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Economic Impacts of Covid-19 to the Tourism in Tanzania

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Abstract
For several years, the tourism industry has been regarded as an important sector in many developing countries including Tanzania, with significant positive effects on the country's economic growth. Tourism has contributed lots to the economy of the country through foreign exchange earnings, job opportunities, eradication of poverty, provision of social services and infrastructure improvements.In 2019 there was an outbreak of a disease (Corona Virus Disease) which was later announced as the Global pandemic in March 2020. The 2019 coronavirus disease (COVID-19) is a new respiratory disease transmitted through direct contact with respiratory droplets of an infected person (which in most cases are generated when a person coughs or sneezes). Individuals can also be infected by touching contaminated surfaces and touching their face (especially their nose or mouth).The outbreak of COVID-19 started in December 2019 and over a period of two months it spread to the world, leading to a large number of deaths (About 5.75 MIL deaths by the end of January 2022).The disease causes respiratory illness with symptoms such as cough, fever, and trouble breathing in more extreme cases leading to death .As a measure of controlling the spread .Many countries are introducing lockdown protocols to avoid the infection chain of this emerging disease.The measures taken to control the spread of the pandemic are suspected to affect the tourism economy in Tanzania and this is because tourism in Tanzania is largely depending on the foreigners and the temporary travel restrictions for most foreign countries has been a setback in receiving many visitors as it was before. This is why the researcher believes that an in-depth analysis is required to measure the economic impact of Corona Virus on Tanzania's tourism industry focusing on total number of tourists arrivals, employment and the income generated from this sector during these times of the pandemic.The researcher conducted a study using both secondary and primary data source from tourism authorities like TANAPA(Tanzania National Parks), TTB (Tanzania tourists board) as well as general stakeholders like art and crafts designers, Tour guides, tour drivers, Tour operators and Hotel owners in the tourist areas. The main instrument used for the primary data was personal interviews with the small businesses in the tourism sector (artists, designers and sellers) in Tanzania. Online surveys were also added to explore "opinions about the economic impacts of Covid19 on the tourism industry. Both interview questions and surveys designed using a structured approach. And secondary data was collected from the articles provided by the government authorities as mentioned above. Qualitative data was obtained through online interviews which was conducted through zoom while quantitative data will be obtained through an online survey which was created in Survey monkey and being spread online to the targeted samples. The Data collected were entered, tabulated and analyzed using SPSS package and Microsoft Excel 2007. The econometrics model, Simple and Multiple linear regression analysis were used to analyze quantitative data, in order to test statistically significance of variables in cooperating both descriptive and inferential statistics and quantitative and qualitative data were also presented in form of tables, charts and percentages through Microsoft excel and SPSS. The descriptive analysis showed that there are impacts of the global pandemic (Covid19) to the tourism industry in Tanzania. The pandemic has highly affected the number of tourist visiting Tanzania, according to the results from the research there has been (616,491 tourists) in 2020 compared to (1,527,230 visitors) recorded in the year ending December 2019.Apart from that the total income from the tourism sector has dropped by 59.2% to USD 1,061.6 million as compared to 2019. Lastly Employment in this sector has dropped from the expected 623,000 to 146,000 by the end of 2020, according to the results from the research from March to May 2020 24.29% were jobless. Also the regression analysis output reveals that Covid-19 has reduced incoming number of tourists by 353.172 thousand per year (2019 – 2020),Employment contributions from the tourism sector has dropped by 14.15% which supports the null hypothesis for this study whereby we predicted the negative effect of Covid-19 on the employment contributions and the total earnings from this sector is less by USD227.533 million which proves right the null hypothesis H0 that the COVID19 effect has a negative impact on the total earnings. Also the regression results shows a decline of 2.3% of the share of tourism sector in the National GDP growth.The analysis also showed that there are measures suggested to mitigate the situation however there is still a problem as most of these measures are not yet effectively implemented which could delay its significance, therefore the tourism sector could lose its potential to boost the economic development of Tanzania. Due to these reasons the researcher provided recommendations and suggested areas for further research.
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1. Introduction

Tanzania is country so wealthy that it would practically take years to document all the resources. Not only is the country proud to bear witness to the highest and largest free standing mountain in the world Mt Kilimanjaro but also to the rich and diverse wildlife concentrations, mineral and other resources available. If Africa's tourism opportunities were to be summarized by one single country that country would be Tanzania. It covers 945,234 sq. km made up 942,832 sq. km of mainland Tanzania and 2,400 Square kilometer of Zanzibar (Tourism, 2019). Tanzania is the only country in the World, which has allocated approximately 307,873 Km2 (32.5%) of its total area as protected areas which are under the management of the Ministry of Natural Resources and Tourism. These include 22 National Parks, 22 Game reserves, 42 Game Controlled Areas, 1 Ngorongoro Conservation Area, 463 Forest Reserves, 17 Nature Reserves, 7 Coastal Forests, 26 Government Forest plantations, 133 Cultural heritage sites, 7 Museums and 3 Ramsar Sites (Tourism, 2019). Apart from wildlife, reserves and historical sites, Tanzania has a varied geography, including deep and large freshwater and salt lakes, and Africa's highest point, Mount Kilimanjaro (5,895 m or 19,341 ft).

Tanzania is the 7th most visited country in sub-Saharan Africa after S. Africa (invest, 2019). In 2020 Serengeti national park won the Africa's Leading National Park award for 2019 by the World Travel Awards. Tourism in Tanzania is a major foreign exchange earner also it is an important source of employment and income for the government and the people involved in the sector directly and indirectly. In 2019, Tanzania received 1,527,230 million tourists and generated more than US$ 2.6 billion, which comprised of more than 25% of the total exports earnings. The sector also supports nearly 1.6 million direct and indirect jobs. (Tourism, 2019)

In Tanzania Covid started around 2020 March, after a month 14 regions in Tanzania had infected people including the most visited tourist areas like Dar es salaam, Zanzibar and Arusha. Due to that there were temporally suspension international flights for a period of three months. In June 2020 when the situation got better, the Government opened the borders and the international flights resumed, In August 2020 the World Tourism and Travel Council declared Tanzania as the World's safest travel Destination. But still there was a problem, there are still very few foreign tourists arriving and this is because lots of nations are still in lockdown also flights are limited and very expensive so the inflow of tourists is still low and this has affected many employments, businesses and the flow of foreign Currency in Tanzania. This paper will study those potential economic effects which have been an outcome of the pandemic in Tanzania's Tourism.

1.2 Research Questions

The research questions are

- How has Covid19 impacted the number of tourists arrivals in Tanzania?
- To what extent has the government revenue from the tourism sector has been affected by Covid19?
- How has the outbreak of Covid-19 have affected the tourism employment structure?

1.3 Research Objectives

1.3.1 Main Objective

The main objective is to assess the economic effects of Corona Virus in the Tourism sector in Tanzania.

1.3.2 Specific Objectives

- To analyze how Covid19 has impacted the number of tourists arrivals in Tanzania.

Data to be used number of tourists (as independent variable) VS GDP (as dependent variable),
model: Linear regression or Polynomial regression

- To examine to what extent has the government revenue from the tourism sector has been affected by Covid19

Data: Number of tourists vs Government revenue data,
Model: Correlation method between two variables

- To determine how the outbreak of Covid-19 have affected the tourism employment structure

This will be determined by using descriptive statistics

1.4 Problem Statement

Since the outbreak of the Corona Virus in March 2020 in Tanzania, it is believed that the tourism and hospitality industry of Tanzania has been affected. This is due to the closure of many businesses, temporally travel restrictions, cancellation of flights as a state of health emergency regulation. In Tanzania from April 2020 till June 2020 the Tanzania Civil Aviation Authority announced a suspension of all international passenger flights with an exemption of cargo flights and temporally closure of all tourism activities due to COVID-19 pandemic. This means in a period of 2 months there have not been any movement of Tourists in Tanzania. Even though the boarders were opened later, but still other countries have been in a lockdown and the economy being affected leading to less movements. Due to that there is a high chance that number of employees in this industry, revenues collected from this sector

and foreign tourists will be affected either positively or negatively by the end of 2020. This study endeavors to assess the economic implications of the corona virus outbreak on the Tanzania tourism industry. Targeting the tour operators, tour guides, service providers, and tourists targeted micro-businesses. Also other tourism stakeholders and other governmental tourism sectors (Tanzania National Parks TANAPA, Tanzania Tourist Board TTB).

1.5 Hypothesis

Hypothesis is a tentative statement about the relationship between two or more variables.
The following hypothesis is going to be tested.

- H1= Number of Tourist arrivals have been affected by the pandemic outbreak

Ho=number of tourists' arrivals have not been affected by the pandemic outbreak

- H1=Government revenues from tourism have been affected by Covid-19 outbreak

Ho= Government revenues from tourism have not been affected by Covid-19 outbreak

- H1= The employment structure in the tourism sector is affected by the global pandemic (Covid-19) outbreak

Ho= The employment structure in the tourism sector has not been affected by the global pandemic (Covid-19) outbreak

2. Literature Review

Tanzania is endowed with rich and diverse natural resources (particularly wildlife, forests, mountains and the rift valley) that form the main foundation of the tourism industry of the country (Wamboye, 2017) Nearly a third of the land area of Tanzania is protected by the government and is reserved for the activities of a national park, conservation area or game reserve.

(Invest, 2019) Acknowledged that about 38% of the land area in Tanzania is reserved for conservation. Tanzania has 16 national parks, 28 game reserves, 44 controlled zones, 2 aquatic parks, several forest reserves, and one conservation area, housing world-renowned habitats, animals, and special habitats. The tourism industry is one of Tanzania's fastest expanding markets, leading both in terms of GDP contribution and in terms of Tanzania's highest foreign exchange earners, exceeding even gold exports.

2.1 Empirical Trends Of Tourist Inflows, Earnings, Employment And Gdp Before Covid 19

2.1.1 Tourist Inflows Trend In Tanzania Before Covid 19

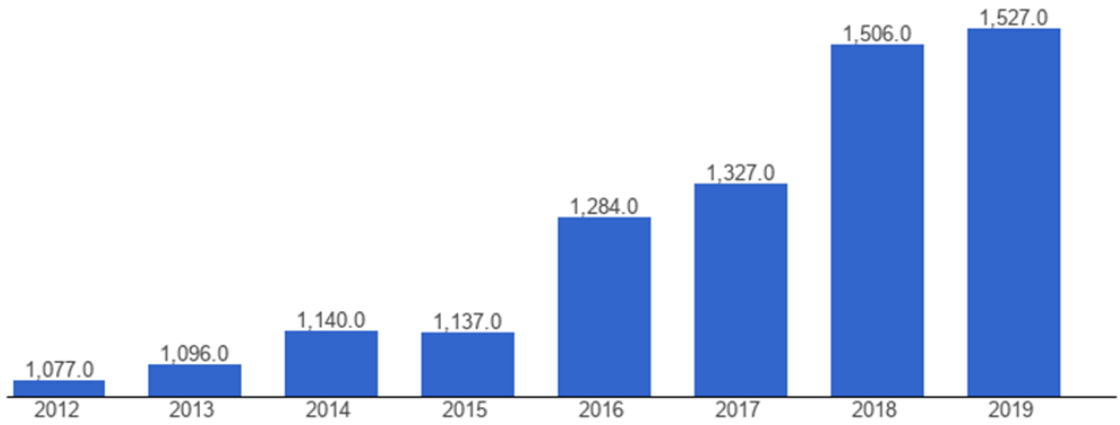
In 2019, international visitor arrivals totaled 1,510,151, with receipts of USD 2,604.46 million, up 0.29 percent and 8% respectively from 2018. Despite a minor increase in international visitor numbers, revenues improved more as the average duration of stay and overall average expenditure both increased. (Tourism, 2019). The figure below shows the number of tourists' arrivals from 2012-2019

Figure 1: Number of tourists inflow 2005-2019

Year	Number of Visitor Arrivals
2005	612,754
2006	644,124
2007	719,031
2008	770,376
2009	714,367
2010	782,699
2011	867,994
2012	1,077,058
2013	1,095,884
2014	1,140,156
2015	1,137,182
2016	1,284,279
2017	1,327,143
2018	1,505,702
2019	1,527,230

Source : (Tourism, 2019)

Figure 2: Tanzania tourist arrivals 2012-2019

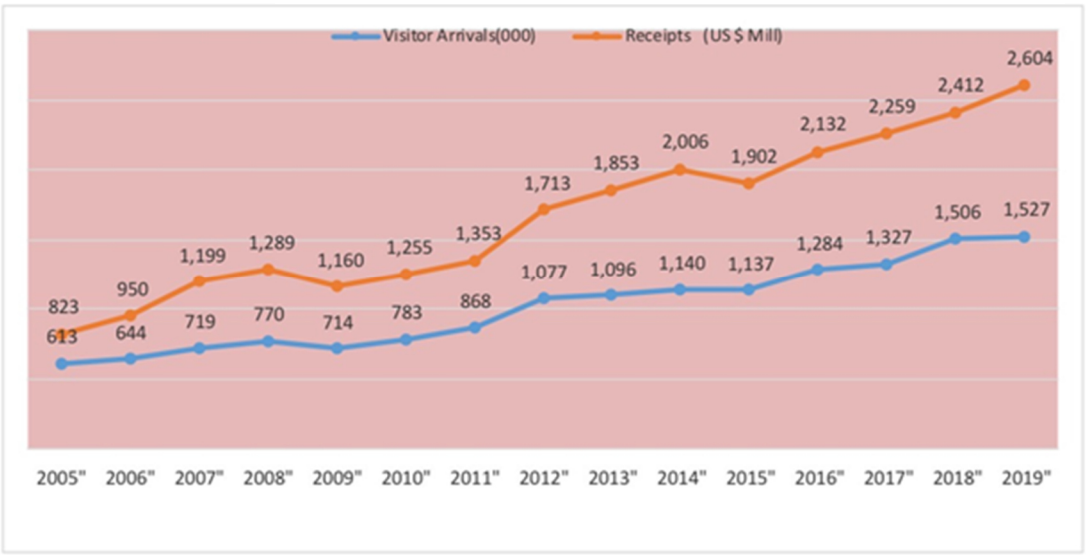


Source : (invest, 2019)

2.1.2 Tanzania Government Revenues From Tourism Before Covid 19

In 2019, receipts reached USD 2,604.46 million, an improvement of 0.29 percent for visitors and 8 percent for overall revenue relative to 2018, which was 1,505,702 tourists with revenues of USD 2,412.30 million. Earnings rose further due to the growth in total length of stay and total average spending, despite a small decline in the number of foreign tourist arrivals. (bulletin), 2019)). International tourist arrivals from Africa maintained their domination by registering 47.6% of the overall arrivals until December 2019, followed by Europe with 33.7% and America with 9%. South Asia and the Middle East were the lowest, with 2.6% and 1.8%, respectively.

