%	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

The KMO measure of sampling adequacy of 0.843 indicating sufficient inter-correlation, while the Bartlett's Test of sphericity was significant (Chi-square 674.30,

p=0.001). All the 11 statements were retained, computed and renamed economic for further analysis.

4.5.4 Factor Analysis for Social Impact

Social impact statements were subjected to factor analysis one component with Eigen values greater than 1 were extracted which cumulatively explained 74.564% of variance as shown in (Table 4.15). The social impact indicated that the KMO was 0.764 and the Bartlett's Test of sphericity was significant (p<.05) and chi square (1570.91). No statements were deleted and all the 12 statements retained, computed and renamed social for further analysis.

Table 4.15 Component Matrix[a] for Social Impact

	Component			
	1	2	3	4
Cultural exchange between locals and visitors	.855			
Reduces poverty and prostitution	.839			
Development of security within the port	.782			
Local behaviour e.g. begging, poor social attitudes		.823		
Foreign culture influence and change local community		.812		
City traffic jams, congestion impacting locals		.799		
Improved quality of life for the community			.915	
Preserve local culture and heritage by sharing with tourists			.816	
Improve infrastructure within destination surroundings the port			.735	
Community support in remote locations e.g. medical, education, donations				.847
All transport diverted to cater for cruise tourists				.821
Incidents of insecurity to cruise tourists.				.699
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.764			
Bartlett's Test of Sphericity Approx. Chi-Square	1570.91			
df	66			
Sig.	.000			
Total Variance Explained Rotation Sums of Squared Loadings Total Initial Eigenvalues	2.306	2.298	2.263	2.08
% of Variance	19.218	19.151	18.858	17.336
Cumulative %	74.564			

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations

4.6 Correlation Analysis of the Variables

Correlation analysis was used to enable the relationship between a dependent variable and an independent variable (Saunders et al., 2019). The strength and direction of relationship between two variables was determined by computing correlation analysis. The Pearson Moment Correlation Coefficient (r) was used to establish the association among the variables used in the study as summarized in Table 4.16.

Table 4.16 Correlation Analysis of the Variables

		Coastal destination diversification	Environmental impact	Economic impact	Social impact
Coastal destination diversification	Pearson Correlation	1			
	Sig. (2-tailed				
Environmental impact	Pearson Correlation	.849**	1		
	Sig. (2-tailed	.000			
Economic impact	Pearson Correlation	.662**	.640**	1	
	Sig. (2-tailed	.000	.000		
Social impact	Pearson Correlation	.403**	.375**	.391**	1
	Sig. (2-tailed	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).
b. Listwise N=268

The findings showed that there was a significant positive and strong relationship between environmental impact (r= 0.849, p =0.000) and coastal destination diversification. This implies that the more there was coastal destination diversification the environmental impact increased. There was a significant positive relationship between economic impact (r= 0. 793, p =0.000) and coastal destination diversification. This indicated that an increase in economic impact there was a corresponding increase in coastal destination diversification. There was a significant positive and weak relationship between social impact (r= 0.403, p =0.000) and coastal destination diversification. This showed the more the adoption of cruise ship led to increase in coastal destination diversification.

4.7 Testing of Assumptions of Multiple Regressions

The variables statements were positively worded were coded and entered into SPSS (version 26) in order to test the assumptions of multiple regression. Data for these variables were consequently examined for multiple regression assumptions; normality, linearity, homoscedasticity, autocorrelation and multicollinearity.

4.7.1 Testing for Assumption of Normality

The assumption is based on the shape of normal distribution and the researcher tested this assumption through several pieces of information: visual inspection of data plots and P-Plots (Osborne & Waters, 2002). Data cleaning was important in checking this assumption through the identification of outliers. The statistical software employed has tools designed for testing this assumption. Normality was further checked through histograms of the standardized residuals (Stevens, 2009) was used as summarized in Figure 4.1. Response scores for items measuring these variables were first summed and then averaged to yield the score for a particular variable. The variables were therefore adjudged to be normally distributed.

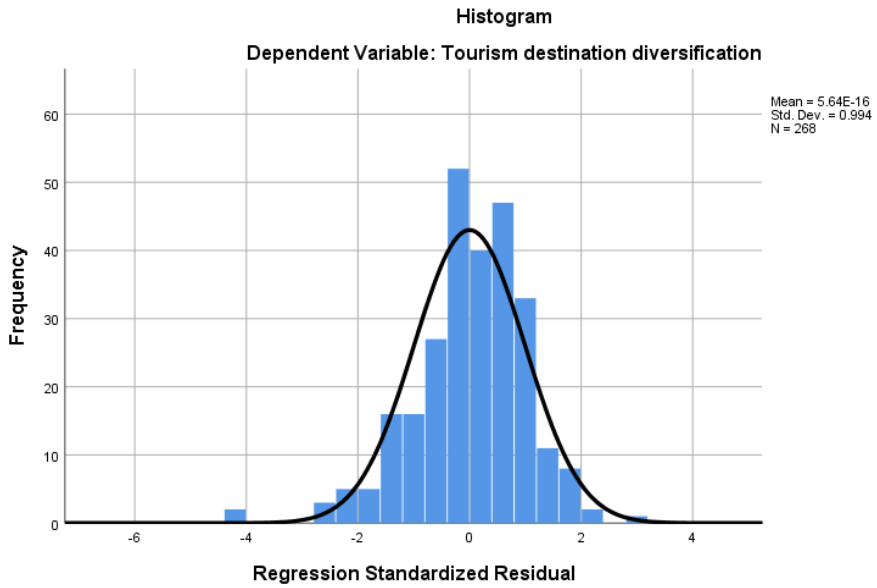

Figure 4.1: Normality

4.7.2 Testing for the Assumption of Linearity

Linearity is the assumption that a straight-line relationship exists between two variables (Tabachnick & Fidell, 2013). Testing for linearity was deemed necessary since linearity is an assumption of regression which must be satisfied. Residual plots showing the standardized residuals and the predicted values were used to establish linearity as shown in Figure 4.2.

