EFFECTS OF TOURISM SECTOR DEVELOPMENT ON ECONOMIC GROWTH IN ZANZIBAR: 2005 -2020

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CERTIFICATION

The undersigned certifies that he has read and hereby commends for acceptance by the Open University of Tanzania a dissertation titled; **"Effects of tourism sector development on economic growth in Zanzibar : 2005 -2020"** in partial fulfilment of the requirements for the award of the degree of the Master of science in Economics (MSc.-Econ).

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Dr. Timothy Lyanga

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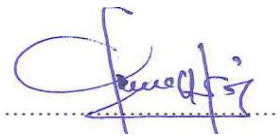
DECLARATION

I, **Ahmed Yahya Issa,** do hereby declare that, the work presented in this dissertation is original. It has never been presented to any other University or Institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfilment of the requirement for the Master's Degree of Economics (MSc-Econ).



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DEDICATION

This dissertation is faithful to my parents, wife and my relatives for them encourages and support that geared me towards completion of this dissertation.

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Thanks to The almighty God for giving me the strength and helping me in all situations.

ABSTRACT

The intention of the thesis is to analyze the effects of tourism sector development on economic growth in Zanzibar. It involved and focus on tourism sector in Zanzibar for a period of 15 years, from 2005 - 2020. The study employed foreign exchange rate, government expenditure and international tourist arrivals as independent value in economic growth. The thesis employed Tourism led growth hypothesis and endogenous growth theory that embraced a multiple regression model in scrutinizing the data on examine the effects of tourism sector development on economic growth in Zanzibar. The study employed time series research design, the analyzed data obtained from Office of chief government statistician (OCGS), Zanzibar tourism Commission (ZTC), Zanzibar investment promotion authority (ZIPA), Migration of Zanzibar and Bank of Tanzania (BOT). The findings expose that there is a positive affiliation between foreign exchange rate, government expenditure and international tourist arrivals with insignificant relation to economic growth of Zanzibar. The thesis concluded that there is need for government intervention into the tourism sector through relevant policies such as enhancing the tax body on all foreign companies dealing with tourism activities within the country; there is high influence of tourism sector in economic growth of Zanzibar being a case as shown on the regression model results. Furthermore, this study recommends that Zanzibar should ensure political, economic and social stability for attraction of more high quality tourists.

Keywords: *Foreign Exchange Rate, Government Expenditure, International Tourist Arrival.*

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LIST OF ABBREVIATIONS AND ACRONYMS

DF	Degree of freedom
ECM	Error Correction Model
ELGH	Export-led growth hypothesis
GDP	Growth domestic product
MS	Mean square
NBN	National Broadband Network
OCGS	Office of chief government statistician
SMEs	Small- and medium sized enterprises
SS	Sum of square
TLGH	Tourism-led growth hypothesis
UNWTO	United nation world tourism organization.
URT	United republic of Tanzania
WTC	World tourism Organization
WTTC	World Travel and Tourism Council
ZIPA	Zanzibar investment promotion authority
ZTC	Zanzibar tourism Commission

CHAPTER ONE

INTRODUCTION

1.1 Overview

The section defines background of research, objectives of the thesis statement of the problem, research hypothesis, and significance of research, scope of research and limitation of research.

1.2 Background Information

Economic growth in many developing countries is facing the challenges of climatic changes and tourism sector becoming necessary alternatives in contribution of national income and minimizes the challenges of budget deficit. Based on development of peoples over income and job innovation, tourism sector framing an important assistance in several countries towards the balance of payment, poverty mitigation, foreign exchange invention, promotion of hospitality sector, and stimulate development of transportation industry (Sarpong et al. (2020), Ogutu and Gisore, (2015)).

Now day does tourism seem to be a broadly current vehicle for economic advancement (Sharpley, 2010). In most countries, the industry measured as necessary sector on stimulating national income, since it effects those economic development sectors allied with it, and at the same time maximize domestic demand, generates jobs and subsidizes definitely to the balance of payments and consents a better reallocation of revenue. Also the sectors contributes in rising the rate of investment in destination provinces, together with increase the number of tourism attraction on goods and services, actually the sector require low levels of investment

in both private and public sectors compared to another industry. On identifying the significance of tourism sector in Zanzibar the research come on examine appropriate effects of tourism development in a country.