Figure 3 : Visitors arrivals and receipts 2005-2019



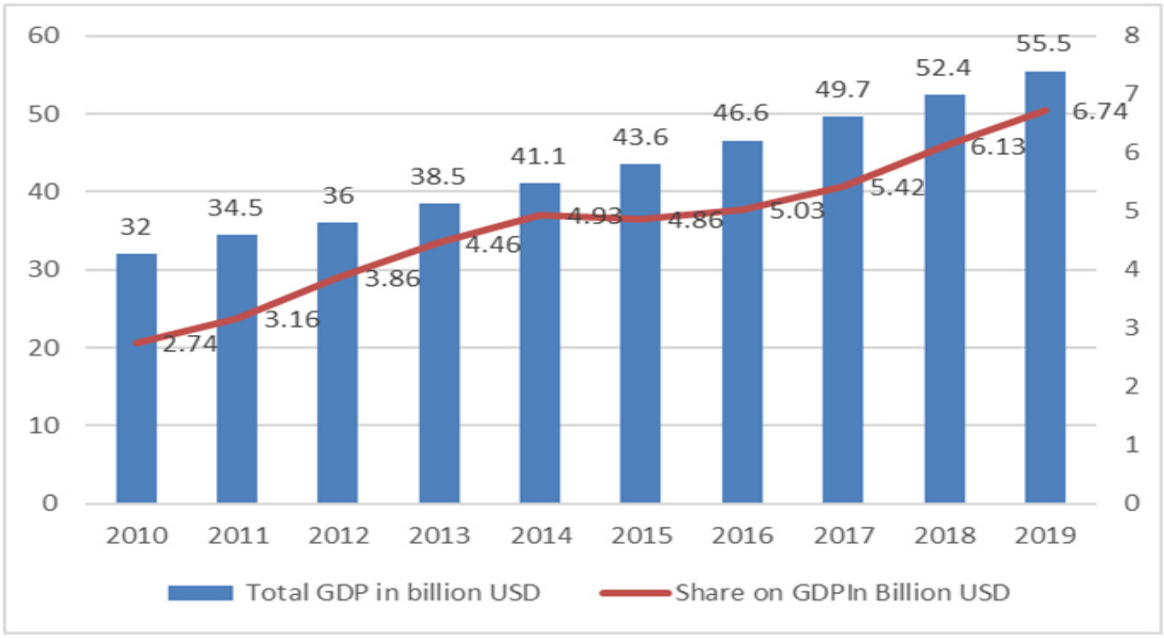
2.1.3 Trend Of Tourism Contributions To The Gdp

Tanzania's tourism industry has consistently contributed significantly to the country's real GDP and employment). In terms of GDP contribution, tourism ranks second only to manufacturing. (invest, 2019). It contributed about USD55.5 billion onto the total GDP by the end of the year 2019. As per trend, the contribution seems to be increasing by almost 57.66% for the past 10 years whereas in 2010 it was USD 32 billion.

Table 1 : Tourism Contribution To The Gdp Vs The Annual Gdp

	Total GDP in billion USD	Share on GDPIn Billion USD
2010	32	2.74
2011	34.5	3.16
2012	36	3.86
2013	38.5	4.46
2014	41.1	4.93
2015	43.6	4.86
2016	46.6	5.03
2017	49.7	5.42
2018	52.4	6.13
2019	55.5	6.74

Figure 4: Total share of tourism on GDP vs total GDP share



Source; (invest, 2019)

2.1.4 Trend Of The Tourism Contributions On Employment

According to World Travel and Tourism Council (WTTC), over the past five years, one in every four new jobs were created by the tourism sector, making Travel & Tourism the best partner for governments to generate employment. Beyond the direct impact, tourism reaches into many other sectors, such as construction, manufacturing and IT services, having a multiplier effect along the value chain. It is estimated that every job in the core tourism sector creates about 1.5 additional or indirect jobs in the tourism-related economy.

Tourism has been a great reviving policy in countries for years in recession. A good example is is Spain, by the year 2015 the country's top export sector created 120,000 new jobs, providing direct or indirect employment to a total of 2.3 million people. Although the economic crisis led to a fall in total employment in the European Union (EU), this was not the case for the services sector, including the core tourism industries such as accommodation, which has had an average annual growth rate of 0.9 % since 2008. ((UNWTO), 2017)

Tourism has been creating jobs for millions at a time when there is a failure to provide hope for a better future to people of all regions as one of the biggest global challenges. The sector's wide reach also stimulates entrepreneurship and growth of micro, small and medium-sized enterprises (MSMEs). MSMEs are defined as a collection of micro, small and medium-sized enterprises. In tourism MSME's include arts and crafts designers, small food and beverages sellers, travel agents and accommodation.

With technology and innovation propelling the so-called 'collaborative economy', there are also many new employment opportunities in tourism that, if well regulated to safeguard quality, a level playing field and the rights of consumers and employees, can make a large contribution to job creation.

Yet, tourism's role in employment generation and entrepreneurship is often underestimated and undervalued in policy formulation and implementation. In 2019 tourism contributed about 330 million jobs in the world which is almost like 1 out of 10 jobs globally.

In Tanzania, tourism has played a great role in the employment it being public jobs or private jobs. It has been mentioned by (Anon., 2017) that tourism directly and indirectly contributes a lot to jobs in Tanzania which includes jobs in hotels, travel companies, airlines and other transport providers for travelers. It also encompasses the practices specifically funded by visitors in the restaurant and recreational sectors. In 2016, Travel & Tourism in Tanzania directly generated 470,500 jobs (3.9% of total employment), which increased by 5.2% in 2017 to 495,000, which was 4.0% of total employment.

In 2019, as announced by Tanzania Invest, the tourism sector in Tanzania generated 12% of the total employment of the country (over 1 million jobs) and directly employed 467,000 Tanzanians (4.15 percent of total Per annum). (invest, 2019) Contribution of travel and tourism to employment of United Republic of Tanzania increased from 553 thousand persons in 2000 to 1,544.9 thousand persons in 2019 growing at an average annual rate of 6.09%.

Table 2: Employment trends contributed by tourism 2010-2019

DATE	VALUE(in thousands)	CHANGE, %
2019	1,544.9	4.15 %
2018	1,483.4	5.50 %
2017	1,406.1	7.82 %
2016	1,304.1	6.15 %
2015	1,228.6	3.60 %
2014	1,185.9	3.12 %
2013	1,150.0	11.76 %
2012	1,029.1	7.11 %
2011	960.7	12.18 %
2010	856.5	-5.91 %

2.2 Pandemics Of Different Errors

The **2003 SARS** outbreak was characterized by the WHO as an epidemic, with most cases occurring in China and Hong Kong, as well as case clusters in Taiwan and Canada. A previously unrecognized coronavirus triggered a respiratory infection outbreak in China's Guangdong Province in 2002. Although subsequent evidence indicates that the reservoir host is the fruit bat, the virus evidently crossed species from civet cats to humans, ((al., 2009)). As an infected doctor from Guangdong, who stayed for a day at Hotel Metropole in Hong Kong, was the source of infection for many hotel guests, the disease became evident to the international population, who then transmitted the virus to several other countries upon their return home. By May 2002, more than 8,000 SARS infections had been reported by the World Health organization (WHO, 2002). By July 2002, 29 countries and territories across five continents had reported outbreaks and attributed 774 deaths to SARS (WHO, 2002). Aircraft transmission of SARS occurred at concentrations from 0 percent to 18.3 percent and occurred as far as seven rows from the source passenger (al., 2003). The capacity for rapid foreign dispersion of a pathogen that is transmitted from person to person (Breugelmans et al., 2004) was seen in one unique SARS event. On March 30th, 2003, a businessman flew from Hong Kong to Frankfurt, Germany. During the five-day span, he flew on seven flights across Europe, including stops in Barcelona, London, Munich, and Hong Kong. He was hospitalized for suspicious SARS in Hong Kong on April 8 and eventually confirmed on April 10 (Breugelmans et al., 2004). The Centre for Disease Control (CDC) has released advisories to discourage travel to SARS-affected countries in response to the SARS epidemic, thereby adversely impacting tourism.

Most countries in Asia implemented stringent quarantine policies and restricted travel to restrict cross-border spread and inter-country spread. The CDC briefly prevented international adoption from China due to concerns regarding the spread of.SARS and related travel advisories, contributing to a major decrease in international tourist arrivals in 2003; the World Tourism Organization (WTO) reported that arrivals to some affected countries in Asia fell to less than 50 percent of their usual levels (WHO, 2004). SARS was blamed for a total traffic volume decline of 9 percent for Asia in 2003, but the country recovered quickly, and had a significant economic impact (WHO, 2004). SARS has been researched from the perspective of tourism. (Siu and Wong 2004) stated that Hong Kong's overall economic impact was not as extreme as anticipated, but that transport, tourism and retail were greatly impacted by the short-term downturn in the number of visitors, relative to the previous year, by 10.4 percent. In China alone, SARS had a combined projected global economic cost of US$100 billion and US$48 billion (McKercher & Chon, 2004) (Siu and Wong 2004).

Swine flu was described as a pandemic in 2009, but it was a comparatively mild occurrence. The 2009 swine flu pandemic was an influenza pandemic that lasted from January 2009 to August 2010 for nearly 19 months and was the second of two pandemics involving the H1N1 influenza virus (the first being the Spanish flu pandemic

from 1918 to 1920). The virus appears to be a new strain of H1N1 first identified in April 2009, arising from a previous triple assortment of duck, swine, and human influenza viruses that were further mixed with the Eurasian pig flu virus (Khiabanian H, Rabadan R, 2009), leading to the name swine flu. (Khiabanian H, Rabadan R, 2009) Several reports have calculated that 700 million to 1.4 billion individuals or 11 to 21 percent of the global population of 6.8 billion at the time may be the real number of cases including asymptomatic and mild cases (R,2011) More than 500 million people are believed to have been afflicted with the Spanish flu pandemic at a lower value of 700 million (Kelly, H., Peck, H. A., Laurie, K. L., Wu, P., Nishiura, H., & Cowling, B. J., 2011). However, by the time, the Spanish flu affected a significantly larger percentage of the world's population, with the Spanish flu infecting an estimated 500 million individuals, which at the time of the pandemic was approximately equal to a third of the world's population ((Hannah, 2020)" The number of laboratory-confirmed deaths registered to the World Health Organization (WHO) is 18,449['Pandemic (H1N1) 2009, although the 2009 H1N1 flu pandemic is estimated to have caused approximately 284,000 (range from 150,000 to 575,000) deaths.['Influenza Factsheet'] A follow-up study performed in September 2010 showed that there was no grey flu risk of severe illness arising from the 2009 H1N1 flu9 [(Thorne PS , 2007)]. For example, the WHO estimates that 250,000 to 500,000 people die annually from seasonal flu (GC, 2006)). Unlike most influenza strains, the H1N1/09 pandemic virus does not infect adults older than 60 years disproportionately; this was an unusual and characteristic feature of the H1N1 pandemic. Even in previously stable people, a small percentage develop pneumonia or acute respiratory disease (ARDS). This presents itself as greater difficulty in breathing and usually occurs three to six days after the initial onset of symptoms of flu.[(Kayali, 2009)] Direct viral pneumonia or indirect bacterial pneumonia may be the pneumonia caused by flu. A November 2009 New England Journal of Medicine report suggested that all antivirals and antibiotics be received by flu patients whose chest X-ray suggests pneumonia. In fact, it is a warning sign if a child seems to be getting healthier and then relapses with high fever, since this relapse may be bacterial pneumonia [(Wu & et al, 2017; Pongsiri & et al, 2009)].

However, the 2009 pandemic of swine flu resulted in nearly 284,000 deaths worldwide (Russy and Smith , 2013) analyzed the influence of the pandemic on tourism in Mexico, suggesting that losing nearly a million foreign tourists over a five-month span resulted in losses of roughly US$ 2.8 billion, with the slowest return on European markets. "In the near future, the current pandemic has not eliminated the threat of a more virulent avian flu pandemic, the importance of pandemic planning is clear," Keogh-Brown et al. observed.

lethal MERS the Middle East respiratory syndrome coronavirus (MERS-CoV) is a virus spread from infected animals to humans. The origins of the virus are not well known, but it is thought to have originated in bats and then transferred to camels at some point in the far past, caused by a coronavirus (MERS-CoV) according to the study of different virus genomes. In many countries in the Middle East, Africa and South Asia, MERS-CoV has been found in dromedaries. Since 2012, a total of 27 countries have reported cases, resulting in 858 known fatalities due to infection and associated complications identified in 2012 in Egypt (Berry et al, 2015). Due to the vast number of people participating in the annual hajj pilgrimage to Saudi Arabia, MERS has gained considerable coverage in the literature on travel medicine (Al-Tawfiqef et al, 2014). The research conducted on S. Korea by (Joo, 2019) estimated that the epidemic was associated with a decrease in tourism loss of 2.1 million non-citizen visitors, equivalent to US$ 2.6 billion.

Ebola, Unlike HIV, it is an RNA filo virus that has wiped out many species of nonhuman primates over the past 20 years (Bermejo et al., 2006). The virus tended to be confined to central and western African and Southeast Asian rainforests (Monath, 1999); (Peterson et al, 2004). Almost all cases of Ebola in humans can be traced back to the handling or ingestion of carcasses of infected animals, particularly apes (Leroy et al. 2004); (Pourrut et al. , 2005). While not definitively confirmed at this point, the natural reservoir host for Ebola (subtype Zaire) and probably other subtypes are presumed to be multiple fruit bat species (Biek et al. 2006) (Leroy et al. ,2004). In the Democratic Republic of Congo (DRC) and Sudan, the first outbreak occurred in 1976, with additional outbreaks in West Africa in 2014-16 and the DRC in 2018-19. In Guinea, Liberia, Nigeria and Sierra Leone, an epidemic of Ebola virus fever has formed in West Africa, which started at the beginning of February 2014. This was the area's first such epidemic. The first cases from the forested area of southeastern Guinea have been identified. As of 7 April 2014, 151 scientifically compatible cases of Ebola have been identified by the Ministry of Health in Guinea, 54 of which have been laboratory confirmed. Ninety-five of these patients died, and in the months to come, the death toll is predicted to go even higher. Liberia confirmed 21 cases, including 10 deaths, that were scientifically consistent with Ebola. In Mali, as of 7 April 2014, the Ministry of Health confirmed six alleged cases, two of which tested negative for infection with the Ebola virus. Samples from the four remaining suspicious cases have been submitted for examination to the CDC and the Pasteur Institute in Dakar. According to the UN and WHO, in Guéckédou, a forested region of Guinea near the border with Liberia and Sierra Leone, the first recorded case of the Ebola epidemic that crippled western Africa dates back to December 2013, and travelers took it across the border. 759 people were infected by the end of June 2014 and 467 people died from the epidemic, making this the deadliest outbreak of Ebola ever. As of 5 July 2015, there were 27,609 cases and 11,261 deaths recorded worldwide, the vast majority of them in the same three countries; 2499 deaths in Guinea, 3940 deaths in Sierra Leone and

4807 deaths in Liberia.