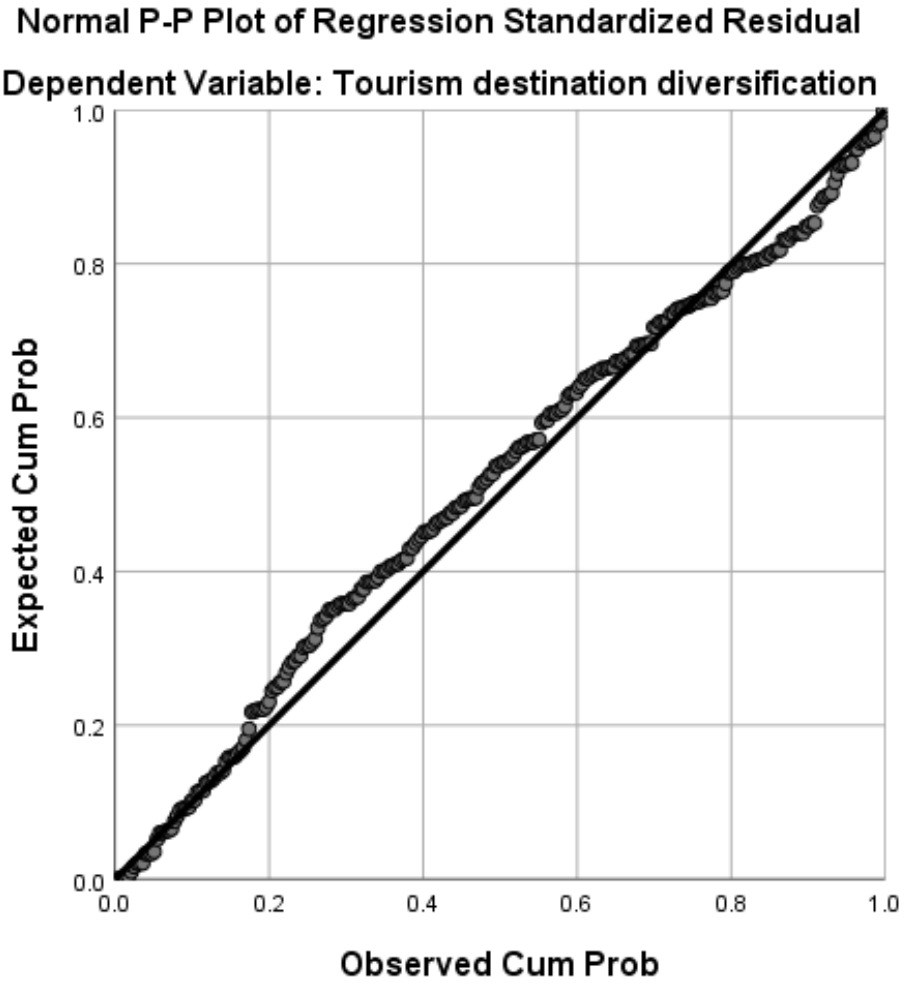

Figure 4.2 Linearity

In-depth examination of the residual plots and scatter plots available in SPSS statistical software packages indicated linear vs. curvilinear relationships. Any systematic pattern or clustering of the residuals suggests violation (Stevens, 2009).

4.7.3 Testing for Homoscedasticity

Homoscedasticity applies to multiple regressions and as noted by Tabachnick and Fidell, (2013), assumes uniform variability in scores for dependent variable in relation to the independent variables. Specifically, statistical software scatterplots of residuals with independent variables were used for examining this assumption (Keith, 2006). Homoscedasticity was checked using the standardized residual scatter plot (Figure 4.3). Testing for homoscedasticity was necessitated by the use of multiple regression as the principal inferential statistical approach.

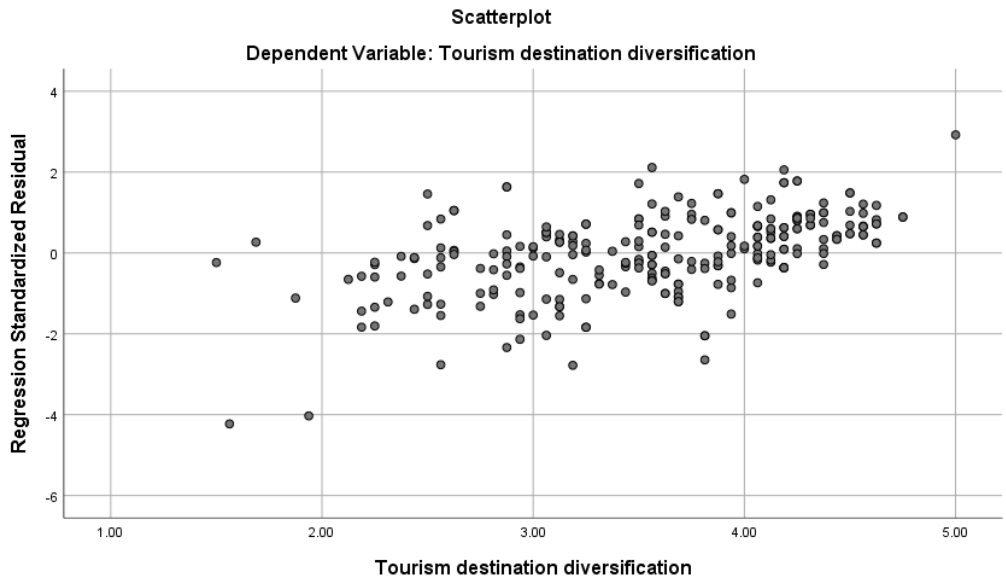

Figure 4.3 Homoscedasticity

The assumption of homoscedasticity refers to equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This means that the study assumed that errors are spread out consistently between the variables (Keith, 2006).

4.7.4 Testing for Autocorrelation

Independence of errors was therefore tested using the Durbin-Watson statistic which is regarded as a measure of autocorrelation of errors when the order of cases is factored in (Tabachnick & Fidell, 2013). Under this test, the critical values of 1.5 < d

< 2.5 were used to examine presence of autocorrelation. Results in Table 4.17 reveal that the Durbin-Watson statistic d=1.692 was between the two critical values and hence there was no first order linear auto-correlation in our multiple linear regression data. Consequently, a Durbin-Watson statistic lying within the two critical values was deemed to signify lack of first order linear auto-correlation in our multiple linear regression data.

Table 4.17: Autocorrelation Diagnostics

Model	Durbin-Watson
1	1.692[a]

a. Predictors: (Constant), Social impact, Environmental impact, Economic impact
b. Dependent Variable: Coastal destination diversification

4.7.5 Testing for Multicollinearity

Multicollinearity is identified as a situation where independent variables or predictors are highly correlated among themselves (Vatcheva *et al.,* (2016). To test for multicollinearity, the Variance Inflation Factor (VIF) and tolerance was used. The rule of thumb for VIF value should be less than ten and tolerance should be greater than 0.2 (Keith, 2006; Shieh, 2010) as shown in Table 4.18. Results showed that all the VIF values were below the threshold values indicating that multicollinearity was not an issue in the present study.

Table 4.18: Collinearity Diagnostics

Model		Collinearity Statistics	
		Tolerance	VIF
1	Environmental impact	.572	1.747
	Economic impact	.564	1.772
	Social impact	.821	1.218

a. Dependent Variable: Coastal destination diversification

4.8 Linear Regression

The researcher did a linear regression analysis so as to test relationship among variables. The research applied the statistical package for social sciences (SPSS V26) to code, enter and compute the measurements of the linear regressions for the study. The model summary Coefficient of determination explains the extent to which changes in dependent variable was explained by the change in the independent variables or the percentage of the variation in the dependent variable (coastal destination diversification) that is explained by independent variables (Cruise tourism).

4.8.1 Effect of Environmental Impact of Cruise Tourism on Coastal Destination Diversification

The study sought to analyze the relationship between environmental impact of cruise tourism and coastal destination diversification. The independent variable (environmental impact of cruise tourism) was regressed on the dependent variable (coastal destination diversification). Results in Table 4.19 indicate that environmental impact of cruise tourism explains 72% (R^2= .720) of the total variations in the coastal destination diversification. These results confirm the output of the correlation in Table 4.16 that a positive and significant relationship exists between environmental impact of cruise tourism and coastal destination diversification

Table 4.19: Model Summary on Environmental Impact of Cruise Tourism

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.720	.719	.37421

a. Predictors: (Constant), Environmental impact

The regression ANOVA model in Table 4.20 reveals an F statistic of 684.44 and a reported P value of 0.000. The P value is less than the alpha value (P < .05), the

proposed model is therefore statistically significant (good fit) in predicting the dependent variable.