Despite of the higher cost required in investment for prepare equipment and infrastructure, the investment in tourism sector demand low capital compared to another industrial investment, since tourism activity are considered in the incidence of small- and medium sized enterprises (SMEs), which diversify many products and services. However, the higher investment in tourist industry influenced by the country, should be measured as a means of motivate employment, economic growth and promotion of social small stakeholders (Hall & Michael, 1991; Reid, 2003).

However, in normal situation tourism sector generate employment opportunity in the country and speed up the circulation of currency, facilitate investment on infrastructure and expand country interaction of peoples, also the sector rising the public income through direct and indirect tax collection. The new attraction of tourism determinants can be stimulated by generates new sources of jobs which speed up by number of new opening hotels and restaurants and widening transportation sector.

Tourism in Zanzibar facilitate international trade and services, by increasing the number of imported goods, innovation of new market for the domestic products such as sea weeds and cloves and increase volume of foreign currency, also the country expand the sector by building new infrastructure like proposed new port at Mangapwani Unguja and renovate Abeid Amani international airport, all of this

enhance the development of tourism industry in Zanzibar.

The report of World Tourism and Travel Council in 2020 flash that globally, tourism industry in 2019 contribute US$ 8.9 trillion (10.3%) of world growth domestic product (GDP) and 330 million employment opportunities , which describe 10% of all world employment opportunities. The world tourism and travel council (WTTC, 2020) report set out that the growth rate of the world tourism industry in 2019 jumped by 3.5% as related to the word economic growth rate of 2.5%.

In Africa, the World tourism Organization (WTO, 2020) represents similar image in the tourism industry with forecast growth rate of 5.5% in a year for a period of 1995 -20, as upon the world rate of 4.1% among 77 Millions of international tourists arrival in the region at 2020, approximately 17 Millions of arrival was in East African countries and forms an average growth rate of 5.3%.

Tourism industry becomes important source of revenue in Zanzibar's economy and larger source of foreign exchange earnings. In 2018, the industry provide an estimated of 82% foreign exchange gain and contributed earning of 28% to the islands growth domestic product (GDP). In 2017, tourism industry contributed of 68% investments as approved by Zanzibar investment promotion authority (ZIPA). Also the sector provided an estimated of 50,000 indirect and 22,000 direct jobs in out of 1.4 million peoples around total island's population.

In regards of national account, food services and accommodation give out around of $135 million from 520,809 tourist arrivals in 2018, which estimated of $260 per

tourist visit. Annually tourist arrivals was increased by around 15%, this growth rate has exceeded targeted Zanzibar Tourism Development Policy (2003) that set tourist arrivals in 2020 should be 500,000 (Commission of Tourism Zanzibar, 2020). The highest relation between economic growth of Zanzibar and tourism sector, incite the study to examine effects of tourism sector on economic growth in Zanzibar for period of 2005-2020.

1.3 Statement of Problem

Tourism industry consider a specific opportunity on job creation and contribution in economic growth of Zanzibar, Since after fallen of clove production (ZTC, 2018), the sector contributed an estimate of 22,000 direct and 50,000 indirect employment opportunity in out of 1.4 million peoples (ZIPA, 2017). According to national accounts, food services and accommodation in (2018) the industry provided earn of $135 million from 520,809 tourist arrivals. In spite of, the proof on rapid rise of tourism sector in Zanzibar, as verified by increase visitor occupied hotel beds to 507,841 (ZTC, December, 2020), the industry need special attention for sustainable economic growth of Zanzibar and help to support economic retrieval after finished COVID-19, through job innovation (ZTC,2020).

Despite of the highest growth on tourism industry in Zanzibar, a question arise to whether annually super rising on the number of tourist visit in Zanzibar has contribute on economic growth of peoples, as every year government announces higher budget deficit and rise un answered question, this proved by poor public infrastructure, un adequate government services and number of poverty remain in higher level. Consequently, the study examine Tourism sector development on

Economic growth in Zanzibar from 2005-2020.

1.4 Objective of Research

1.4.1 Research General Objective

To examine effects of tourism sector development on economic growth in Zanzibar from 2005 - 2020.

1.4.2 Specific Objective

i) To examine effects of international tourist arrival on economic growth of Zanzibar from 2005 -2020.

ii) To assess the foreign exchange rate on economic growth of Zanzibar from 2005 -2020.

iii) To examine effects of government expenditure on economic growth of Zanzibar from 2005 -2020.