The risk of infection was considered very low for tourists, travelers or residents of infected areas provided any specific precautions were taken, such as preventing contact with symptomatic patients and/or their body fluids or with the corpses and/or body fluids of deceased patients.

Travelers, such as South Africa and Kenya, are putting trips on hold to countries untouched by Ebola. The consequences of Ebola issues were felt by Africa's tourism industry, the virus created so much panic among people that it is almost difficult to convince them with rationality that the virus did not impact the whole continent of Africa. Yet, in the minds of many travelers, all of Africa is a single country. Fear of the virus is rattling the continent's potential visitors and underlining the dangers involved with flying to Africa. According to a World Bank Group report on the economic effects of Ebola in Africa, the Ebola virus has devastated the economies of Guinea, Liberia and Sierra Leone, even though transmission speeds in the three countries show clear signs of slowing. The Bank Group reports that in 2015, as a result of the outbreak, these three countries lost at least US$1.6 billion in ignored economic growth.

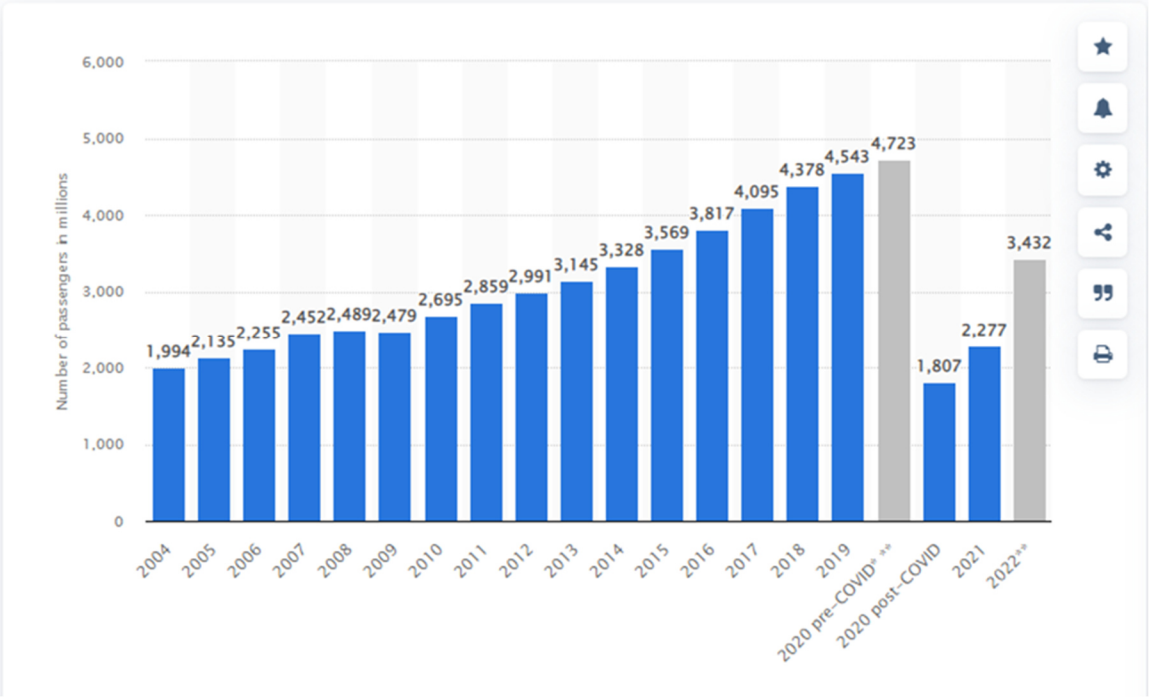
The **Spanish Flu** is not only because of the related virulence, it is an important analog for COVID-19, but also because all of the NPIs (Non-pharmaceutical interventions) that were then implemented are used to reduce COVID-19 (e.g. quarantine, travel restrictions) (Ferguson et al, 2006). Evidence shows that the introduction of such initiatives decreased death rates by nearly 50 percent in the case of the 1918-19 pandemic (Hatchett et al., 2007) and, if NPI strategies were continued, mortality was substantially reduced (Markel et al, 2007). As (Hatchett et al., 2007) noted, however, treatments were scarcely sustained for more than six weeks, with the virus beginning to spread until controls were eased, contributing to widespread questioning as to the efficacy of the NPIs.

Corona Virus Disease is a novel coronavirus-associated pneumonia, called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The World Health Organization (WHO) proclaimed the epidemic a Public Health Emergency of International Significance on 30 January 2020 (PHEIC). WHO called the disease caused by the novel coronavirus as Coronavirus Disease 2019 on February 12th 2020 (COVID-19) The World Health Organization (WHO) announced a novel coronavirus (COVID-19) epidemic on March 11, 2020. By then, the virus had already been transported to all continents by global air travel and was developed in 146 countries by mid-March. The number of confirmed infections worldwide has steadily doubled, related to a number of super-spreading incidents, such as the Ischgl ski resort in Austria (Anderson et al, 2020). From here, the incidence of infection increased by population spread and confirmed cases reached close to 2 million by 15 April (with more than 12,500 deaths) in more than 200 countries (ECDC 2020).

COVID-19's rapid emergence, scientific awareness, and NPI responses unfolded over the course of eight weeks, and tourism organizations struggled to grasp the magnitude of the situation: Estimates of COVID-19 impacts on the sector by the United Nations World Tourism Organization demonstrate the uncertainty and complexities of the pandemic and policy responses (UNWTO) Between early and late March, these were substantially revised. According to a UNWTO press release dated March 6, 2020 (2020a), the pandemic will result in a 1-3 percent drop in international tourist arrivals (compared to 2019), rather than the expected 3-4 percent increase. On March 26, three weeks later, a press release revised this estimate to a 20-30 percent drop in foreign arrivals (UNWTO 2020b). These significant changes reflect the complexity of forecasting at this time, so all predictions of future tourism effects must be viewed with great caution and are only predictive at this time.

Global tourism has slowed dramatically as a result of travel restrictions and lockdowns, with the number of global flights falling by more than half (Figure 7):as case numbers rose, travel bans grounded a growing number of carriers. Passenger numbers are likely to have declined even more steeply, as many airlines adopted specific seating policies to maintain a distance between customers. For example, Air New Zealand's seating limits, in order to comply with government social distancing criteria, mean that the airline is operating at less than 50% capacity even when "complete" (Air New Zealand, 2020).

Figure 5: Number of scheduled passengers boarded by the global airline industry from 2004 to 2022.



Data sources : Statista 2022

Figure5 depicts the effect of the crisis In 2021, due to the coronavirus pandemic, the estimated number of scheduled passengers boarded by the global airline industry amounted to just over 2.2 billion people. This represents a 50 percent loss in global air passenger traffic compared to 2019.

As the number of cases of COVID-19 exploded and expanded worldwide. Figure 8 indicates countries with border barriers closed to the travel of non-citizens and non-residents as of 31 March 2020 and partial border closures, including restrictions on arrivals from some other countries or where not all border forms are closed (air, land, sea). It can be calculated that over 90 percent of the world population is in countries with some form of foreign travel restrictions using country population statistics, and many of these countries still have some degree of restrictions upon the movements going on internally, including limited air travel and stay at home orders. This extraordinary reaction closed borders to all foreign citizens in a wide variety of developed nations, and nearly all other countries have imposed at least such visa controls, including selective country travel bans, arrival quarantines and/or standards for health certificates.

criteria and methods used. The methodology will also outline how the analysis will be carried out and show the relevance and limitation of the data collected and methods used.

Figure 6 :Pandemics in recent history

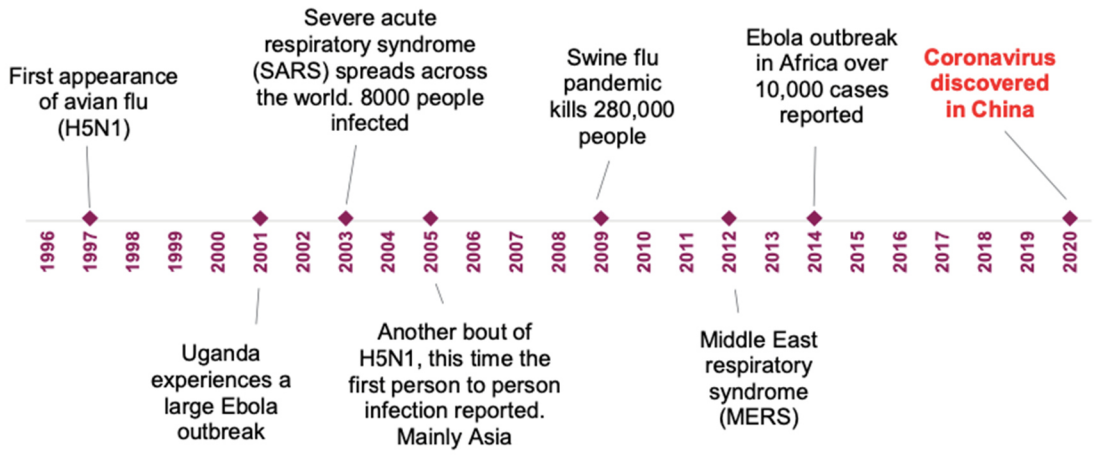
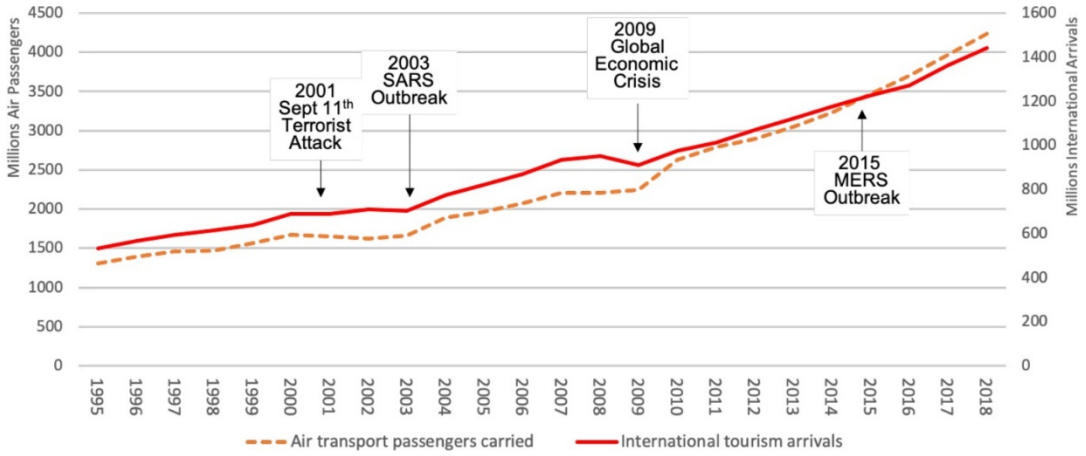


Figure 6 above shows the great pandemics that attacked the world from the 1970's to 2020. As many literatures expressed we can see that most pandemics are originated from animals then transmitted to human beings.

Pandemics have been occurring mostly within these two centuries 20th and 21st, most pandemics get spread widely to the world and most of the sectors affected are the travel and tourism sector as presented above in the literatures. In the Figure below we will see how the travel and tourism sector have been affected by the pandemics for the past years

Figure 7:impacts of major crisis events on global tourism



Data Source: World Bank 2020a ,2020b

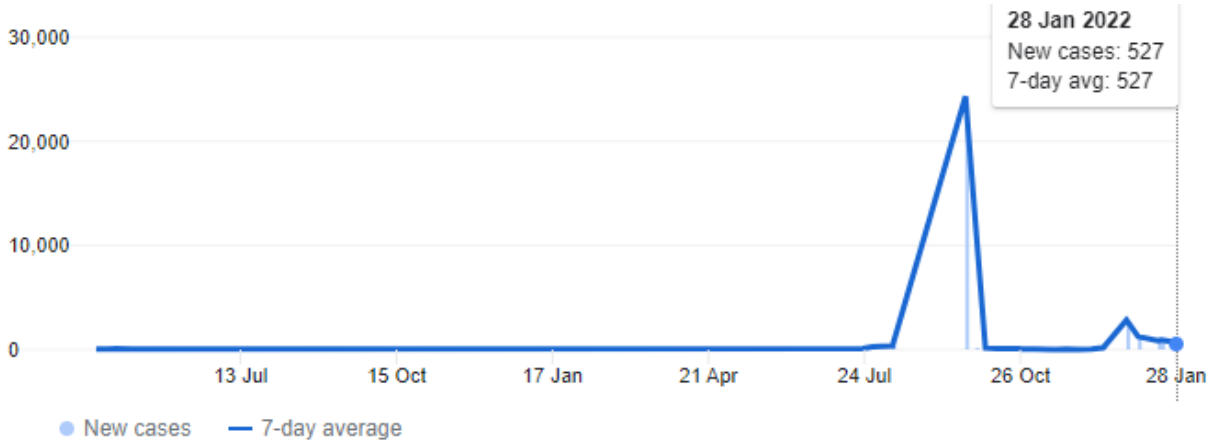
2.3 Tanzania Economic Performance and Prospects Before Covid 19

According to the National Bureau of Statistics ("NBS") the rebase of the GDP statistics was done through changing the base year from 2007 to 2015. Hence resulting to the changes on the GDP size, the annual GDP growth levels, growth by sector and the contributions from various sectors to the GDP as well as other different indicators of GDP. Over the past 10 years, Tanzania has been one amongst the fastest growing economies in the world. The Minister of Finance and Planning stated In his budget speech in June 2019, that Tanzania had a very strong macroeconomic outlook with a growth in the GDP to about 7.0% and a low stable and single-digit inflation. According to a Government of Tanzania study on the impacts of COVID-19 on the tourism sector, without the pandemic, the 2020 season would have attracted approximately 1.9 million tourists and generated US$2.9 billion of forex. Without the pandemic, it was expected that the government would have collected revenue of TZS 2.7 trillion (US$1.16 billion), and the sector would have provided direct employment to 622,000 people.