Table 4.20: ANOVA on Environmental impact of cruise tourism

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	95.846	1	95.846	684.440	.000[b]
	Residual	37.249	266	.140		
	Total	133.095	267			

a. Dependent Variable: Coastal destination diversification
b. Predictors: (Constant), Environmental impact

The β coefficients for the independent variable was generated from the model, used to identify whether the environmental impact of cruise tourism as a predictor made a significant contribution to the model. Table 4.21 gave the estimates of β-value and the contribution of predictor to the model.

Table 4.21: Coefficients on Environmental impact of cruise tourism

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.176	.131		1.339	.182
	Environmental impact	.899	.034	.849	26.162	.000

a. Dependent Variable: Coastal destination diversification

From the results of the Table 4.21, the regression equation model was fitted. Since the constant value is significant, the study interpreted the unstandardized beta coefficients. The estimated model becomes:

$Y = 0.176 + 0.899 X_1 + Ɛ$…… Equation 1

Where;

Y= Coastal destination diversification, X_1= Environmental impact of cruise tourism

The β coefficients for the independent variable were generated from the model, in order to test the hypotheses of the study. The decision rule for testing this hypothesis was reject H_0 if $p<0.05$ or do not reject if otherwise.

Hypothesis (H_{01}): There is a significant effect of environmental impact of cruise tourism on coastal destination diversification

To test this hypothesis, the environmental impact of cruise tourism variable was regressed on the coastal destination diversification variable. The study hypothesized that there was no significant relationship between environmental impact of cruise tourism and coastal destination diversification. The finding showed that there was a positive significant effect of environmental impact of cruise tourism (β=0.899, p=.000) on coastal destination diversification. Since P< 0.05 we reject the null hypothesis **(H_{O1})** and conclude that environmental impact of cruise tourism had significant relationship with coastal destination diversification. Therefore, a unit increase in environmental impact of cruise tourism led to 0.899 increase in coastal destination diversification.

The strong positive correlation ($r = 0.849$, $p = 0.000$) and linear regression results ($R^2 = 0.720$, $\beta = 0.899$, $p = 0.000$) from Mombasa confirm that environmental impacts significantly predict variations in coastal destination diversification. These findings align quantitatively with studies such as Sun, Zhang, and Ryan (2021) in *Xiamen and Hainan*, where regression analysis showed that water and air pollution significantly reduced tourist interest in alternative inland or cultural tourism, weakening the destination's diversification prospects.

Likewise, Mwangi and Omollo (2019) in Mombasa found through correlation and regression analysis that environmental damage to coral reefs and mangrove

ecosystems directly hindered investments in marine conservation tourism, eco-parks, and birdwatching tours. This supports the conclusion drawn from the current Mombasa county that each unit increase in environmental impact can significantly predict an increase in diversification—provided that the environmental responses are strategically managed and converted into sustainable tourism products.

The findings from Mombasa County strongly mirror global empirical evidence demonstrating that cruise tourism's environmental impacts are deeply intertwined with a destination's ability to diversify its tourism portfolio. While there are opportunities—such as technological innovation, environmental regulation, and eco-tourism development—there are also substantial threats including reef degradation, marine litter, air pollution, and habitat destruction. The relationship is therefore both causal and strategic: environmental degradation can limit diversification, but strategic environmental responses can stimulate it. The high β coefficient and significant R^2 in the regression model indicate that addressing environmental concerns is not optional but foundational to unlocking the full diversification potential of coastal tourism destinations in Mombasa.

4.8.2 Effect of Economic Impact On Coastal Destination Diversification

The study sought to determine the effect of economic impact on coastal destination diversification. The independent variable (economic impact) was regressed on the dependent variable (coastal destination diversification). Results in Table 4.22 indicate that economic impact explains 43.9% (R^2= 0.439) of the total variations in the coastal destination diversification. These results confirm the output of the correlation results that a positive and significant relationship exists between economic impact and coastal destination diversification.

Table 4.22: Model Summary on Economic Impact and Coastal Destination Diversification

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.662[a]	.439	.436	.53003

a. Predictors: (Constant), Economic impact

The regression ANOVA model in Table 4.23 reveals an F statistic of 207.76 and a reported P value of 0.000. The P value is less than the alpha value (P < .05), the proposed model is therefore statistically significant (good fit) in predicting the dependent variable.

Table 4.23 ANOVA on Economic Impact and Coastal Destination Diversification

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.367	1	58.367	207.762	.000[b]
	Residual	74.728	266	.281		
	Total	133.095	267			

a. Dependent Variable: Coastal destination diversification
b. Predictors: (Constant), Economic impact

Consequently, the value of regression weights shown in Table 4.24 indicates that economic impact had a significantly positive influence (β_2=0.624; P < .000) on the Coastal destination diversification. From the results of the Table 4.21, the regression equation model was fitted.

Table 4.24 Coefficients; Economic Impact and Coastal Destination Diversification

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.359	.156		8.707	.000
	Economic impact	.624	.043	.662	14.414	.000

a. Dependent Variable: Coastal destination diversification

Since the constant value was significant, the study interpreted the unstandardized beta coefficients. The estimated model becomes:

$Y = 1.359 + 0.624X_2 + \varepsilon$……..…...…… Equation 2

Where; Y= Coastal destination diversification, X_2= Economic impact

The β coefficients for the independent variable were generated from the model, in order to test the hypotheses of the study.

Hypothesis (H_{02}): There is no significant influence of economic impact on coastal destination diversification

To test this hypothesis, the economic impact variable was regressed on the coastal destination diversification. The study hypothesized that there was no significant relationship between economic impact and coastal destination diversification. The finding showed that the influence of economic impact on coastal destination diversification was positive (β_2=0.624). This implies that we reject the null hypothesis (**H_{O2}**) and indicate that economic impact had a positive relationship with coastal destination diversification. Therefore, a unit increase in economic impact led to a 0.624 increase coastal destination diversification.

Statistically, the correlation between economic impact and coastal destination diversification in the Mombasa county shows a strong, significant relationship. This is consistent with the regression results showing that economic impact explains 43.9% (R^2 = 0.439) of the variation in tourism diversification. This level of explanatory power is comparable to empirical research by Papathanassis and Beckmann (2020), who conducted a longitudinal panel study across Spain, Italy, and Greece. They found that ports that reinvested cruise earnings in other tourism sectors—such as wellness and cultural events—experienced significantly greater diversification success.

The β coefficient of 0.624 in Mombasa indicates that for every unit increase in economic impact, there is a 0.624 increase in diversification, supporting the rejection of the null hypothesis. This aligns with Tapia and Rivas (2021) in *Valparaiso, Chile*, whose regression analysis revealed that cruise-related income supported tourism ventures such as vineyard tours and handicraft markets, promoting a shift away from cruise-only dependency.

4.8.3 Effects of social impact on coastal destination diversification.

The study sought to determine the effect of social impact on coastal destination diversification. The independent variable (social impact) was regressed on the dependent variable (coastal destination diversification). Results in Table 4.25 indicate, social impact explains 16.3% (R^2= 0.163) of the total variations in the coastal destination diversification. These results confirm the output of the correlation results that a positive and significant relationship exists between social impact and coastal destination diversification.

Table 4.25: Model Summary on Social Impact and Coastal Destination Diversification

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403[a]	.163	.159	.64730

a. Predictors: (Constant), Social impact

The regression ANOVA model in Table 4.26 reveals an F statistic of 51.652 and a reported P value of 0.000. The P value is less than the alpha value (P < .05), the proposed model is therefore statistically significant (good fit) in predicting the dependent variable.