1.5 Research Hypotheses

i) H_1: International tourist arrival has no effect on economic growth.

ii) H_2: Foreign exchange rate has negative influence economic growth.

iii) H_3: Government expenditure has positive influence on economic growth.

1.6 Scope of the Study

This study examines tourism sector on economic growth in Zanzibar and justify the data from periods of 2005 -2020, it was the period where Zanzibar implement the social development overall economic goal in campaign of vision 2020, on erase poverty and obtain human sustainable development in Zanzibar.

1.7 Significance of Study

Now days tourism sector take an important role in each economy and indicate a vital source of income, employment opportunity and capability of human entrepreneurial significance in a country (WTTC, 2020), in most time specialization in tourism and rapid economic growth become a heart area of research, and many researchers interest to support empirically the direct effect of tourism on economic growth (UNWTO 2018). Despite of tourism sector has large benefit in contribution of economic growth in many developing countries, there is no enough study in Zanzibar which identify similarity between economic growth and tourism sector, unless many study conducted looking on challenges facing hotel and tourism sector like on study of (Tourism sector in Zanzibar and Challenges for pro-poor growth, 2014). Particularly, this study will be advanced by examine effects of Tourism sector development on Economic growth in Zanzibar from 2005 - 2020.

1.8 Justification of Research

The result of research findings are aimed to examine effects of tourism sector development to economic growth of Zanzibar specifically at Unguja Island. The study will help the country to understand the tourism sector contribution for general economy of Zanzibar. Also to inform planners and policy maker on the need to adjust tourism sector policy, also law and regulation should benefit the development of all Zanzibar's people through Gross National Product (GNP).

1.9 Limitation of Research

The thesis was notify some difficult on data finding stage as most of it not accumulated in one area, this will expected during data collection and the study

running out of time frame, furthermore higher inflation on fuel price was increasing transport cost.

CHAPTER TWO

LITERATURE REVIEW

2.1 Chapter Outline

The chapter review difference literature and previous studies concerning with tourism concept and theories related to study, furthermore the chapter start with definitions of main terms, describe theoretical and empirical literature survey and finally presents conceptual frame work and research gap.

2.2 Explanation of Significant Terms

2.2.1 Tourism Sector

This is a cultural, social and economic process which involves the movement of human to places or countries outside their usual shelter for business or personal and professional objective (UNWTO, 2018).

2.2.2 Economic Growth

These are processes by which a countries wealth rise over time (John Maynard Keynes), and some economist prefer as the value of all services and final goods generated annually in a country (Barringer, Jones, & Neubaum, 2005).

2.2.3 Tourism and Development

Tourism describes a main development sector in the today new global economy and has fundamental contribution in the world development and considered as an effective operator of development in destination area which facilitate economic growth (WTO, 2017). However, in many countries tourism relate with development in the aspect of benefits afforded by government expenditure and gain from foreign

exchange, environment enhancement, development of infrastructure and employment economical linkage.

2.2.4 Foreign Exchange Rate

This is the rate of exchange the currency value of one country to the equivalent value of currency in other nations. It is also represented as the exchange of value of one country's currency in terms of another country currency. The exchange rate changes when either the values of one among two component country currencies change. A currency will become more valuable when market demand for it being greater than the available supply. It will become less valuable when market demand is less than the value of its available supply. Hence, exchange rate fluctuation is the rise and fall of the needed currency in the market (Tokunbo and Lloyd, 2009), Ibenta (2012).

2.2.5 Government Expenditure

These are total spending of government in an economy, government expenditure contain of two actors, government current expenditure and government capital expenditure: Current government expenditure are spending of government on their daily operations activities, for example on the running cost of a hospital. Current government expenditure does not change significantly. Capital government expenditure are spending of government on infrastructure projects such as road, airport and National Broadband Network (NBN). Capital government expenditure indicates to change depending on the business cycle phase.

2.3 Theoretical Review

2.3.1 Tourism Led Growth Hypothesis

The tourism-led growth hypothesis (TLGH) presumed by Cantavella-Jorda and

Balague, (2002), assumed that increase of international tourism workout exerts economic growth, hence giving empirical and theoretical link between economic growth and inbound tourism. Theoretically, the export-led growth hypothesis (ELGH) was derive TLGH which states that economic growth can be provided not only by rise the value of capital and labor within the work place, but also by increasing exports (Pulina & Brida, Cortés-Jiménez, 2016).