2.4 Covid19 In Tanzania

The government of Tanzania announced the first case of coronavirus on 16 March 2020, which was an imported case in Arusha, the center of the northern tourism circuit of the world. Up to 8 May 2020 (Minister of Health) confirmed that there were 509 recorded cases and 21 deaths, while 14 regions in Tanzania had infected people. The virus spread so quickly over a month. This includes tourist places such as Dar es alaam, Zanzibar and Arusha, which are the most visited. As of early April, the announcement from the Tanzanian Embassy in the United States reported that there are no more international commercial flight options in Tanzania. Both international scheduled and chartered passenger plane to Tanzania is suspended by the government of Tanzania. All passengers, whether visitors or returning nationals, arriving from the most affected COVID-19 nations, are subject to compulsory isolation for a maximum of 14 days at their own expense at approved government-identified facilities. The number of confirmed cases up to28 Jan 2022 is seen in Figure 9 below.

Figure 8: COVID19 cases in Tanzania



Source: worldmeters.info

The Minister of Natural Resources and Tourism, speaking before members of parliament, told Parliament that the number of people who will lose work constitutes 76 percent of the overall direct employment in the sub-sector because of the spread of the Corona Virus pandemic. And, relative to previous years, the overall GDP is expected to decrease by 75 percent. Tanzania is feeling the influence of several big natural tourist attractions. Economic growth is also expected to decline to 2.5 percent in 2020 by the World Bank's 14th Tanzania Economic Update (TEU), from 6.9 percent growth recorded in 2019.

In Tanzania, tourism operators are expecting sales declines of 80% or more in 2020. And nationally, 500,000 Tanzanians may be pushed below the poverty line by the crisis, with those working in the informal sector expected to be most affected. Tanzania has several companies accredited and engaged in what is considered 'responsible tourism' at places such as the Ngorongoro Crater, the Serengeti and Selous National Parks, Mount Kilimanjaro and Zanzibar. This form of tourism benefits local populations surrounding tourist destinations and tends to reduce adverse environmental impacts." However, without travel, there is no responsible tourism," said Julius Lesanoi, auditor of international qualification programs such as Travelife, Flocert and Responsible Tourism Tanzania(RTTZ).

3 Research Methodology

3.1 Study Area

It is defined as the Description and justification of the geographical area or the location(s) where the proposed research will be carried out. This research will be based in Tanzania whereas primary Data will be collected will be collected from some individuals in related sectors through online surveys and interviews (this is due to the situation of the pandemics it's a challenge to reach individuals physically) .

3.2 Research Approach and Design

Research approach is the mental and philosophical dispositions a particular study may have, consciously or unconsciously, on the nature of knowledge, how it is acquired and the nature of human beings, as respondents in any social reality which can only be qualitative or quantitative (Omari, 2011). He argued that a qualitative method of data collection is more subjective in understanding matters while quantitative approach is objective. Additionally, the authors emphasize that a quantitative approach is mostly used to gather data in a large sample while qualitative can be used in a small sample whereby an in- depth of study can be obtained through interview, observation, focus group and other instruments. This study will use both quantitative and qualitative research approach (Mixed method approach) to generate data on economic impacts of COVID19 on the tourism in Tanzania. According to (Creswell, 2009) mixed method (which combines qualitative and quantitative approaches) is useful when either the qualitative or quantitative approach by itself is inadequate to best understand the research problem or the strengths or constraints of both providing best understanding.

3.3 Population and Sampling Procedure

This section focuses on the methods used to select the samples used in the study. In this study, researchers mainly use judgmental sampling to obtain information (whereas it is a non-probability sampling technique in which the sample members are chosen only on the basis of the researcher's knowledge and judgment). These respondents are selected target populations. Researcher believes that they will provide researchers with useful and confidential information and provide researchers with Specific and required data.

The population for this study consists of organizations that have direct link with the tourism industry in Tanzania and their stakeholders. The inclusion of participants in the study focused on the researcher's conception of their ability to provide necessary and quality information. The tourism industry in Tanzania involves wildlife national parks, Game Reserves, mountain climbing, Museums and Historical sites, Marine

Parks and Beaches. However due to time constraints and restrictions the researcher will concentrate on the following populations to collect data (The Tanzania Tourist board, Tanzania National Parks, hotel owners, tour operators and Tour guides, craftsmen, arts and crafts sellers) making a total of 200
respondents divided as follows;

Tanzania Tourist Board (TTB)
The researcher spoke to the Managing Director of the Tourist Board and other board members whereas some secondary data and information were provided also the reference letters to TANAPA,NCAA and TAWA.

Tanzania National Parks (TANAPA)
The researcher got a chance of speaking to the Business Development Manager, assistance business development manager and the IT department where as some secondary data about the Visitors and revenue statistics on the national Parks from March 2020 to August 2020 (during the peak season of COVID 19 in Tanzania) was provided.
CHAWASATA (Tanzania Artists association of arts and Sculptures, Mwenge Dares salaam)
here interviews were done to some Craftsmen in Mwenge area Dares salaam whereas only 19 people responded 15 (Written interviews) and 15 (oral interviews)

Other stakeholders
These include hotel owners, tour operators, Tour drivers, business owners and Tour guide.
An online survey was sent to to them and a total of 120, 97 people responded whereas 3 people didn't complete all questions hence only 117completed the survey. In180 respondents, 20 tour guides,20 were hotel managers,20 were tour drivers, 20 were tour company owners 20 were arts & crafts sellers and the rest 20 were other tourism stake holders. The main aim was to observe how they have been affected by COVID19.

Table 3 :Population Sampling

No.	Institution	Category of population	Sample Size
1	TTB	Managing director and marketing officer	20
2	TANAPA	Business Development Manager, assistance business development manager and the IT department	20
3	CHAWASATA	The Chairperson, sellers and some artists	20
		Other Stake Holders (Online survey)	
4	Tour guides		20
5	Hotel managers		20
6	Tour companies		20
7	Business owners		20
8	Tour drivers		20
9	Others		20
	TOTAL		180

Source; Research findings

3.4 Data Collection Techniques

This study will employ multi methods of collecting data ie. both primary and secondary data was used to obtain the results upon the research questions.

The primary data this data was collected through a well-designed online survey and interviews. The survey was designed based on selected research questions about the impacts of corona virus disease to different levels of tourism and the research concerns were summarized from the current literature. The primary research questions were focused on the effects which have been a result of the ongoing pandemic COVID19, the survey was conducted through selected business owners, tour companies, tour guides, and different tourism stakeholders.

The secondary data this data was obtained from selected government sectors that are related, online documents, newspapers and all other related articles. For secondary data the researcher aimed at finding out other studies related to the topic area such as journals, books, newspapers and any other document which will allow the researcher to gather relevant data for this study. (Stewart and Kamis) argued that using secondary sources of data has an advantages for example it is less expensive compared to primary sources of data. Additionally, the authors

emphasize that it helps the researcher to make a comparative analysis between the new data and the previous data whereby differences can be examined.

Qualitative data was obtained through online interviews which were conducted through zoom calls while quantitative data was through an online survey which was created in Survey monkey and being spread online to the targeted samples. The Data collected were entered, tabulated and analyzed using SPSS package and Microsoft Excel 2007. The econometrics model, by using Multiple linear regression analysis were used to analyze quantitative data, in order to test statistically significance of variables in cooperating both descriptive and inferential statistics and quantitative and qualitative data were also presented in form of tables, charts and percentages through Microsoft excel and SPSS.

3.5 Model Specification

Below are Simple and multiple regression models specified for determining the impact of COVID 19 on tourism sector in Tanzania. The model is specified to cover the estimates for the period of 2015 – 2020. Also the second model includes other factors affecting tourism apart from Covid19 Using

Tourism Seasonality which was presented monthly to check the impact in tourism brought up by $Y_i^T = \beta_0 + \beta_1 C_T + \varepsilon_i$different seasons monthly.

Above is the first model (Simple Regression) Where

Y_i^T ; are outcome variables of interest that is (employment by the tourism sector, earnings from the tourism sector and share of tourism on GDP growth) for the period T of 2015 – 2020.

Ps; For the first model data was presented yearly

$\beta's$ are the coefficients

C_T is a Covid Variable

ε_i is an error term

With the above model; $C = 0$ if T<2019 and $C = 1$ if T≥2019

Note: 2019 is the year COVID-19 pandemic hit the world

$$Y_i^T = \beta_0 + \beta_1 S_T + \beta_2 C_T + \varepsilon_i$$

The second model (Multiple regression) is

Where as Y= Is an outcome variable if Number of tourists

Ps; Data are disaggregated by months

S_T seasons in tourism

$\beta's$ are the coefficients

C_T is a Covid Variable

ε_i is an error term

3.6 Hypothesis

Hypothesis is a tentative statement about the relationship between two or more variables.

3.6.1 Research Questions

- How has Covid19 impacted the number of tourists arrivals in Tanzania?
- To what extent has the government revenue from the tourism sector has been affected by Covid19?
- How has the outbreak of Covid-19 have affected the tourism employment structure?

The following hypothesis is going to be tested

3.6.2 The Null Hypothesis

COVID 19 has negative effect on (number of incoming tourists, employment by the torusim sector and earnings from the tourism sector)

H0: If $\beta_1 < 0$ Accept the null Hypothesis

H1: If otherwise, reject the null Hypothesis

3.7 Data Analysis

Data analysis refers to the examining what has been collected in survey or experience and making deduction .In this study researcher is going to analyze data using online survey (Survey monkey) and STATA for analysis of simple liner regression models and other econometrics analysis. In this study, descriptive analysis was applied to analyzed some of key variables for the study including the primary data collected from the online survey and other time series variables. Further, Ordinary Least Square was applied for analysis of simple linear regression analysis. Since, key variables included in this study are time series data, therefore several tests and analysis for time series variables was conducted. This include; the Dickey-Fuller Test for Unit root test – the test for stationarity of time series variables. The analytical outputs were presented in tables and figure for easy interpretation and visualization

by the readers

4 Results Presentations And Discussions

4.1 Descriptive Statistics

Table 4 below presents the descriptive statistics for the secondary data gathered on the three key independent variables for this study i.e., Number of incoming tourists (in thousands), Number of employments by tourism sector (in thousands), Earnings from the tourism sector (USD million) and the share of tourism sector on annual GDP growth.

Table 4:Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of Tourists (thousands)	6	1131.165	492.587	249.059	1542.374
Employment (thousands)	6	1350.833	155.406	1137.9	1544.9
Tourism Earnings (millions of USD)	6	2053.918	485.111	1200	2604.46
Share on GDP (percentage)	6	9.533	2.091	5.3	10.7

Source: Secondary Data Analysis

From the analysis above; The Number of Tourists in Tanzania for the period of 2015-2020 shows a mean value of 1131.165 thousand on the total number of incoming tourists in the country per year with a standard deviation of 492.587 thousand. The minimum value of number of tourists during the period of 6 years from 2015-2020 is 249.059 thousand which was recorded in the year 2020 and the maximum value being 1542.374 thousand recorded in the year 2019. On the other hand, Employment from the tourism sector during 2015-2020 had a mean value of 1350.833 thousand with a standard deviation of 155.406 thousand. The minimum value upon the employment from the tourism sector recorded was 1137.9thousands in the year 2020 and the Maximum value being 1544.9 thousand recorded in 2019.

Tourism earnings over the years 2015-2020 recorded a mean of 2053.918 thousand with a standard Deviation of 485.111 thousand. The minimum Value upon the total earnings was $1200 thousand recorded in the year 2020 and the maximum being 2604.46 recorded in 2019. The percent share on the GDP from the tourism sector has a mean of 9.533%, the standard deviation of 2.091% whereas the minimum value is 5.3% in 2020 and the maximum Value of 10.7% recorded in 2018 and 2019

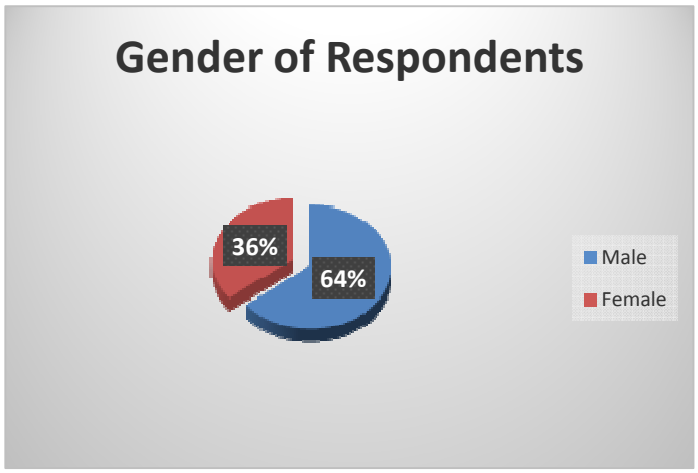
The general implication of the Descriptive analysis is that the minimum values of all variables fall in the year of 2020 where as in this year the effect of the pandemic was highly noticeable.

On the primary data collected, descriptive of the demographic information is presented as shown below;

4.1.1 Gender Of The Respondents

The survey conducted to 200 respondent, 128(64%) were male and 72(36%) were female. Most of people engaged in the tourism sector are male due to the nature of the work and the allocation of tourism activities, which is far from their respective homes. The Tanzanian culture evidenced that it is easier for males to work far from their family than females who are more responsible for taking care of the family. In [54]analysis of East Africa's Cultural dimension Tanzania's ranking showed the score for power distance as 64, uncertainty avoidance as 52, and Masculinity as 41and for Individualism as 27. Therefore, males in Tanzania are shown as being more favored even in employment opportunities than female which might be the same case in tourism industry. However, in some areas and some activities such as recreational areas and crafts activities employs mostly female.