Table 4.26: ANOVA of Social Impact and Coastal Destination Diversification

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.642	1	21.642	51.652	.000[b]
	Residual	111.453	266	.419		
	Total	133.095	267			

a. Dependent Variable: Coastal destination diversification
b. Predictors: (Constant), Social impact

Consequently, the value of regression weights shown in Table 4.27 indicates that social impact had a significantly positive influence (β_3=0.484 P < .000) on the Coastal destination diversification. From the results of the Table 4.27, the regression equation model was fitted. Since the constant value is significant, the study interpreted the unstandardized beta coefficients. The estimated model becomes:

$Y = 1.678 + 0.484X_3 + \varepsilon$……..…...…… Equation 3

Where;

Y= Coastal destination diversification, X_3= Social impact

Table 4.27: Coefficients of Social impact

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	**Std. Error**	**Beta**		
1	(Constant)	1.678	.265		6.339	.000
	Social impact	.484	.067	.403	7.187	.000

a. Dependent Variable: Coastal destination diversification

The β coefficients for the independent variable were generated from the model, in order to test the hypotheses of the study.

Hypothesis (H_{03}): There is no significant influence of Social impact on Coastal destination diversification

To test this hypothesis, the social impact variable was regressed on the Coastal destination diversification. The study hypothesized that there was no significant relationship between social impact and coastal destination diversification. The findings established that social impact had significant influence on coastal destination diversification since the p-value obtained (0.000) was less than the selected level of significance (0.05). The finding showed that the influence of social impact on coastal destination diversification was positive (β_3=0.484). This implies that we reject the null hypothesis **(H_{O3})** and conclude that social impact had a positive significant influence on coastal destination diversification. A unit increase in social impact led to a 0.484 increase in coastal destination diversification.

The quantitative analysis showed that social impact explains 16.3% of the variance (R^2 = 0.163) in coastal destination diversification, a significant but relatively modest contribution. This is consistent with similar studies that emphasize the indirect and context-dependent nature of social factors in tourism diversification. For example, Eide and Kvamme (2021) in Norway found that resident dissatisfaction with crowding and pressure on services led to strategic shifts toward fjord tourism and nature-based experiences, validating the idea that social discontent can be a powerful catalyst for diversification. Furthermore, the regression coefficient (β = 0.484) in the study confirms that an increase in social impacts is significantly associated with an increase in destination diversification, reinforcing findings from Mancuso and Romano (2023) in Palermo, Italy, where gentrification and social tensions drove urban renewal projects and support for intangible heritage tourism.

The findings reveal that social impacts of cruise tourism are multifaceted, encompassing positive changes such as infrastructure improvement, poverty alleviation, and cultural exchange, alongside challenges like congestion, behavioral shifts, and cultural degradation. These findings are consistent with a wide range of international studies that demonstrate how community perceptions, cultural resilience, and social inclusion are critical in shaping coastal tourism diversification strategies.

The statistically significant but weak relationship observed ($r = 0.403$; $\beta = 0.484$) reflects this complexity. While social factors alone may not drive diversification as strongly as economic or environmental forces, they play an essential enabling role, especially in guiding sustainable and inclusive development practices. For Mombasa and similar coastal destinations, this underscores the importance of community engagement, cultural preservation, and social equity in shaping tourism policies that extend beyond cruise tourism toward diverse, resilient, and community-driven tourism economies.

4.8.4 Summary of Hypotheses Results

A summary of the hypothesis testing was done using linear regression, together with the conclusions thereof are shown in Table 4.28. Hypotheses Ho_1, Ho_2 and Ho_3 were rejected because the p values were less than 0.005.

Table 4.28: Summary of Hypotheses Results

Hypothesis	β-value	P-value	Results
H_{01}: There is a significant effect of environmental impact of cruise tourism on coastal destination diversification	β_1=0.899	.000	Rejected
H_{02}: There is no significant influence of economic impact on coastal destination diversification	β_2=0.624	.000	Rejected
H_{03}: There is no significant influence of Social impact on Coastal destination diversification.	β_3=0.484	.000	Rejected

4.9 Multiple Regression Analysis

The regression coefficient summary was then used to explain the nature of the relationship between the dependent and independent variables. In this section the coefficient of determination (R square) was used as a measure of the explanatory power, to show how the independent variable explains the dependent variable. Adjusted R square was used as a measure of explanatory power of the independent variable in exclusion of the dependent variable. The F statistics (ANOVA) was used as a measure of the model goodness of fit. The regression coefficient summary was used to explain the nature of the relationship between the dependent and independent variable. The researcher used multiple regression analysis to answer the main objective of the study.

4.9.1 Overall Model Summary

A multiple regression model was used to explore the impact of Cruise tourism initiative on coastal destination diversification in Mombasa County. The R^2 represented the measure of variability in coastal destination diversification that Cruise tourism accounted for. From the model, (R^2 = 0.748) showing that Cruise tourism account for 74.8% variation in coastal destination diversification in Mombasa County as shown in Table 4.29.

Table 4.29: Overall Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865[a]	.748	.745	.35652

a. Predictors: (Constant), Social impact, Environmental impact, Economic impact

The predictors used in the model captured the variation in the coastal destination diversification in Mombasa County. The model caused adjusted R^2 to change from zero to .745. This implies that holding different variables constant, the Cruise tourism

will determine 74.5% of the variations in the coastal destination diversification in Mombasa County.

4.9.2 Analysis of Variance

The analysis of variance was used to test whether the model could significantly fit in predicting the outcome than using the mean as shown in (Table 4.30). The regression model with Cruise tourism as a predictor was significant (F=261.037, p value =0.001) shows that there is a significant relationship between Cruise tourism and coastal destination diversification in Mombasa County.

Table 4.30: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	99.539	3	33.180	261.037	.000[b]
	Residual	33.556	264	.127		
	Total	133.095	267			

a. Dependent Variable: Coastal destination diversification
b. Predictors: (Constant), Social impact, Environmental impact, Economic impact

4.9.3 Regression Coefficients

To achieve the objectives of the study the beta coefficients and p-values were appropriately interpreted. The β-coefficient value for, environmental impact, economic impact and social impact had a positive coefficient, depicting positive relationship with coastal destination diversification in Mombasa County as summarized in the model as:

$Y = -0.178 + 0.747X_1 + 0.174\ X_2 + 0.080X_3 + \mathscr{E}$ ……...……...…… Equation 4

Where:

Y = Coastal destination diversification, X_1 = Environmental impact of cruise tourism, X_2 = Economic impact, X_3 = social impact, $\mathscr{E}$ = error term

From the findings the t-test associated with β-values was significant and the Coastal destination diversification as the predictor was making a significant contribution to the model. The coefficients results showed that the predicted coastal destination diversification in Mombasa County in relation to the independent was significant.

Table 4.31: Multiple Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.178	.164		-1.085	.279
	Environmental impact	.747	.043	.705	17.266	.000
	Economic impact	.174	.039	.185	4.497	.000
	Social impact	.080	.041	.067	1.951	.052

a. Dependent Variable: Coastal destination diversification

The β coefficients for Cruise tourism as independent variable were generated from the model, in order to test the hypotheses of the study. The t-test was used as a measure to identify whether the predictors were making a significant contribution to the model. Table 4.31 gave the estimates of β-value and the contribution of each predictor to the model. From the regression analysis there was a significant positive relationship between environmental impact of cruise tourism and coastal destination diversification in Mombasa County (β_1=0.747 and p =0.000). Therefore, an increase in environmental impact of cruise tourism led to improvement in coastal destination diversification in Mombasa County.