2.3.2 Tourism Development and Economic Development of Zanzibar

Tourism sector rise the income of Zanzibar by generates thousands of jobs, improve country infrastructures, and now days become an important source of revenue in Zanzibar's economy and highest source of foreign exchange rate (2017, ZTC). In 2018, the industry generates an expected 82% of the islands' growth domestic product (GDP) and 28% of its foreign exchange gaining (Zanzibar Government budget, 2018).

2.3.3 Endogenous Growth Theory

The exogenous growth theory, generally mentioned as the neoclassical growth theory founded by Solow (1956). The theory gives out how a steady economic growth rate will be practiced with the three proper amounts of driving forces: capital, labor, technowlodge. Solow (1956) indicated the rates of population growth and saving, exogenously taken by assuming a neoclassical standard production function with declining returns to capital and determines the level of steady-state of income per capita.

The endogenous growth theory emerged due to lack neoclassical theory response around the reason in different rates of economic growth between countries which

have the same technological level. The theory was advanced by Romer (1990) and later supported by Grossman & Helpman (1991), Stokey (1991), Grandy (1999) and Lucas Jr. (2000). According to Romer (1990), growth depends on investment in research and development. Romer (1990) government action will improve the resources allocation efficiency through human capital investment and private investment encouragement in high-tech industries.

The Grandy (1999) in his side argue the endogenous growth theory assumes that, continuous growth determined by the production process not by outside factors, also Lucas Jr. (2000) assumes growth depends on human capital investment and savings. While early neoclassical models expected total factors of productivity growth as exogenously, the new endogenous growth models ascribed this component of growth to the "learning by doing" effect happening between human capital and physical, and results rising returns to scale in production technology (Lucas Jr, 2000). The implication of endogenous growth model is the policies which hold capital formation, competition, openness, innovation and change will encourage growth (Were & Onyango, 2015). The endogenous economists believe that developments in productivity bring advancement in total productivity and production linked to a faster pace of invention, innovation, and extra human capital investment.

The Endogenous growth theory, maintained the non-rivalry assumption because technology depend more factors than labor and capital and indefinitely used by others, at zero marginal cost (Howitt Aghion and Howitt, 19 Romer, 1987, 1990). But it was better to acquire next logical step and better understand the public goods and technowlodge characterization, and think as a partially non rival excludable

goods. Therefore the new wave rearranged technology not just as public goods but as goods that is subject to a certain private control level. By making it a partially excludable non rival goods and giving some degree of appropriate or excludability, it was probable ensure the incentives matter for its production and use. The more perfect competition way was necessary and yielded high methodological payoffs. While neoclassical models of growth took factor accumulation and technowlodge as exogenous, also endogenous growth models describe why technology over time grow through new ideas and outline the microeconomic foundations for models of the technological frontline.

The theory not explains economic growth in term of external factors only but it drive forward to the internal factors which enact inside the working area. The theory improves knowledge, innovation and human capital which lead to improve productivity and positive offering the economic growth. The endogenous growth theory make importance role on technological advancements. Hence growth rate of economic output per people drive long-term economic growth, and depend on productive levels. Also, productivity depends on technological change progress, which lies on innovation and human capital and these factors obtained inside the internal of economy.

The theory will show the relationship between effects of strengthening tourism sector on aspect of government expenditure (tax), gain on exchange rate and airport fees on international tourism arrival in influence economic growth. However, development of tourism sector depend more on internal environment of the country such as infrastructure, education and training, peace and security and technology

(Dean 1984, Barro and Lee 2015).

2.3.4 Strength of Endogenous Growth Theory

i. Endogenous theory employ informal modeling on describe output by analyzing dependent factors based on variety of variables. For instance, in a model of supply and demand, the price of a goods becoming an endogenous variables because the producer (supplier) has ability to change the price in respect of consumer demand.
ii. Also the theory makes full utilization of local resources on uses of infrastructure and efficiency stimulates national revenue in the country.
iii. The theory recognizes the human talent and innovation on promoting country development through differences way of entrepreneur.
iv. The theory emphasizes the country on making good environment in social economic variables like training and education for sustainable development in a country.