Figure 9 : Gender of Respondents

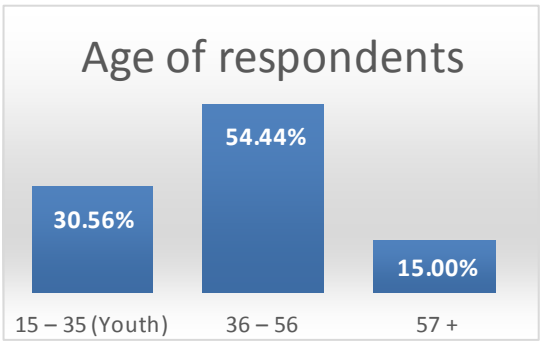


Source: Survey Research, 2021

4.1.2 Age Of The Respondents

Ages of respondents were included purposely to weigh out how the Covid19 have impacted different age groups in different sectors of tourism that they are working for. Therefore, to get realistic opinions and suggestion and drawing sound conclusion, age of the respondents was considered. Findings show that among of the total respondents interviewed, 30.56% were youths with 15 – 35 years of age whereas the 54.44% were adult of 36 – 56 years of age. Few respondents (15%) with more than 57 years of age were also reached.

Figure 10: Age of respondents

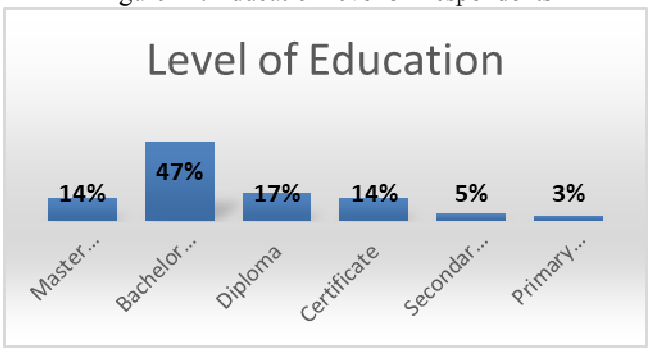


source: Survey Data, 2021

4.1.3 Education Level

Education plays an important role in getting the right people at a right place and right time, it was then, very important to know the respondent's education status. Respondents with varied educational background may provide competencies significant skills for management of tourist activities. Findings show that out of 180 respondents, 14% (28 respondents) have master's degree, 47% (94 respondents) have a bachelor degree as most people working in the tourism sector are bachelor graduates especially the tour operators.17% (34 respondents) have a Diploma, 14% (28 respondents) have certificates and lastly 5% (10respondents) and 3% (6 respondents) have a secondary level education and primary education respectively.

Figure 11: Education level of Respondents

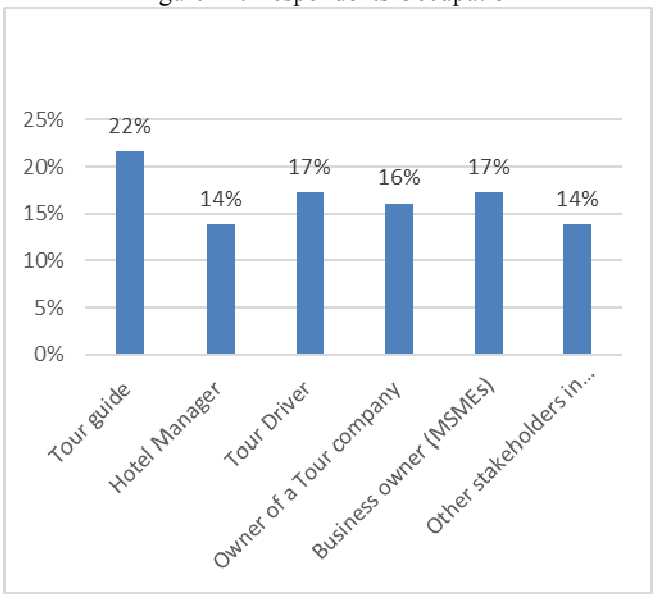


Source: Survey Data, 2021

4.1.4 Respondents' Occupations

The interview was supplied to respondents of different natures from tour operators, tour drivers, tour guides to hotel managers and business owners. This was important because the results collected was able to know how each category in the tourism business was affected. In a total of 200 respondents, 22% (44people) were Tour guides, 14% (28people) were hotel managers,17% (34 people) were tour drivers, 16% (32 people) were owners of tour companies ,17% (34people) were business owners (MSMEs) and the rest 14% (28people) were some other tourism stakeholders such as tourism government regulatory authorities, researchers etc.

Figure 12: Respondents Occupation



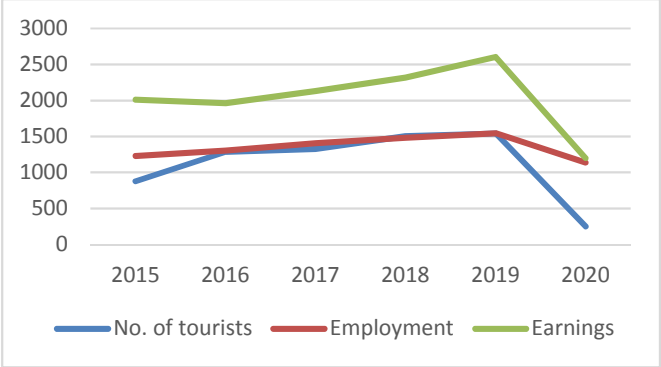
Source; Survey Data ,2021

4.2 Trend Of Tourism Incoming Visitors, Earnings, Employment And Share On Gdp

The trend analysis included data on incoming number of tourists in Tanzania, earnings by the tourism sector, number employment provided by the tourism sector as well as the share of tourism on the annual GDP growth for the period of 2015 – 2020 Aim of trend analysis is to observe the movement/changes of the variables over time with an effect of the pandemic. Tanzania is one amongst the countries whose tourism has been affected speedily. The country went through a very brief period of partial restriction from March to May 2020, this includes temporary border closures and airspace bans with barely any nationwide lockdowns.

The figure below presents the trend of the incoming number of tourists in Tanzania, earnings by the tourism sector, number employment provided by the tourism sector. Findings shows a sharp decline in both variables in 2020 as the effect of the pandemic. The variables have a steady movement from 2016 – 2019 with an approached parallel trend sloping upwards. That predicts, if weren't the pandemic, situation in 2020 could be much better.

Figure 13: Trend of incoming number of tourists, earnings and number employment



Source: Secondary Data Analysis

Announcements and guidance by the government to reopen airspace and restore businesses with strict adherence to WHO and other sector-specific measures from June onwards was not enough to restart and sustain the original growth trend of the responsible tourism sector, since source markets and neighbors extended their border and air space closures, as well as their travel restrictions.

Data show that there has been an increase on the number of tourists arriving in Tanzania for the past 10 years from 782,699 tourists in 2010 per year to 1,527,230 tourists in 2019 with an increase of income from 1,254.50 million US dollars in 2010 to 2,604.46 million US dollars in 2019 but in 2020 due to the outbreak of Covid-19, the receipts have dramatically declined; the number of international tourist arrivals in 2020 declined by 60% to 249,059 from 1,542,374 visitors recorded in the year ending December 2019.

The trends in number of tourist inflows, income, employment and contribution to the GDP are as follows;

4.3 Quarterly And Monthly Trend Of Number Of Tourists Inflow

4.3.1 Quarterly Trend

Table 5:quarterly Trend From 2018-2020

QUARTERS	2015	2016	2017	2018	2019	2020
1st Quarter	265490	281947	320743	364886	351755	42830
2nd Quarter	239221	245405	257110	302052	303794	615
3rd Quarter	367544	373933	456822	456822	468625	15114
4th Quarter	180994	389383	375357	381942	418200	190500

Source; Statistical Data 2020

Data provided by the Tanzania National Parks on a quarterly basis from 2015 indicates a significant increase of incoming tourist in the country until 2019. In 2020 the country experienced a very few numbers of incoming tourists that did not experienced in the previous years under review.

Tourism in Tanzania is divided into 4 Quarters; 1st quarter (January to March),2nd quarter (April-June), 3rd quarter (July- September) and 4th quarter (October – December) .

According to the table a there has been a dramatic decline of tourists arrivals by the year 2020, it marks the lowest number of tourists' arrivals in the First to the third quarter compared to the past 5 years.

On the first quarter of 2020 (there was a total of 42830 tourists who visited) compared to 2019 (1st quarter in which 351755 tourists arrivals were recorded) and 2018 (1st quarter received 364886 tourists).

The worst case was on the **second quarter 2020** (in which only 615 tourists arrived) as compared to 2019 (2nd quarter whereby 45682 tourists visited) and 2018 (2nd quarter in which a total of 468625 tourists arrived) ,

While on the **3rd quarter** the situation was a bit better (15114 tourists) visited compared to the previous quarters but still lower than the arrivals in 2018-2015,

The same applies to the fourth quarter where as the number of tourists was still lower (190500 tourists) than the previous years.

From The observations of the trends there has been a dramatic fall of tourists quarterly inflow for the year 2020 especially on the Second Quarter. It has been observed by the researcher that the fall on the number of tourists visiting Tanzania is a result of the challenges related to the outbreak of COVID-19.

The challenges are explained by both local and external factors observed by the researcher as follows ;

External factors; externally there has been a fall on the number of tourists arrivals in the country due to the World's travel restrictions as a measure taken to control the widespread of the pandemic. Tanzania receives a lot of tourists from Europe and America yearly. According to the 2019th statistical Bulletin report, Visitors from Unites States of America (USA) recorded highest with 19.7%. Statistics reveals that International Visitor Arrivals from USA grew by 6.6% from 94,876 in 2018 up to in 101,556 in 2019. United Kingdom and Italy followed USA with 14.9% and 14.5% respectively. But currently USA and Europe have been reported the most leading nations with a high number of Covid-19 cases ,WHO declared Europe as the new epicenter of the virus. On 26 May, the epicenter was declared by the WHO to have moved to the America, U.S.A became the country with the highest official death toll for COVID-19, with over 20,000 deaths. As of 7 October 2020 the total cases of C0vid-19 cases were 7.5mil. All these inconveniences have contributed lots to the fall of tourists in Tanzania, this is due to the fact that the leading countries for Tourist sources are all highly affected by the suspension of airline industries also called for measures such as lockdowns and social distancing making it impossible for most tourist to travel to Tanzania, even if they were willing to.

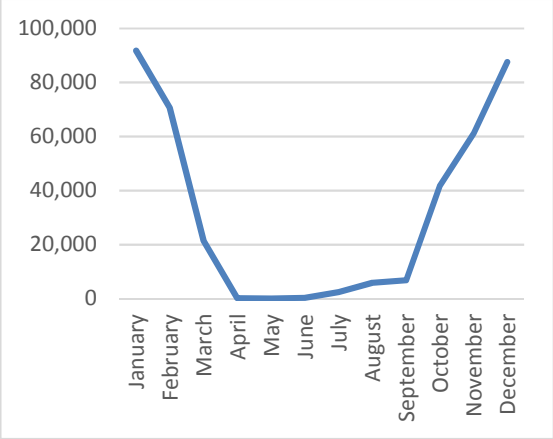
Apart from that **domestically**, the Government suspended all international flights as one amongst the measures taken against Covid-19. The government had to close all international borders and restrict all international flights from operating for almost a month (April 14 to May 18) this resulted to a dramatic fall on number of tourists because none of the tourist were able to fly in .During April to May Tanzania received only 319 tourists even though after a month the restrictions were lifted but the tourism industry still benefited less due to the fact that the rest of the world was still on travel restrictions.

4.3.2 Monthly Trend

Table 6:Monthly Trend from January 2020- December 2020

months	**No. of Tourist Arrivals**
January	91,816
February	70696
March	21415
April	197
May	122
June	296
July	2379
August	5842
September	6757
October	41700
November	61200
December	87600

Figure 14:Monthly trend of tourist arrival from January 2020- December 2020



Source; research Findings

Below are the monthly trends of tourist inflow From January 2020 – September 2020

In January and February the number of tourist visited Tanzania was 91816 and 70696 where as compared to 2019 (120,503 and 122,929), by this time there was no any reported cases in Tanzania but worldwide there were 1848 confirmed cases worldwide and WHO advised people to avoid unnecessary travelling and gatherings and that was because the disease is so contagious so this affected the number of tourists whom arrived by this time compared to previous years.

During March there was a total of 21,415 tourist who visited, its observed that the number of tourist visited this month dropped compared to February. During this time the cases had increased dramatically to 58,495 cases worldwide upto 30th March . Also by this time there were 19 recorded covid-19 cases in Tanzania (Ministry of health Tanzania report) .The situation wasn't getting any better and the light for Tourism kept dimming day by day.

From April – May the situation got worse these two months recorded the least number of tourists arrivals (197 in April and 122 in May) .The number of tourist recorded were before the international flights were suspended in Tanzania (on April 12th) and after the restrictions were lifted (on May 18th). Since the borders were closed during this time there was no any tourism activity going on .This affected mostly the small business owners, according to research findings most Micro entrepreneur (ie Crafts men, art sellers) decided to shut down their businesses during this time.

June-September in these months the situation at least got better on the number of arrivals especially from July onwards. Though still the situation is not back to normal as compared to the previous years like September 2019 whereas there were147,877 tourists as compared to this year September in which only 6893 tourists have arrived (TANAPA tourist arrivals 2020 report).

October –December in the last quarter there was hope in December the number of tourists inflows elevated to 87600 and during this period some of the places in the world had started to open up the borders hence people

were able to travel though all the precautions were still observed.