There was a significant positive relationship between economic impact and coastal destination diversification in Mombasa County (β_2=0.174 and p = 0.000). Therefore, an increase in economic impact led to a rise in coastal destination diversification in Mombasa County. From the results, when all the factors are held constant, a unit change in economic impact would increase coastal destination diversification in Mombasa County by 0.174 units.

The findings showed that there was a significant positive relationship between social impact and coastal destination diversification in Mombasa County (β_3=0.080 and p= .052). Therefore, a rise in social impact led to an increase in coastal destination diversification in Mombasa County. From the results, when all the factors are held constant, a unit change in social impact increase coastal destination diversification in Mombasa County by 0.080 units.

The extensive body of literature on cruise tourism and coastal destination diversification provides strong empirical support for the regression results observed in Mombasa County, where environmental, economic, and social impacts of cruise tourism were found to significantly contribute to the diversification of the region's tourism offerings (R^2 = 0.748). Each dimension—environmental, economic, and social—emerged as a significant predictor, reinforcing conclusions drawn from global and regional studies.

The strong positive coefficient for environmental impact (β = 0.747, p = 0.000) reflects a growing trend where environmental consequences of cruise tourism become a catalyst for sustainable tourism diversification. As demonstrated by Brida and Zapata (2020) in Cartagena, Colombia, cruise-related environmental pressures such as congestion and waste management triggered shifts toward alternative eco-friendly tourism models, including eco-tourism and cultural heritage tourism. Similarly, Russo and Scarnato (2021) found that environmental degradation in Barcelona prompted investment in community-based and slow tourism initiatives. These studies suggest that in destinations like Mombasa, rising environmental impacts may prompt a strategic shift toward lower-impact, environmentally responsible tourism products such as marine parks, coastal walking trails, and mangrove conservation tours, aligning with the local drive for diversified and sustainable growth.

The regression results showing a positive relationship between economic impact and destination diversification (β = 0.174, p = 0.000) are well supported by several studies. McElroy and Parry (2020), in their analysis of Caribbean island states, emphasized that while cruise tourism injected needed foreign capital, its high leakage rates motivated destinations to diversify into village-based tourism, culinary tours, and eco-treks to retain more local revenue. Similarly, Alrawadieh et al. (2022) found that in Dubai, cruise tourism played a major role in financing the expansion into desert tourism, marina leisure, and high-end shopping tourism, diversifying the city's tourism portfolio. In the case of Mombasa, the regression coefficient supports Okello and Gitau's (2023) findings that cruise-generated income encouraged investments in Swahili heritage trails, local artisan markets, and coastal ecotourism, contributing meaningfully to economic-driven diversification.

Although the regression output for social impact (β = 0.080, p = 0.052) was only marginally significant, it still indicated a positive influence of social dynamics on diversification. This echoes studies such as Nkwame and Kalume (2023) in Zanzibar, where cruise tourism's impact on local communities—both positive (employment) and negative (cultural commodification)—inspired the rise of culturally sensitive, community-based tourism, including spice tours and historical walks.

Likewise, Tapia and Rivas (2021) in Valparaiso, Chile reported that social tensions arising from cruise tourism concentration around the port led stakeholders to promote vineyard visits and hillside tours as alternative, more inclusive tourism models. In Mombasa, the slight significance of social impact supports the narrative that while social challenges exist, they are becoming critical stimuli for local cultural tourism, music events, and heritage preservation, which play a growing role in the region's diversification agenda.

The overall regression model's strength ($R^2 = 0.748$) suggests that the three dimensions of cruise tourism impacts collectively explain a substantial portion of the variance in tourism diversification in Mombasa. This mirrors findings from Papathanassis and Beckmann (2020), who demonstrated that coastal cities like Genoa, Barcelona, and Athens that channeled cruise tourism revenues into complementary sectors such as wellness, gastronomy, and festivals achieved higher levels of diversification and reduced dependency on cruise tourism alone.

In addition, Gibson and Thapa (2020) in PortMiami highlighted how cruise tourism indirectly triggered urban regeneration and heritage tourism development, while Marques and Pinto (2021) observed that cruise-driven overcrowding in Lisbon led to deliberate investments in offshore excursions and cultural events to mitigate pressure and expand tourism offerings. These examples are directly relevant to Mombasa's coastal development strategy, where the growing cruise sector is influencing the reorganization of tourism products and community priorities.

The regression findings in Mombasa County are consistent with global evidence indicating that cruise tourism acts as both a stimulus and a disruptor, triggering environmental, economic, and social responses that drive coastal destination diversification. Environmental impact appears to be the most influential factor, compelling shifts toward sustainable alternatives. Economic impact provides the financial capacity for tourism expansion, while social impact—though less significant—is emerging as a cultural and community-driven force supporting diversification.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter presents the summary of the findings, conclusions, its recommendations and suggestions of areas for further research.

5.1 Summary of Findings

From the descriptive findings most respondents had a favorable perception of coastal destination diversification. A majority agreed that it involves enhancing and maintaining cruise passenger experiences and offering products and services that meet visitors' expectations. Respondents also acknowledged that such experiences are often developed beyond the traditional tourism offerings and that destinations provide opportunities for visitors to engage with local culture, landscapes, and lifestyles.

Additionally, there was strong agreement that infrastructure such as ferry terminals, airports, roads, and hospitality services are linked to cruise tourism. Respondents recognized the economic attributes and facilities of cruise destinations as influencing the size and development of cruise tourism. It was also noted that destinations should align with cruise line itineraries and collaborate to develop unique value propositions. There was broad consensus on the importance of destination management planning and the need for ports to have adequate capacity to accommodate current and future cruise demands.

5.1.1 Effect of Environmental Impact of Cruise Tourism on Coastal Destination Diversification

From the descriptive findings most respondents had a positive perception regarding the environmental impact of cruise tourism. There was strong agreement that cruise

tourism contributes to the protection of natural resources and endemic species, the development of conservation-focused attractions, and the promotion of eco-tourism activities such as hiking and biking. Respondents also acknowledged advancements in cruise ship technology aimed at environmental protection and recognized cruise tourism's role in enhancing sustainability and the destination's image.

Respondents agreed that cruise tourism is associated with environmental challenges, such as damage to natural habitats, contamination from solid and liquid waste, anchorage-related seabed damage, and the exploitation of natural resources. They also indicated that cruise tourism has influenced environmental attitudes among passengers and prompted government intervention through regulations and funding to support environmental improvement.

Correlation analysis showed that there was a significant positive and strong relationship between environmental impact ($r= 0.849$, $p =0.000$) and coastal destination diversification. This implies that the more there was coastal destination diversification the environmental impact increased. Linear regression indicated that environmental impact of cruise tourism explains 72% ($R^2= .720$) of the total variations in the coastal destination diversification. The finding showed that there was a positive significant effect of environmental impact of cruise tourism ($\beta=0.899$, $p=.000$) on coastal destination diversification. Since $P< 0.05$ we reject the null hypothesis **(H_{O1})** and conclude that environmental impact of cruise tourism had significant relationship with coastal destination diversification. Therefore, a unit increase in environmental impact of cruise tourism led to 0.899 increase in coastal destination diversification.