2.3.5 Limitations of the Theory

i. The theory lack of empirical proof and not considered as a proven model on analyze economy of a country
ii. Also, the theory uses unproved assumptions; which often seem as vague and inaccurate for real world applications.
iii. It regards human capital and physical factors as two different factors: one is internal, and the other is external. However, there is some critics which believe that two forces are the same.

2.3.6 Assumptions in the Endogenous Growth Theory

i. Economists believe the theory emphasize the necessity of government on provide subsidies and incentives for businesses oriented on private sector. Also it facilitate investment in businesses development and research for new innovation
ii. It increase productivity by improve the quality of labor on rise return of scale by investing in training program through human capital and education.
iii. The government should constitute policy which simplify entrepreneurs on creates new business and new employment opportunity
iv. The theory emphasize Investments by improve infrastructure and manufacturing phenomena in order to acquire innovation and production.
v. It recognize property rights, such as patents and copyrights, for enhance expansion of business operation and incentives.

2.4 Empirical Studies

2.4.1 Studies in Recent Word

In order to exhibit the effects of tourism sector on economic growth on study, the research revealed various examples. All the study confirmed that there was a positive effect on economic growth. Narayan (2004) targeted to explain the long run 10% growth impact between tourist expenditure on country economy. He found that, the tourism growth will increase by GDP 0.5% in Fiji´s economy which analyzed by using general computable equilibrium model. Furthermore, he indicated that real national welfare will rise by 0.67% GDP and real consumption will face growth of 0.72% GDP. The effects was appreciated the exchange rate because of higher rise domestic price level and declined of traditional exports wages.

Finally, he decided that in Fiji´s case, the rise in non-traditional exports and tourism reimburse the drop in non-traditional exports produced by rise of tourism. Li et al. (2013) considered on the short run and long run relationship between selected macroeconomics variables, and tourism and economic growth. They confirmed in Malaysia whether tourism is important factor in economic growth in period of 1974-2010. Also, (Abdullah & Chuan Li, Mahmood, 2013) concluded that in the long run variables were significant and related to economic growth. Also, disclosed that only the government expenditure in tourism is positively interrelated with economic growth.

Furthermore, in the study of Jin (2011) on the economic impact of tourism and economic growth in Honk Kong. He found that tourism sector boost economic growth, but he was not proof a long-time effect. Furthermore, the studied argue that tourism sector development has a significant effect on china urban economic growth in (Ma, et al. (2015) also the effect does not decline the city's economic gap. (Ma, Hong & Zhang, 2015) found that tourism growth created important spill overs, but there were minor direct effects on local economies.

Also Pratt (2015) examined the economic impact of tourism sector in Small Developing Islands States, and found tourism implies economic growth and also was used different models (linkage analysis, CGE and input output analysis) to compute the sectoral impact macroeconomic. As a result the study found that tourism produced higher income that stays in significant country. Also (Pratt, 2015) proposes that maximizing economic of scale could maximize the profits from tourism. However, Burbarry (2004) identified in his developing countries work, as tourism

seen more survivor for those countries. His study focused in Mauritius and found that tourism has promoted export services to the country and has significant positive effect on country´s economic development.

In study of Martin, et al., Eugenio, (2004) explore the positive relationship between tourism industry and economic growth for countries of Latin America in period of 1985 - 1998, the empirical data show that development of tourism sector can generate the economic growth of medium and low-income countries, also, in study of skerrit and Huybers (2005) investigate the effect of International Tourism sector in 37 developing countries on generate growth domestic product (GDP), the results prove that tourism has economic growth effects in all countries.

Waliullah and khan Khalil, (2007) in Pakistan was also found the relationship between growth domestic product (GDP) and tourism income. The study show the significant correlation between tourism sector and economic growth and finalize that economic improvement is vital important tool on increase country tourism sector, also Kweka (2004) conducted a research on contributions of tourism for the economic growth of Tanzania. Results shown that tourism development had a big impact on the country economy as increase the real country growth domestic product (GDP).

2.4.2 Related Study in Su – Saharan Countries in Africa

In Africa, the study conducted by Fayissa, et al., (2007) using the data of 42 African countries, the results describe that receipts from tourism sectors contribute on

economic growth in Sub-Saharan countries also in the study of Cerovic, et al., (2015) determines that, even though the number of total tourist arrivals is increasing in many African countries, tourism makes a mode rest influence to economic growth this analysis involves only three countries which are Kenya, Egypt and Angola.