So generally the researcher proved that the pandemic has led to a major fall on the tourist arrivals for the year 2020. The researcher also believes that the fall in the number of tourists has a direct impact on the employment and government revenues as mentioned below

4.4 Income Trends

As mentioned earlier in previous chapters, Tourism and hospitality industry is one of the major sources of foreign exchange earnings to Tanzania. In the financial year 2019, the total value of foreign exchange earnings generated from tourism amounted to USD 2.557 billion (Bank of Tanzania Quarterly Economic Report 2019). This represented 25.79% of all goods and service exports and 61.4% of service exports. There has been an increase upon the number of tourists arriving in Tanzania for the past 10 years from 782,699 tourists in 2010 per year to 1,527,230 tourists in 2019 with an increase of income from 1,254.50 million US dollars in 2010 to 2,604.46 million US dollars in 2019 but in 2020 due to the outbreak of Covid-19, the receipts have dramatically declined as shown in Figure 24 below

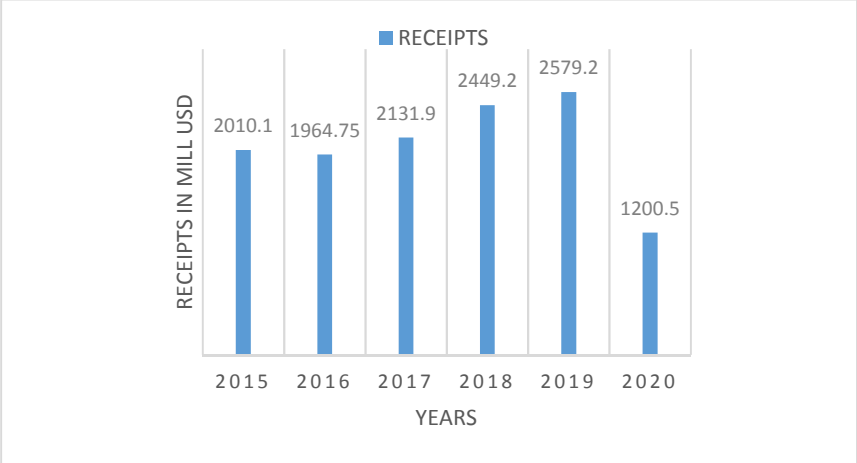


Figure 15: Receipts from tourism 2015-2020

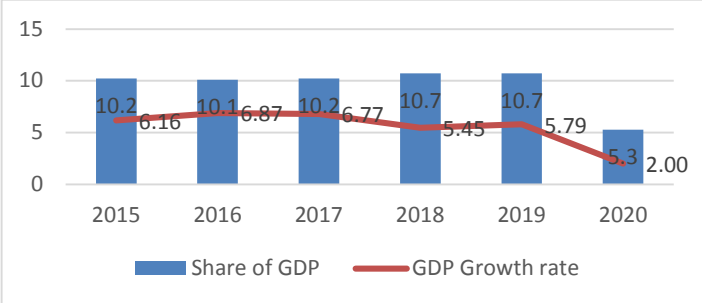
Source; research findings

According to the Bank of Tanzania monthly report (2020), on month-to-month basis, travel receipts declined by 59.2 percent to USD 1,061.6 million by the end of the year 2020 as compared to USD 2604.46 million in 2019. This is might be a reflection of low travel payments associated with containment measures to limit the spread of COVID-19 such as lockdown and suspension of international passenger flights

4.5 Gdp Contributions Trend from The Tourism Sector

Also, travel and tourism Gross Domestic Product (GDP) of Tanzania had sharply reduced from 10.7% in 2019 to 5.3% in 2020. The drop of the share, reflects the impact of the coronavirus (COVID-19) pandemic in the sector. Due to the outbreak, the number of tourist arrivals in Tanzania declined by nearly 60 percent leading to a fall in the percentage of the contributions (Figure 26)

Figure 16: Trend of share of tourism sector on annual GDP growth 2015-2020



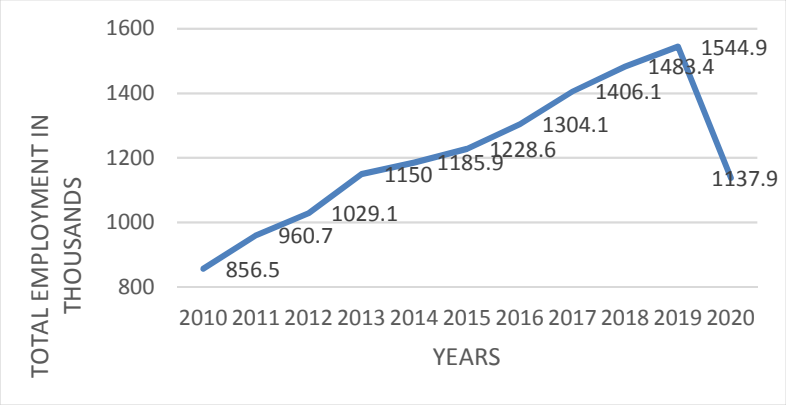
Source: Secondary Data Analysis

4.6 Trend On the Employment Contributions by Tourism Sector

The figure below shows the tourism trend from 2010-2020 where as in 2019 the tourism contributions to employment were high about 1544.9 thousand but suddenly in 202 the number highly dropped to 1137.9 thousand. The sudden drop is related to the slowdown of tourism due to different measures taken to control the situation has

impacted livelihoods of different people engaged directly or indirectly in the tourism sector, and has led to layoffs and unemployment. According to SOLAR Johannes Obeto, Chief Executive Officer at Responsible reported that there has been a post-haste contract termination of both freelance and employed staff without ample notice or specific notifications upon when they are going to resume their jobs. Some employers decided to deduct the wages of their employees as a means to retain some employees. What is obvious is that life will be different compared to the previous years for both directly dismissed staff or to those few that continue to receive underpayments pending return of full operations

Figure 17: Employment trend from the tourism sector 2010-2020



Source; Secondary Data Analysis

Life has been way different too for the cities and towns such as Zanzibar, Karatu, Arusha, Mugumu and Moshi where a great number of youths, breadwinners and others depended on the tourism sector, which have been recently recording international arrivals far below minimum targets and, most times, none at all.

Reduced number of tourists resulted to the depression of hotel activities which has led to closure of most tourist hotels also local businesses which depend on tourism hence decreasing economic activities also fall in income due to the strong backward and forward economic linkages.

4.7 Validity Test

Since the variables (for secondary data) included for the analysis of this study are time series data, before carrying out causality the researcher needed to test for unit root problem which is a common problem in time series data. It is necessary to ensure that the variable is stationary and this is due to the reason that regression on non-stationary series generates spurious results that cannot be used for either forecasting or hypothesis testing. In that case the testing for stationary of our variables Hypothesis on validity test using the Dickey-Fuller (D-F) test for a unit root.

H_0: Non stationary (there is a unit root problem) if Test statistics on the critical value of $Z(t) \geq 0$ - accept the null hypothesis

H_1: Stationary (there is no unit root problem) if Test statistics on the critical value $Z(t) \leq 0$ - reject the null hypothesis. Hence the time series variable is stationary and does not possess unit root.

4.7.1 Validity Test On Number Of Tourists

Dickey-Fuller test for unit root

Number of obs = 5

Table 7: Validity test

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.526	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.5204

The Validity statistic test for the variable (number of tourists) is negative in its all-confidence intervals. With this result, therefore, a null hypothesis for unit root is rejected; the time series variable is stationary and does not possess a unit root problem.

4.7.2 Validity Test On Employment

Dickey-Fuller test for unit root Number of obs = 5

Table 8;Validity Test on Employment

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.621	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.4722

The Validity statistic test for the variable (number of employments) is negative in its all-confidence intervals. With this result, therefore, a null hypothesis for unit root is rejected; the time series variable is stationary and does not possess a unit root problem

4.7.3 VALIDITY TEST ON EARNINGS

Dickey-Fuller test for unit root

Number of obs = 5

Table 9;Validity Test On Earnings

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.795	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.3831

The Validity statistic test for the variable (total Earnings) is negative in its all-confidence intervals. With this result, therefore, a null hypothesis for unit root is rejected; the time series variable is stationary and does not possess a unit root problem)

4.7.4 Validity Test On Share On Gdp

Dickey-Fuller test for unit root Number of obs = 5

Table 10;Validity Test On Share Of GDP

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.385	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.5896

The Validity statistic test for the variable (Share on GDP) is negative in its all-confidence intervals. With this result, therefore, a null hypothesis for unit root is rejected; the time series variable is stationary and does not possess a unit root problem

5. Main Findings

5.1 The Effect Of Covid-19 On Number Of Employment

The linear regression analysis conducted upon Employment contributions shows that Employment contributions from the tourism sector has dropped by 14.15% which supports the null hypothesis for this study whereby we predicted the negative effect of Covid-19 on the employment contributions.

However, despite the huge effect of Covid -19, the P-value (0.93) indicates that the effect is statistically insignificant at the 99% level of confidence. The general model is Lesly explained by the independent variables whereby the R-squared (2%) shows only 2% of the model is significantly explained. This also revealed by the high estimates of the standard errors.

The constant coefficient shows that if the variable Covid-19 could be 0 (without Covid-19), then constant β0 would be 1355.55 thousand total employment contributions by this sector per year. Hence it is statistically significant at the 99% significant level (p=0)1 this is less than 0.05

Table 11:Linear regression

employment	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Covid	-14.15	150.305	-0.09	.93	-431.464	403.164	
Constant	1355.55	86.779	15.62	0	1114.614	1596.486	***

Mean dependent var	1350.833	SD dependent var	155.406
R-squared	0.002	Number of obs	6
F-test	0.009	Prob > F	0.930
Akaike crit. (AIC)	80.473	Bayesian crit. (BIC)	80.056

*** $p<.01$, ** $p<.05$, * $p<.1$

Source; Research Statistics analysis

In the table below the correlation results show that, COVID-19 has a negative relationship with the employment contributions whereby the pandemic reduces the employment by 4.7%.

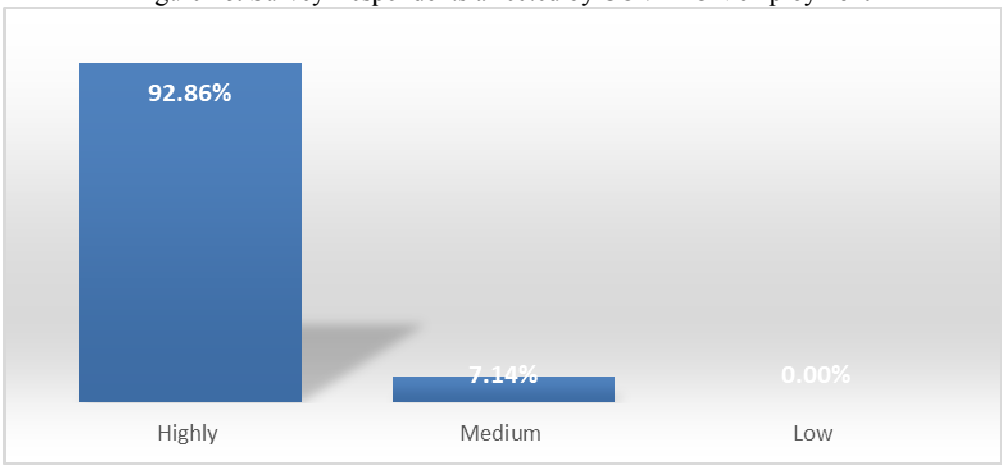
Table 12: correlations upon the employment contributions

Variables	(1)	(2)
(1) Covid	1.000	
(2) employment	-0.0470	1.000

Respondents affected by COVID ON employment

[1] For a variable to be statistically significant, P-value must be less or equal to 0.05

Figure 18: Survey Respondents affected by COVID ON employment



Source; Survey Data,2021

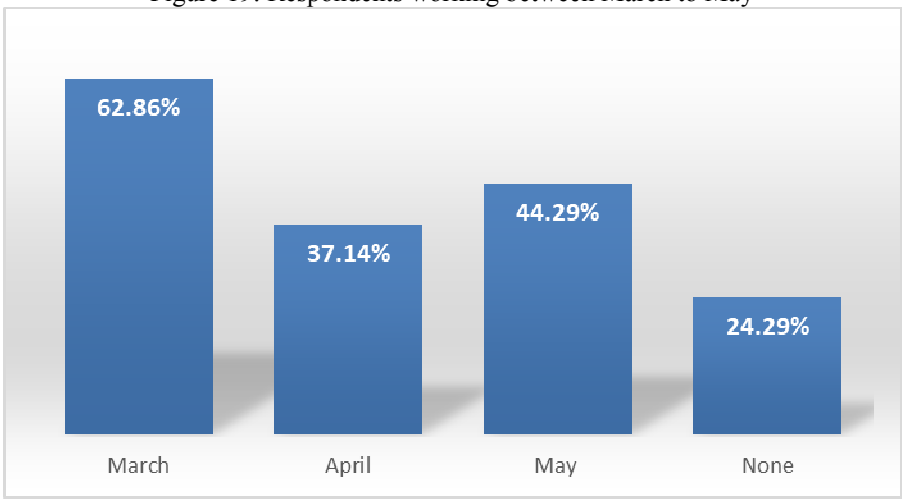
The figure 21 above shows the number of respondents that's their employment was affected by COVID-19 , whereas 92.86% responded that their employments were highly affected by COVID-19 ,it being directly like tour guides, tour drivers or indirectly like MSMEs ,hotel owners and tour operators. While 7.14% responded that they were partially affected and none of the respondents was not affected at all by Covid19

Meanwhile, the figure 22 below presents the months that respondents were working between March- May where as it is the period in which COVID-19 was high in Tanzania.

Each respondent selected precisely the month that he was working between the 3 months and high number of people were still working by March (about 62.86% of the total respondents),

But in April the percentage of people working that month dropped to 37.14% of the total number of respondents while 44.29% were working during May and 24.29% were not working at all for those 3 months. This revealed that lots of people were jobless between April and May because of the outbreak in the country. Most people were forced to shut down their businesses or move to other businesses like making and selling face masks.

Figure 19: Respondents working between March to May



Source; survey data 2021

5.2 The Effect Of Covid-19 On The Total Earnings From Tourism Sector

The Linear regression analysis shows that the total earnings from this sector is less by USD227.533 million which proves right the null hypothesis H0 that the COVID19 effect has a negative impact on the total earnings.

The p-Value (0.6444) shows that the effect is statistically insignificant by 99% on the level of confidence. The R-squared is less significantly explained by 5.9%, this is caused by a large number of standard errors about 455.721 which is a result of less variables explaining the dependent variable.

The constant coefficient shows that if the variable covid is 0 then the constant β0 would be USD 2129.762 million, which is statistically significant by 99% (p-value =0.001) which is less than 0.05 hence significant

Table 13:Linear regression

earnings	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Covid	-227.533	455.721	-0.50	.644	-1492.816	1037.751	
Constant	2129.762	263.111	8.09	.001	1399.251	2860.274	***
Mean dependent var	2053.918	SD dependent var	485.111				
R-squared	0.059	Number of obs	6				
F-test	0.249	Prob > F	0.644				
Akaike crit. (AIC)	93.783	Bayesian crit. (BIC)	93.367				
*** p<.01, ** p<.05, * p<.1							

Source; Statistical data 2021

Correlation Upon the total earnings

The correlation matrix shows the relationship between the dependent variable and independent variable. In the table above the correlation results show that, COVID-19 has a negative relationship with the tourism earning whereby the pandemic reduces the sector's earnings by 24.2%.