5.1.2 Effect of Economic Impact on Coastal Destination Diversification

From the descriptive findings most respondents perceived cruise tourism as having a positive economic impact on coastal destinations. There was general agreement that cruise tourism supports both direct and indirect employment, benefits the government and small and medium enterprises (SMEs), and generates income for local communities including artisans, cultural performers, and tour operators. Respondents also acknowledged that cruise tourism has empowered women to start and manage their own businesses. In addition, infrastructure development was recognized as a key outcome of cruise tourism. However, there were also concerns about the inconsistency in passenger spending patterns, which can affect local businesses, such as shops adjusting their operations to align with cruise ship schedules.

Correlation analysis indicated a significant positive relationship between economic impact (r= 0. 793, p =0.000) and coastal destination diversification. This indicated that an increase in economic impact there was a corresponding increase in coastal destination diversification. Linear regression indicated that economic impact explains 43.9% (R^2= 0.439) of the total variations in the coastal destination diversification. The finding showed that economic impact on coastal destination diversification was positive and significant (β_2=0.624). The null hypothesis (**H_{O2}**) was rejected. The economic impact had a positive relationship with coastal destination diversification. Therefore, a unit increase in economic impact led to a 0.624 increase coastal destination diversification.

5.1.3 Effects of Social Impact on Coastal Destination Diversification

From the descriptive findings revealed that respondents perceived cruise tourism as having a substantial social impact on coastal destinations. Most agreed that cruise tourism enhances infrastructure in areas surrounding the port and improves the overall

quality of life for local communities. It was also widely acknowledged that cruise tourism helps preserve local culture and heritage through interactions with tourists and fosters meaningful cultural exchange between residents and visitors.

However, some negative social outcomes were noted. These include increased traffic congestion, influence of foreign cultures on local traditions, and behavioral changes among locals such as begging or developing negative social attitudes toward tourists. Despite these concerns, respondents agreed that cruise tourism contributes positively by reducing poverty and prostitution in local areas. The results suggest that the social effects of cruise tourism are largely viewed as beneficial, although certain challenges exist. The descriptive analysis confirmed that the majority of respondents supported the statements measuring the social impact of cruise tourism.

Correlation analysis showed that there was a significant positive and weak relationship between social impact ($r= 0.403$, $p =0.000$) and coastal destination diversification. This showed the more the adoption of cruise ship led to increase in coastal destination diversification. Linear regression results indicated that, social impact explains 16.3% ($R^2= 0.163$) of the total variations in the coastal destination diversification. The findings established that social impact had significant influence on coastal destination diversification since the p-value obtained (0.000) was less than the selected level of significance (0.05). The finding showed that the influence of social impact on coastal destination diversification was positive ($\beta_3=0.484$). The null hypothesis **(H_{O3})** rejected and conclude that social impact had a positive significant influence on coastal destination diversification. A unit increase in social impact led to a 0.484 increase in coastal destination diversification.

5.1.4 Impact of Cruise Tourism on Coastal Destination Diversification

A multiple regression model was used to explore the impact of cruise tourism on coastal destination diversification in Mombasa County. From the multiple regression model, (R^2 = 0.748) showing that cruise tourism account for 74.8% variation in coastal destination diversification in Mombasa County. The β-coefficient value for, environmental impact, economic impact and social impact had a positive coefficient, depicting positive relationship with coastal destination diversification in Mombasa County. From the findings the t-test associated with β-values was significant and the coastal destination diversification as the predictor was making a significant contribution to the model. The coefficients results showed that the predicted coastal destination diversification in Mombasa County in relation to the independent was significant.

From the regression analysis there was a significant positive relationship between environmental impact of cruise tourism and coastal destination diversification in Mombasa County (β_1=0.747 and p =0.000). Therefore, an increase in environmental impact of cruise tourism led to improvement in coastal destination diversification in Mombasa County. There was a significant positive relationship between economic impact and coastal destination diversification in Mombasa County (β_2=0.174 and p = 0.000). Therefore, an increase in economic impact led to a rise in coastal destination diversification in Mombasa County.

The findings showed that there was a significant positive relationship between social impact and coastal destination diversification in Mombasa County (β_3=0.080 and p= .052). Therefore, a rise in social impact led to an increase in coastal destination diversification in Mombasa County. From the results, when all the factors are held

constant, a unit change in social impact increase coastal destination diversification in Mombasa County by 0.080 units.

5.2 Conclusion

The study concluded that the relationship between the environmental impact of cruise tourism and coastal destination diversification in Mombasa County was statistically significant. As cruise tourism activities expand the environmental impacts intensify. The environmental changes brought about by cruise tourism play a major role in shaping how coastal destinations evolve and diversify, potentially as an adaptive or mitigating strategy.

The study concluded that economic impact of cruise tourism had significant effect on coastal destination diversification in Mombasa County. The enhancements in the economic gains from cruise tourism—such as employment creation, local business growth, and increased tourist spending—contribute meaningfully to the diversification of coastal destinations.

The study concluded that the adoption of cruise tourism has contributed positively to coastal destination diversification through its social impact. The social effects of cruise tourism—such as cultural exchanges, improved social infrastructure, and increased local community interactions—positively influence the diversification of coastal destinations. The social impact though less dominant than environmental or economic aspects, play an important complementary role in shaping destination diversification.

The study used a multiple regression overall model was strong, with cruise tourism accounting for 74.8% ($R^2 = 0.748$) of the variation in coastal destination diversification. All three dimensions of cruise tourism impact—environmental,

economic and social had positive relationships with coastal destination diversification. Environmental impact was the most dominant predictor, followed by economic impact, while social impact had a positive but marginal effect. This implies that cruise tourism not only contributes to economic and social development but also acts as a catalyst for spatial and thematic diversification of coastal tourism destinations, particularly through environmental change and infrastructure development.

5.3 Implications

The findings underscore the need for national and county governments to formulate and enforce comprehensive policies that regulate cruise tourism activities to mitigate their environmental impact while promoting sustainable diversification of coastal destinations. A coordinated approach involving environmental agencies, tourism boards, port authorities, and local governments is essential to harmonize tourism development with environmental conservation.

Tourism development policies should integrate environmental impact assessments (EIAs) as mandatory components in cruise tourism planning and coastal development to ensure that growth does not compromise ecological integrity. Policymakers should prioritize eco-tourism initiatives as part of the diversification strategy. This aligns environmental sustainability with economic benefits, attracting environmentally conscious travelers and preserving local ecosystems.

The findings support the need for policies that ensure the economic gains from cruise tourism are equitably shared and invested back into diversifying coastal destinations for long-term sustainability. Government and tourism boards should offer incentives for the development of innovative and diversified tourism products that align with local economic strengths and cultural uniqueness.

Policymakers should adopt pro-poor tourism policies that channel cruise tourism revenues into community development, job creation, and micro-enterprise support in coastal regions. Establish systems to continuously monitor the economic contributions of cruise tourism and assess how effectively these translate into diversified coastal destinations, allowing for evidence-based planning and adjustment.

Policymakers should integrate social sustainability objectives into cruise tourism development plans to ensure long-term benefits for host communities and promote socially inclusive destination diversification. Implement frameworks to safeguard local traditions and heritage from the risks of over-commercialization, ensuring that social impact remains a constructive force in coastal diversification.

Government and NGOs should invest in community-based tourism programs that encourage social innovation and allow residents to directly benefit from cruise tourism while enhancing destination variety. Establish systems to assess and monitor the social effects of cruise tourism on coastal communities. This will help inform policies that address potential social challenges and maximize positive impacts.

Develop a comprehensive policy framework that incorporates environmental sustainability, economic empowerment, and social inclusion as central pillars of cruise tourism development and coastal destination diversification. National and county governments should formulate and implement a deliberate destination diversification strategy that spreads cruise tourism benefits beyond central hubs (e.g., Mombasa port) to surrounding coastal areas.

Enforce strict environmental regulations for cruise ships and coastal developments to minimize negative impacts while ensuring the long-term attractiveness and resilience of the destination. Establish robust M&E systems to continually assess the

environmental, economic, and social impacts of cruise tourism and their effects on coastal diversification, enabling adaptive policy responses.

Invest in training and skills development for local communities to participate meaningfully in cruise tourism activities, especially in areas such as hospitality, cultural heritage presentation, and environmental stewardship.

5.4 Recommendations

Stakeholders, including cruise operators and tourism authorities, should invest in and enforce eco-friendly cruise tourism practices that reduce pollution, conserve marine biodiversity, and minimize ecological degradation.

The ministry of environment should establish robust environmental monitoring mechanisms to track the ecological impact of cruise tourism in real-time. This will inform timely interventions that support sustainable coastal development and diversification.

The local communities should be actively engaged in environmental conservation efforts and tourism planning to ensure that diversification initiatives are ecologically sound and culturally inclusive.

Mombasa county government should encourage investment in environmentally friendly infrastructure such as green ports, waste recycling facilities, and sustainable accommodation to balance tourism growth with environmental preservation.

County and national tourism authorities should develop programs that maximize the economic benefits of cruise tourism for local communities through training, entrepreneurship support, and capacity building.

Integrate local producers, artisans, and service providers into the cruise tourism value chain to ensure that the economic benefits are widely distributed and support grassroots diversification efforts.

Develop supportive infrastructure (e.g., ports, transport networks, and tourist facilities) that can absorb increased economic activity and stimulate the expansion of tourism offerings across diversified destinations. Facilitate partnerships with private investors and SMEs to boost investment in diverse tourism products, such as cultural heritage sites, eco-tourism, marine excursions, and craft markets.

Stakeholders should develop and promote cultural events, performances, and community interaction programs that enhance cultural diversity and attract varied tourist segments, thus supporting destination diversification.

Mombasa county government should involve local residents in tourism planning and cultural showcase activities to strengthen social cohesion and ensure that tourism enhances, rather than erodes, community values and traditions.

Mombasa county government should use cruise tourism revenues to upgrade public amenities such as health services, sanitation, and recreational facilities that benefit both tourists and host communities, making destinations more attractive and diversified.

Mombasa county government should educate tourists and local stakeholders on responsible tourism practices that respect local customs and promote positive social interactions.

Given the strong influence of environmental impact, there is a need for Mombasa county government to adopt sustainable environmental practices in cruise

operations—such as waste management, emission reduction, and conservation initiatives—that support long-term destination diversification.

Ministry of environment and Mombasa county government should strengthen the economic contributions of cruise tourism by integrating local businesses, artisans, and suppliers into the cruise tourism value chain to stimulate inclusive economic growth and further diversification.

Ministry of environment and Mombasa county government should increase community involvement in tourism development to boost the social benefits of cruise tourism. This includes promoting cultural tourism, improving local amenities, and fostering positive tourist-host interactions.

Ministry of environment and Mombasa county government should ensure that economic growth from cruise tourism does not compromise environmental sustainability. Development strategies should aim for a balanced approach that supports both economic benefits and environmental preservation.

5.5 Recommendations for Further Study

Areas for further research include:

Research should be undertaken to investigate the relationship between cruise tourism and adventure tourism since the former has an adventure aspect in nature. The cruising of the high waters while in large ships is literally adventurous and a research on the relationship between the two can give invaluable insights on the two types of tourism.

Research should be undertaken on the issue of tourism product diversification in cruise tourism. Products that can be diversified and consumed in cruise tourism are dependent on various factors such as the culture of the host country, economic

aspects, and environmental aspects among others. This area of product diversification can generate crucial data and information that can improve the tourism industry in Kenya.

A comparative research should be undertaken on the preference of tourists to travel in cruise ships and those who use airplanes. Findings from the study can reveal if they have similar or different preferences and this can assist a destination in policy formulation and product diversification.

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APPENDICES

Appendix I: Questionnaire

Dear Respondent,

I am a Maters student in Tourism Management at Moi University, Eldoret. I am conducting a study on **'The triple bottom line impact of cruise tourism on coastal destination diversification in Mombasa County.'** You have been selected as one of the respondents for this study. Kindly complete this questionnaire as honestly and precisely as possible to assist me get data. The information given is purely intended for academic purposes and will be treated with utmost confidentiality. Your participation is entirely voluntary and the questionnaire is completely anonymous. Your contribution in facilitating this study will be highly appreciated.

Thank you.

Section A: Background Information

Please read the questions carefully and tick* [√] *in the appropriate space

1. Gender: Male [ ] Female [ ]

2. What is your marital status?

Married [ ] Single [ ] Divorced [ ] Separated [ ]

3. Duration involved in cruise tourism

<1 year [ ] 1-5 years [ ] 6-10 years [ ] >10 years [ ]

4. Please indicate your age group.

18-25 years [ ] 26-35 years [ ] 36-45 years [ ] 46-55 years [ ] Over 55 years [ ]

5. What is your highest level of education?

Secondary [ ] Certificate [ ] Diploma [ ] University [ ] Postgraduate [ ]

Any other (Specify)…….

Section B: Coastal destination diversification

5. In the scale given below, *please tick* **[√]** *in the appropriate space* indicating your level of agreement with the following statements describing Coastal destination diversification. **Key: 1 = Strongly Disagree, 2 =Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree**

	1	2	3	4	5
It is about creating and maintaining cruise passenger experiences					
It provides saleable products and services that meet visitors' needs and expectations					
The cruise passenger experiences have been developed outside the regular tourism offering					
Destination provide opportunities for cruise passengers experience the landscape, people, way of life, culture and food enjoyed by the local community					
Access of (ferry terminal, airports, roads and rail) are linked to cruise tourism					
Accommodation and hospitality services are linked to cruise tourism					
The attractions (natural & man made) are linked to cruise tourism					
The amenities (ATMs, F&B outlets, public toilets, health facilities) are linked to cruise tourism					
The county government has put in place product development initiatives to meet current and future cruise passenger needs and expectations					
Demand or supply driven catalyst is changing the cruise passenger profile					
Cruise tourism destinations have different economic attributes and facilities which has implications for cruise tourism size					
Destinations understand cruise line itineraries and how they may influence cruise lines and the pattern of passenger spending					
Deployment should be done in isolation, while cruise lines are optimizing itineraries to maximize guest appeal,					
Destinations need to work together to develop their differentiated value proposition.					
Ports should have access for cruise lines, sufficient berths and the capability to accommodate larger					

ships in the future.					
Recipients of cruise tourism should be informed about the development of a destination management plan and its outcomes.					