Table 14: correlation upon total earning

Variables	(1)	(2)
(1) Covid	1.000	
(2) earnings	-0.242	1.000

Source; Statistical data 2021

Respondent's monthly income from March – May 2020

The analysis of primary data on respondent's income revealed a negative change in income by individual working in the tourism sector.

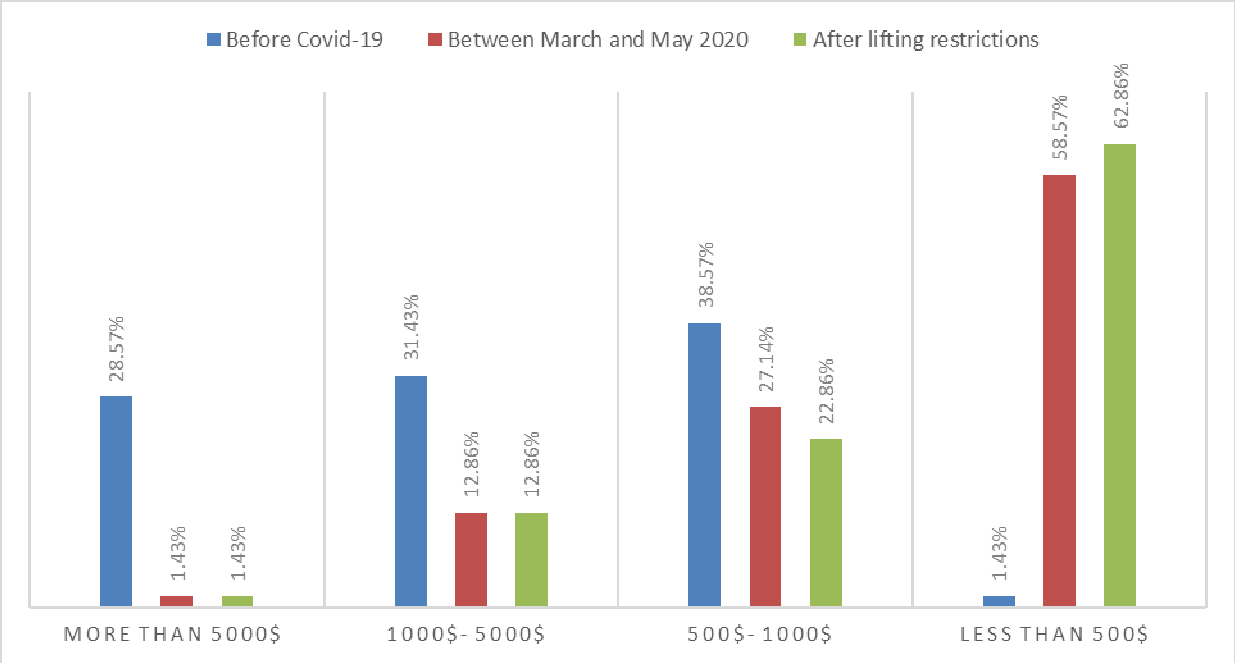
Respondents were asked on the estimates of their income before the outbreak of the pandemic, during the time that the pandemic was on the peak in Tanzania and after the high COVID-19 season in Tanzania. This was questioned in order to get clear data about the economic impacts brought up by Covid-19, the researcher had to check the income trend between the employers and stakeholders under this sector. In figure 235 below ,the trend was divided into 3 categories ;Before COVID-19 (meaning the period when COVID-19 cases were not recorded Tanzania , Between March-May (where as it was the time that Tanzania confirmed the number of COVID cases in the country and by this time some measures like partial restriction on the international flights was implemented) and After lifting the restrictions (By this time the Tanzanian government confirmed that there were low number of cases in Tanzania hence most restrictions were lifted)

Before Covid-19: By this time most respondents (31.43%) were earning between$1000-$5000 per month, followed by 28.57% who were earning above $5000 per month while very few respondents (about 1.43%) were earning less than $500 per month.

During Covid -19 (between March-May) : Tables turned,this time only 1.43% of the respondents were earning above $5000 per month, and 58.57% were earning less than $500 per month ,the researcher argues that this was due to the restrictions imposed both in and out the country which affected the total number of tourists inflows hence many respondents were either jobless due to shutdown of business and suspension of employees for most company to reduce running costs while receiving less from their jobs by working in shifts .

After restrictions were Lifted: By this time the government lifted some restrictions and allowed the inflow of international visitors but still the situation wasn't as before and this is because most of the countries with lots of tourists like USA and European countries were still under lockdown, so it was still a challenge in the tourism sector and most companies decided to shutdown

Figure 20: Estimated Income of respondents before the outbreak



Source: Survey Data, 2021

5.3 The Effect of Covid-19 On The Share On Gdp

Regression results show a decline of 2.3% of the share of tourism sector in the National GDP growth. However, the p-value (0.24) indicate the statistical insignificant of the decline. Analysis further reveal that the sector would contribute about 10% in the GDP. The R-SQUEARED shows the variables in the model has about 32% ability of explaining the dependent variable.

Table 15:Linear regression analysis of the tourism contributions to the national GDP growth Source;

shareofgdp	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Covid	-2.3	1.666	-1.38	.24	-6.925	2.325	
Constant	10.3	.962	10.71	0	7.63	12.97	***

Mean dependent var	9.533	SD dependent var	2.091
R-squared	0.323	Number of obs	6
F-test	1.906	Prob > F	0.240
Akaike crit. (AIC)	26.444	Bayesian crit. (BIC)	26.028

*** p<.01, ** p<.05, * p<.1

Statistical data,2021

The correlation coefficient reveals a strong negative effect of the pandemic on the share of the sector in the GDP. The pandemic reduces the share by 56.8% of tourism in the national GDP growth.

Table 16:Correlation for the contribution to the national GDP

Variables	(1)	(2)
(1) Covid	1.000	
(2) shareofgdp	-0.568	1.000

Source; Statistical Data 2021

5.4 Effect Of Covid On Number Of Tourists With Tourism Seasons

The researcher believes that there are other factors affecting Number of tourist income apart from COVID19.Tour Seasons being one amongst them. Tanzania Tourism is divided into two seasons; (low season January- March, November – December) Normally by this time it's a rainy season hence few number of tourists visit. The high season (June- October) by this time the weather in Tanzania is mostly sunny hence tourists can enjoy different tour activities.

Linear regression

Table 17;Linear regression Regression No. of Toursists VS Covid and Season

nooftourist	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Season	3388.713	15879.134	0.21	.833	-29192.578	35970.004	
Covid	-58060.349	16206.573	-3.58	.001	-91313.49	-24807.208	***
Constant	113685.45	14087.191	8.07	0	84780.925	142589.98	***
Mean dependent var	80543.600	SD dependent var	50541.226				
R-squared	0.323	Number of obs	30				
F-test	6.455	Prob > F	0.005				
Akaike crit. (AIC)	728.227	Bayesian crit. (BIC)	732.431				
*** p<.01, ** p<.05, * p<.1							

The regression results upon the effect on seasons shows an increase of 3388.713 tourists the researcher suggests the reason is due to the opening of borders by the end of 2020 hence causing an increase on the tourist inflows by the low season unlike other years

The p-Value (0.833) shows that the effect is statistically insignificant at 99% on the level of confidence. The R-squared is less significantly explained by 3.2%, this is caused by a large number of standard errors about 15879.134 which is a result of less variables explaining the dependent variable.

The constant coefficient shows that without considering variable season then the constant β0 would be 113685.45 thousand, which is statistically significant by 99% (p-value =0) which is less than 0.05 hence significant.

No. Of tourist

Table 18; descriptive analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
No Covid	14	111699.2	48683.69	1125	163910
Covid	22	50984.45	35487.18	122	92400
High season	15	78367.27	58175.11	296	163910
Low Season	15	82719.93	43552.23	1125	160300

From the descriptive analysis number of Tourists observed in months from January 2019 to December 2021 shows a dramatic fall of number of tourist inflows in the times where there is Covid recording a mean of 50984.45 compared to the times of no covid with a mean of 111699.2

Correlation coefficients of the two variables was also estimated to see the direction of their relationship as well as the magnitude of the effect.

Table 19: Matrix of correlations

Variables	(1)	(2)
(1) Covid	1.000	
(2) Number of tourists	-0.370	1.000

Source: Secondary Data Analysis

In the table above the correlation results show that, COVID-19 has a medium negative relationship with the number of incoming tourists in the country whereby the pandemic reduces the number of incoming tourists by 37%.

6. Conclusions, Recommendations And Areas For Further Studies

6.1 Conclusion

The objective of the study was to investigate the impact COVID-19 on the tourism industry through a case study of Tanzania. The empirical study was conducted through online surveys and interviews. The researcher was able to collect 70 responses from the online interview out of the proposed 74 interviews. Results from the study indicate that the tourism industry contributes significantly to the economic development of the country. Among the benefits that tourism contributes are direct and indirect job creation, foreign exchange earnings, poverty reduction, government revenues, and improvement of public services such as hospitals, schools and roads.

However, from the study it was revealed that the current pandemic (COVID-19) has an adverse effect on the tourism industry in Tanzania and worldwide as a whole. For example the receipts have declined receipts by 59.2 percent to USD 1,061.6 million by the end of the year 2020 as compared to USD 2604.46 million in 2019 due to decrease in number of tourist arrivals attributable to COVID-19 pandemic.

Furthermore, the number of tourism visiting the country has been dramatically affected, on the first quarter of 2020 (there was a total of 141,097 tourists who visited) compared to 2019 (1st quarter in which 351,755 tourists arrivals were recorded) and 2018 (1st quarter received 364,886 tourists). The worst case was on the second quarter 2020 (in which only 757 tourists arrived) as compared to 2019(2nd quarter whereby 303,794 tourists visited) and 2018 (2nd quarter in which a total of 302,052 tourists arrived). This shows that there has been a fall of 42.7% in the1st quarter and 99.5% fall in the 2nd quarter in 2020 as compared to 2019. In total by the end of the year 2020 the number of international tourist arrivals in 2020 declined to 616,491 from 1,527,230 visitors recorded in the year ending December 2019. During December 2020, services receipts amounted to USD 234.7 million compared to USD430.5 million in December 2019. It has been observed by the researcher that the fall on the number of tourists visiting Tanzania is a result of the challenges related to the outbreak of COVID-19.

Apart from that the researcher revealed that the employment sector was also affected especially for the people whom on one way or another are connected to tourism. In March 2020 the first case of Covid19 was announced in Tanzania the situation got worse day by day up to May and number of tourists visiting Tanzania started to decline (as shown in figure 8). During this period most micro entrepreneurs, Tour companies and hotels shut down their businesses and other tour companies suspended some workers because the companies couldn't afford to cover their salaries and insurances.

According to the survey conducted by the researcher explains further on the employment effects from March to May. During March most people were still working but in April the number of people working decreased to 37.14 % from 62.8% while almost 24.29% of people were not working in all 3 months. Most companies couldn't operate during this time since their revenues were affected, according to the data collected from the survey, it shows most people were earning from 500$- more than 5000$ per month before Covid-19 entered in Tanzania while only 1% received less than 500$ (as shown in Figure 10). Most of these individuals were self-employed and some were under a Tour operating companies'. Comparing it to the time when COVID-19 cases were announced in Tanzania, it is shown that Individual incomes in the tourism field dropped highly during these months. 59% of the respondents received less than 500$ unlike before COVID-19 when only 1% of the respondents received less than 500$ per month.

Apart from COVID-19 there are some other factors impacting the tourism of Tanzania.

Tanzania tourism industry depends on international tourists for tourism activities; introductions of man-made wildlife parks have proved to be a threat to tourists‟ inflow to Tanzania. For example, in United Kingdom there are both man-made and natural wildlife parks such as West Midland Safari Park and many others (www.informaton-britain.co.uk). The current pandemic led people to spend thrift made tourists to shift from natural wildlife to man-made parks. Aggressive marketing to potential domestic tourists is required to encourage them to visit tourism sites within the country. Currently, domestic tourists account for 25% of the total tourists‟ inflow during 2008. This strategy could help to increase domestic currency earnings. Communication barriers are another factor.

Tanzania is a country that uses Swahili as a first spoken language for all communication whilst English is the second official language. Therefore, tourists from non-English speaking countries opt to visit areas where communication is not a problem hence contributing to lowering tourists‟ inflow in Tanzania.

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6.2 Recommendations

Since the situation is getting better day by day, the government should adjust the advertisements upon the Tanzanian tourism to an international level. Currently the Tanzania Tourist board has started a Tv Channel that advertises more about the tourism in Tanzania but the channel is currently local based meaning only local citizens can get an access to it.

The government should also consider tax and penalties reduction for the tour operators since its visible that the pandemic has highly affected them. This will reduce the operating costs for the operators hence reducing the prices to the clients which will attract more tourists and increase number of bookings, it will lower the risk of businesses shut-down and lastly it will help them maintain the right number of employees and avoid terminations.

The government should also consider building more affordable accommodations in the national park areas especially Serengeti and Ngorongoro which so far have the most expensive hotels making it so hard for many visitors to afford the costs. This will make it easy even for the tourists on low budget to visit the area.

The Government should also increase the incentives so as to attract more tourists. A good example is by reducing the park fees, this will significantly reduce the costs to the travel clients hence attracting more tourists.

The tour operators should consider lowering the safari Vans hiring so as to attract more locals and put more focus onto the local market since it has proven to be the top revive during this pandemic situation.

The tour companies should train their workers upon the Standard Operating Procedures (SOPS) of operating the business as directed by the World Health Organization (WHO) especially during this period of the pandemic and ensure that each of them is followed so as to make them feel safe when travelling around Tanzania.

Due to the fact that there are still low chances of tourists ,the government and tour operators should utilize

this time to encourage local tourism through educating Tanzanians upon the importance of visiting the national parks, historical sites, mountains and many other Tourist centers , promotions upon the vacation packages , also most Tanzanians are middle income earners so by lowering the costs on the hotels and the Tourism centers most locals will be able to afford travelling around different places.

The Tourism stakeholders should be encouraged not to divert from the tourism market to other businesses but instead take advantage of the current situation and set new strategies in order to revive the industry.

6.3 Limitation Of The Study

This study was conducted during the times where COVID19 was at the peak in Tanzania hence the collection of data was so challenging. It was so hard for the researcher to obtain monthly data especially upo the employment rates from tourism and tourism monthly income hence making it difficult to run some more analysis.Also there were very few publications about this topic making the available data limited.