Section C: Environmental impact of cruise tourism

6. In the scale given below, *please tick* [√] *in the appropriate space* indicating your level of agreement with the following statements describing Environmental impact of cruise tourism. Key: 1 = Strongly Disagree, 2 =Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

	1	**2**	**3**	**4**	**5**
There is protection of natural resources and endemic species					
Development of attraction sites that promote conservation					
Improving sustainability and building a positive image of the destination					
Development of eco-tourism e.g. biking, hiking, etc.					
Cruise ship improving technology to protect the environment					
As a result of cruise visitation, villages are cleaner and more attractive to the community					
Damage to natural resources and endemic species					
Atmospheric pollution by the fumes generated by the combustion of the engines					
There has been waste management					
Contamination of solid and liquid waste generated by cruise ships					
Anchorage damage to the seabed					
Exploitation of natural resources e.g. birds					
Concentration of population in one area					
Transfer of passenger attitudes towards environmental protection					
Government develops regulations to improve the environment and provide funding for this					

Section D: Economic impact of cruise tourism

7. In the scale given below, *please tick* [√] *in the appropriate space* indicating your level of agreement with the following statements describing Economic impact of cruise tourism. Key: 1 = Strongly Disagree, 2 =Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

	1	2	3	4	5
Development of direct and indirect employment					
Economic benefit to government and SMEs e.g. retailers, transport providers, tour operators, etc.					
Income to local communities e.g. landowner sites, carvers, crafts, artefact's, dancers, guides, cultural groups, tour operators, etc.					
Empowering women to start and run own business					
Infrastructure development					
Improvement of quality of life of the local community					
New product development					
New business start-ups in tourism services and activities					
Distribution of income					
Less services consumed in destination e.g. hotels, restaurants					
Inconsistency of cruise passenger spending impacts experience i.e. shops close when ships are in port					

Section E: Social impact of cruise tourism

8. In the scale given below, *please tick* **[√]** *in the appropriate space* indicating your level of agreement with the following statements describing Social impact of cruise tourism. **Key: 1 = Strongly Disagree, 2 =Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree**

	1	2	3	4	5
Improve infrastructure within destination surroundings the port					
Improved quality of life for the community					
Preserve local culture and heritage by sharing with tourists					
Development of security within the port					
Cultural exchange between locals and visitors					
Reduces poverty and prostitution					
Community support in remote locations e.g. medical, education, donations					
All transport diverted to cater for cruise tourists					
Incidents of insecurity to cruise tourists.					
City traffic jams, congestion impacting locals					
Foreign culture influence and change local community					
Local behaviour e.g. begging, poor social attitudes					

Thank you for your participation.

Appendix II: Questionnaire for tour operators and agents

1) a). Does Kenya have the potential for cruise tourism? Yes/No

b). If yes, state the potential_____

c). If no, explain why_____

2) What is the most current promising cruise tourism market for Kenya?

_____

_____

3) What factors do you think hinder the growth of cruise tourism in Kenya?

_____

_____

_____

4) What mitigation measures do you think can be adopted to curb the challenges?

_____

_____

5) What is the approximate number of cruise visitors you receive annually?

_____

6) Does cruise tourism seasonality impact on the tourism industry along the Kenyan coastline?

_____

_____

Appendix III: Questionnaire for tour guides

1. (a) Do you think Kenya has cruise tourism potential? Yes or No
   (b) If yes, name them

   _____

   _____

2. (a) Does seasonality affect cruise tourism along the Kenyan coast region? Yes or No
   (b) If yes, explain

   _____

   _____

3. What role do you play in promoting cruise tourism growth along the coast region in Kenya?

   _____

   _____

4. What challenges do you face while dealing with cruise tourists?

_____

_____

_____

5. How do you overcome the challenges faced?

_____

_____

_____

6. What factors influence the growth of cruise tourism in Kenya?

_____

_____

_____

7. In your own opinion what measures should be put in place towards improving cruise tourism growth in Kenya.

   _____

   _____

   _____

___

Appendix IV: Questionnaire for tourists

1. (a) Do you think Kenya has the potential for cruise tourism/ Yes ☐ No ☐
   (b) If yes, explain.

   _____
   _____
   _____

2. Why do you prefer cruise ships to other modes of transport?

   _____
   _____
   _____
   ___

3. Do you think the public and private tourism stakeholders play a major role in promoting cruise tourism growth in Kenya?

   _____
   _____
   _____
   _____

4. What do you suggest should be done to improve cruise tourism growth in Kenya?

   _____
   _____
   _____

5. What do you think of cruise tourism in Kenya as compared to other countries?

   _____
   _____
   _____
   ___

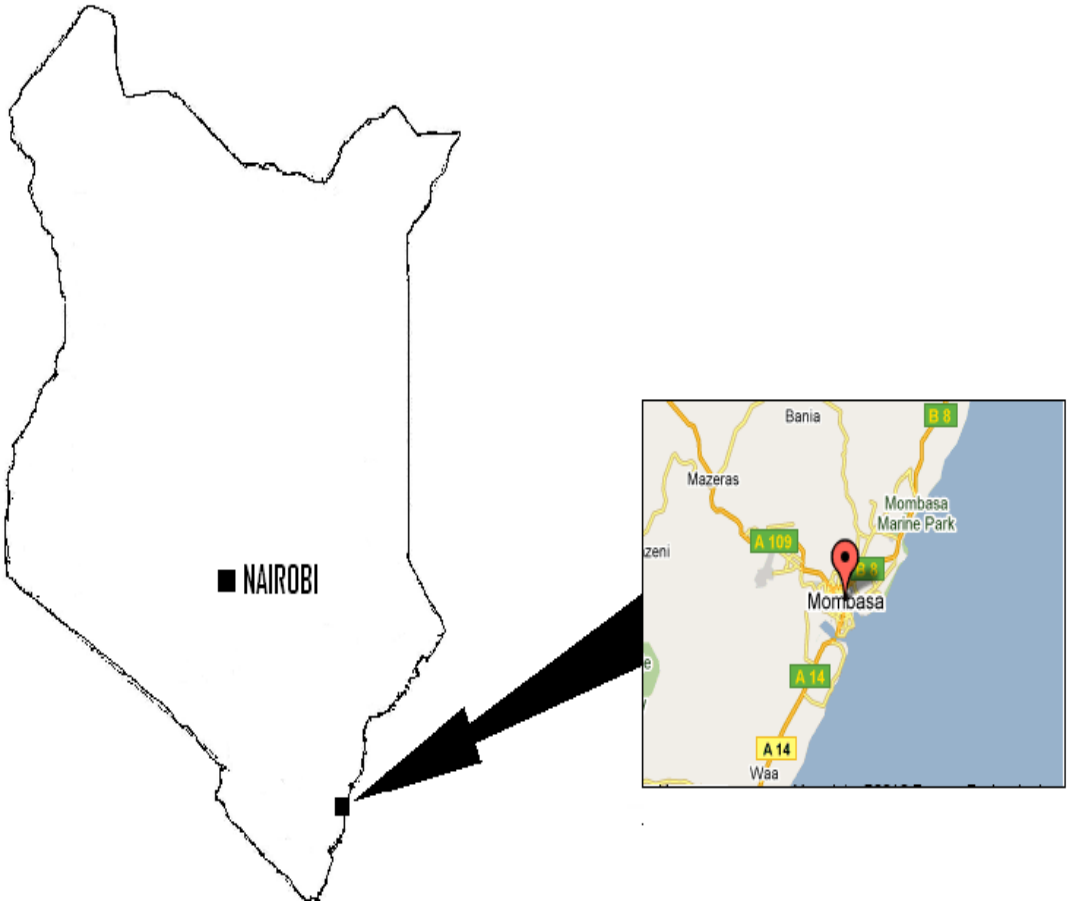
6. What are the challenges facing cruise tourism in Kenya?

   _____
   _____
   _____
   _____

7. What do you think are the possible remedies /solutions to the challenges?

   _____
   _____
   _____
   _____
   _____

Appendix IV: Map of Study Area



Appendix V: Plagiarism Certificate

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CERM-ESA Project Leader Date: 28/07//2025