6.4 Future Research Directions

From the analysis made in this research, the researcher advises upon further study on general economic impacts of COVID19, also measuring how Tanzania benefited from COVID 19 in the tourism sector and how the Tourism sector managed to operate during thr COVID times.

References

Al-Tawfiq, J. A., & Memish, Z. A. (2014). Mass gathering medicine: 2014 Hajj and Umra preparation as a leading example. International Journal of Infectious Diseases, 27, 26-31.

Amin and Thrift. (1997). Globalization, socio-economics, territoriality. In Geographies of Economics, ed. R. Lee and J.

Anderson, R. M., Heesterbeek, H., Klinkenberg, D., & Hollingsworth, T. D. (2020). How will country-based mitigation measures influence the course of the COVID-19 epidemic?. The Lancet, 395(10228), 931-934.

Apostolopoulos, Y. (1999). Political instability, war and tourism in Cyprus: Effects, management and prospects for recovery .Journal of Travel Research, 38, 51-56.

Bai, Y., Yao, L., Wei, T., Tian, F., Jin, D. Y., Chen, L., & Wang, M. (2020). Presumed asymptomatic carrier transmission of COVID-19. Jama, 323(14), 1406-1407.

Baldwin, R., & Weder di Mauro, B. (2020). Economics in the Time of COVID-19.

Belsky. (1999). Misrepresenting communities: the politics of community-based

Bermejo, M., Rodríguez-Teijeiro, J. D., Illera, G., Barroso, A., Vilà, C., & Walsh, P. D. (2006). Ebola outbreak killed 5000 gorillas. Science, 314(5805), 1564-1564.

Berry, M., Gamieldien, J., & Fielding, B. C. (2015). Identification of new respiratory viruses in the new millennium. Viruses, 7(3), 996-1019.

Biek, R., Walsh, P. D., Leroy, E. M., & Real, L. A. (2006). Recent common ancestry of Ebola Zaire virus found in a bat reservoir. PLoS Pathog, 2(10), e90.

Blake, A., & Sinclair, T. (2003). Tourism crisis management: US response to September Annals of Tourism Research, 30(4), 813-832.

Breugelmans, J. G., Zucs, P., Porten, K., Broll, S., Niedrig, M., Ammon, A., & Krause, G. (2004). SARS transmission and commercial aircraft. Emerging infectious diseases, 10(8), 1502.

Britton. (1982). The political economy of tourism in the Third World. Annals of

Brunt, P., Mawby, R., &Hambly, Z. (2000). Tourist victimization and the fear of crime on holiday.

Butler. (1980). Introduction, in R. Butler and D. Pearce (eds) Change in Tourism. London: Route edge

Chung, J. Y., & Petrick, J. F. (2015). Measuring price fairness: Development of a multidimensional scale. Journal of Travel & Tourism Marketing, 32(7), 907-922.

Coker, R. J., Hunter, B. M., Rudge, J. W., Liverani, M., & Hanvoravongchai, P. (2011). Emerging infectious diseases in southeast Asia: regional challenges to control. The Lancet, 377(9765), 599-609

Cooper. (2005). P.S. (2008). Business Research Methods. 10th Edition. New York: McGraw-Hill/Irwin.Coronavirus disease 2019 (COVID-19) situation reports https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports

Date accessed: February 17, 2020

David M ,Taubenberger, J. K., & Morens(2006). 1918 Influenza: the mother of all pandemics. Revista Biomedica, 17(1), 69-79.

Dodds, R., & Butler, R. (Eds.). (2019). Overtourism: Issues, realities and solutions (Vol. 1). Walter de Gruyter GmbH & Co KG.

Fan, Y. Y. , Jamison, D. T. , & Summers, L. H. (2018). Pandemic risk: how large are the expected losses? Bulletin of the World Health Organization , 96 (2), 129–134.]

Fennell, D. A. (2017). Tourism ethics. Channel View Publications.

Ferguson, N. M., Cummings, D. A., Fraser, C., Cajka, J. C., Cooley, P. C., & Burke, D. S. (2006). Strategies for mitigating an influenza pandemic. Nature, 442(7101), 448-452.

Fischhoff, B.,Wandi, B. P., &Downs, W.J. (2004). "Travel Risks in a Time of Terror: Judgments and Choices", in Risk Analysis.

fundamental normative demands or a descriptive application? Journal of Hospitality, Tourism and Leisure, 4 (2)

Gray, G. C., & Kayali, G. (2009). Facing pandemic influenza threats: the importance of including poultry and swine workers in preparedness plans. Poultry science, 88(4), 880-884.

Gray, G. C., & Mazet, J. A. (2020). To succeed, one health must win animal agriculture's stronger collaboration. Clinical Infectious Diseases, 70(3), 535-537.g

Greger, M. (2007). The human/animal interface: emergence and resurgence of zoonotic infectious diseases. Critical reviews in microbiology, 33(4), 243-299.

Hatchett, R. J., Mecher, C. E., & Lipsitch, M. (2007). Public health interventions and epidemic intensity during the 1918 influenza pandemic. Proceedings of the National Academy of Sciences, 104(18), 7582-7587.

Hennig-Thurau, T., & Walsh, G. (2004). Electronic word-of-mouth: motives for and consequences of reading consumer articulations on the Internet. International Journal of Electronic Commerce

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., ... & Cheng, Z. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. The lancet, 395(10223), 497-506.

Johnson, N. P., & Mueller, J. (2002). Updating the accounts: global mortality of the 1918-1920" Spanish" influenza pandemic. Bulletin of the History of Medicine, 105-115.

Joo, H., Maskery, B. A., Berro, A. D., Rotz, L. D., Lee, Y. K., & Brown, C. M. (2019). Economic impact of the 2015 MERS outbreak on the Republic of Korea's tourism-related industries. Health security, 17(2), 100-108.

Kelly, H., Peck, H. A., Laurie, K. L., Wu, P., Nishiura, H., & Cowling, B. J. (2011). The age-specific cumulative incidence of infection with pandemic influenza H1N1 2009 was similar in various countries prior to vaccination. PLoS One, 6(8), e21828.

Kesar, O., & Ferjanić, D. (2010). Key aspects of managing successful wine tourism development in times of global economic crisis–a case of Croatia. Acta turistica, 22(1), 99-131

Khiabanian, H., Trifonov, V., & Rabadan, R. (2009). Reassortment patterns in Swine influenza viruses. PloS one, 4(10), e7366.

Killingray, D., & Phillips, H. (Eds.). (2003). The Spanish Influenza Pandemic of 1918-1919: New Perspectives. Routledge.

Korstanje, M.E. (2011). The fear of traveling: a new perspective for tourism and hospitality. Anatolia– An International Journal of Tourism and Hospitality Research

Labonté, R. (2011). Toward a post-Charter health promotion. Health Promotion International.

Labonté, R., Mohindra, K., & Schrecker, T. (2011). The growing impact of globalization for health and public health practice. Annual review of public health, 32, 263-283.

Lepp, A., & Gibson, H. (2008). Sensation seeking and tourism: Tourist role, perception of risk and destination choice. Tourism Management

Leroy, E. M., Rouquet, P., Formenty, P., Souquière, S., Kilbourne, A., Froment, J. M., ... & Zaki, S. R. (2004). Multiple Ebola virus transmission events and rapid decline of central African wildlife. Science, 303(5656), 387-390.

Li, C., Yang, Y., & Ren, L. (2020). Genetic evolution analysis of 2019 novel coronavirus and coronavirus from other species. Infection, Genetics and Evolution, 104285.

Lock, S. (2020). Global change in travel and tourism revenue due to COVID-19 2019-2020.

Long, Q. X., Tang, X. J., Shi, Q. L., Li, Q., Deng, H. J., Yuan, J., ... & Su, K. (2020). Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections. Nature medicine, 26(8), 1200-1204.

Maphanga, P. M., & Henama, U. S. (2019). The tourism impact of Ebola in Africa: Lessons on crisis management. African Journal of Hospitality, Tourism and Leisure, 8(3).

Markel, H., Stern, A. M., Navarro, J. A., Michalsen, J. R., Monto, A. S., & DiGiovanni Jr, C. (2006). Nonpharmaceutical influenza mitigation strategies, US communities, 1918–1920 pandemic. Emerging infectious diseases, 12(12), 1961.

McKercher, B., & Chon, K. (2004). The over-reaction to SARS and the collapse of Asian tourism. Annals of tourism research, 31(3), 716.

Ministry of Natural Resources and Tourism 2019 , "THE TOURISM STATISTICAL BULLETIN"

Monath, T. P. (1999). Ecology of Marburg and Ebola viruses: speculations and directions for future research. The Journal of infectious diseases, 179(Supplement_1), S127-S138.

Nicolaides, A. (2015). Tourism Stakeholder Theory in practice: instrumental business grounds,

Novelli, M., Burgess, L. G., Jones, A., & Ritchie, B. W. (2018). 'No Ebola… still doomed'–The Ebola-induced tourism crisis. Annals of Tourism Research, 70, 76-87.

Olsen,Rota, P. A., Oberste, M. S., Monroe, S. S., Nix, W. A., Campagnoli, R., Icenogle, J. P., ... & Tong, S. (2003).

Characterization of a novel coronavirus associated with severe acute respiratory syndrome. science, 300(5624), 1394-1399.
Petersen, L. R., Jamieson, D. J., Powers, A. M., & Honein, M. A. (2016). Zika virus. New England Journal of Medicine, 374(16), 1552-1563.
Peterson, A. T., Bauer, J. T., & Mills, J. N. (2004). Ecologic and geographic distribution of filovirus disease. Emerging infectious diseases, 10(1), 40.
Pongsiri, M. J., Roman, J., Ezenwa, V. O., Goldberg, T. L., Koren, H. S., Newbold, S. C., ... & Salkeld, D. J. (2009). Biodiversity loss affects global disease ecology. Bioscience, 59(11), 945-954.
Poon. (1989). Competitive strategies for a „new tourism". In Progress in Tourism,Recreation and Hospitality Management, ed. C. P. Cooper
pork sectors. Health Economics, 22(7), 824–834. doi: 10.1002/hec.2862
Pourrut, X., Kumulungui, B., Wittmann, T., Moussavou, G., Délicat, A., Yaba, P., ... & Leroy, E. M. (2005). The natural history of Ebola virus in Africa. Microbes and infection, 7(7-8), 1005-1014.
Preister, K. (1989). The theory and management of tourism impacts. Tourism Recreation Research, 14(1), 15-22.
Priest, G. R. (1990). Volcanic and tectonic evolution of the Cascade volcanic arc, central Oregon. Journal of Geophysical Research: Solid Earth, 95(B12), 19583-19599.
Reisinger, Y., &Mavondo, F. (2005). Travel anxiety and intentions to travel internationally: Implications of travelrisk perception. Journal of Travel Research rural ecotourism in Gales Point Manatee, Belize. Rural Sociology.
Roehl, W. S., & Fesenmaier, D. R. (1992). Risk perceptions and pleasure travel: An exploratory analysis. Journal of Travel research, 30(4), 17-26.
Rothe, C., Schunk, M., Sothmann, P., Bretzel, G., Froeschl, G., Wallrauch, C., ... & Seilmaier, M. (2020). Transmission of 2019-nCoV infection from an asymptomatic contact in Germany. New England Journal of Medicine, 382(10), 970-971.
Russy, D. & Smith, R. (2013) The economic impact of H1N1 on Mexico's tourist and
Santana, G. (2004). Crisis management and tourism: Beyond the rhetoric. Journal of Travel &Tourism Marketing
Schmidt-Chanasit, Steinhagen, K., Probst, C., Radzimski, C., J., Emmerich, P., van Esbroeck, M., ... & Lattwein, E. (2016). Serodiagnosis of Zika virus (ZIKV) infections by a novel NS1-based ELISA devoid of cross-reactivity with dengue virus antibodies: a multicohort study of assay performance, 2015 to 2016. Eurosurveillance, 21(50), 30426.
Seraphin, H., Sheeran, P., & Pilato, M. (2018). Over-tourism and the fall of Venice as a destination. Journal of Destination Marketing & Management, 9, 374-376.
Siu, A., & Wong, Y. R. (2004). Economic impact of SARS: the case of Hong Kong. Asian Economic Papers, 3(1), 62-83.
Sjöberg, L. (2000). Factors in risk perception. Risk analysis, 20(1), 1-12.
Sönmez, S. &Graefe, A.R. (1998b). Determining future travel behavior from past travel experience and perceptions of risk and safety
Tanzania invest , " Income report 2019"
Tanzania Tourist Board 2020 , "Geographical facts about Tanzania ."
Tarlow, P. (2002). Touri in the twenty-first century
Tarlow, P. (2005). Dark Tourism: The Appealing 'Dark'Side of Tourism and More. In, M. Novelli, ed. Niche Tourism: Contemporary Issues, Trends and Cases pp. 47–57.
Taubenberger, J. K., & Morens, D. M. (2006). 1918 Influenza: the mother of all pandemics. Revista Biomedica, 17(1), 69-79.
Taylor. (1995). The community approach: does it really work? Tourism Management
Teague, P. (1990). The Political Economy of the Regulation School and the Flexible Specialization Scenario, Journal of Economic Studies.
Thorne, P. S. (2007). Environmental health impacts of concentrated animal feeding operations: anticipating hazards—searching for solutions. Environmental Health Perspectives, 115(2), 296-297.
Tickell and Peck . (1992). Accumulation, regulation and the geographiesof post–Fordism: missing links in regulationist research.Tourism Research.
Tourism, M. o. (2019). The Tourism Statistical Bulletin.
Travel and Tourism Economic Impact (WTTC, 2017. (2017
Traveller, C. N. (2020). Coronavirus Air Travel (Doctoral dissertation, These Numbers Show the Massive Impact of the Pandemic).
Urry, J. (1990). The consumption of tourism. Sociology, 24(1), 23-35.
Vojislav, A. Popovic (1972). Tourism in eastern Africa.
Wamboye, E., & Tiruneh, E. A. (2017). Exploring the nature, motives, and implications of foreign capital in Africa. In Foreign Capital Flows and Economic Development in Africa (pp. 3-26). Palgrave Macmillan, New York.

Wu ,Kwok, K. O., Riley, S., Perera, R. A., Wei, V. W., P., Wei, L., ... & Cowling, B. J. (2017). Relative incidence and individual-level severity of seasonal influenza A H3N2 compared with 2009 pandemic H1N1. BMC infectious diseases, 17(1), 337.