2.4.2 Related Study in Zanzibar

On study of Tourism Development on Economic Development (Hafidh & Zulekha, 2021) the thesis lie on quantitative technique and secondary data collected from several sources. Most of the data were obtained from the office of chief government statistician (OCGS). The study concludes as training in tours Guider is the best way of attracting tourist from abroad and increases the country economy.

Also in study of the participatory natural resources management and benefit sharing in Zanzibar (Makame, 2007), has found that the tourism was mostly important sector to the local community in Zanzibar, as in the Unguja northern region there was a lot of peoples from different region of East Africa employed in the hotel industry and also the business partners from Tanganyika have found a market for their traditional goods and services, like paintings or wood carvings. However, some of the peoples came in the area apart of these purposes.

Haji (2011), on his study of challenges and prospects facing entrepreneurs women involved in tourism sectors in eradicating poverty, he measured the role of the women towards the alleviation of poverty at the local level, he exposed the potential role of tourism on reduce women poverty and argued that those 18 examined women had direct benefit from the tourism sector, meanwhile of several women

opportunities created from other sectors. In this respect, tourism industry would be more valuable for men and women entrepreneurs, on organize and earn maximum economic benefits. Indeed, special efforts are needed to increase local entrepreneur's competition skills against foreigners.

In study of Shitundu and Luvanga (2003), concerned with the benefits of tourism industry in poverty alleviation in Tanzania, the study argue that, tourism activities had positive or negative affect on poverty alleviation. The positive contributions may be offered by income generation, employment creation and contributions to community benefits, increased ownership asset and contributions to the basic needs. Although of direct benefits obtained from tourism industry, the sector persist some negative impacts like environmental problems, immoral behavior, cultural pollution, socio economic activities and conflicts. The impact of tourism industry on country economy cans directly resulting from the received household's income through either direct or indirect employment.

On the research did by Kweka (2004), on Tourism and Economy of Tanzania. His study hired economic analysis on determined the tourism sector potential contributions for the economic growth in Tanzania, and his work found that; tourism expansion had a potential impact on increase economic country real GDP, exports and welfare. In other side, the expansion of tourism industry increase tax collection and revenue which enhance improvement of infrastructure and country social welfare.

Table 2.1: Previous Studies on the Effects of Tourism Sector Development on Economic Growth

Author and Year	Study Objectives	Study Location	Sampling Method	Analytical Method	Findings
Martin et al.Eugenio, (2004	Found the relation between economic growth and tourism industry from 1985 - 1998	Latin America.	Time series	Qualitative statistic	Development of tourism sector generate the economic growth in low and medium-income countries
Narayan (2004)	Examined the long run impact of tourist expenditure on economy	Australia	Time series	Quantitative statistic	Fiji´s economy, the tourism growth will increase by GDP 0.5% in Fiji´s economy
Li et al. (2013)	Analyzed the long run and short run relationship between tourism and macroeconomics variables	Malaysia	Time series	Quantitative statistic	In the long run the variables has been significant and related to economic growth.
Jin (2011)	Studied the economic impact of tourism on the economic growth	Hong Kong	Time series	Quantitative statistic	Tourism boost economic growth,
Pratt (2015)	investigated the economic impact of tourism in Small Island developing States		Random sampling	Quantitative statistic	Tourism implies economic growth
Waliullah and khan Khalil, (2007)	Found out the relations between tourism income and growth domestic product (GDP)	Pakistan	Random sampling	Quantitative statistic	Economic improvement is vital important for the rise of tourism sector in the country
Kweka (2004)	Examined contributions of tourism for the economic growth of Tanzania.	Tanzania	Random sampling	Quantitative statistic	Development of tourism had a big impact on the economy
Makame (2007)	The participatory natural resources management and benefit sharing in Zanzibar	Zanzibar	Random sampling	Quantitative statistic	tourism sector was mostly important to the local community in Zanzibar,
Haji (2011)	The prospects and challenges facing women entrepreneurs involved in tourism industry in overcoming poverty	Zanzibar	Random sampling	Quantitative statistic	Revealed that, tourism had the potential to reduce women poverty
Luvanga and Shitundu (2003)	The role of tourism in poverty alleviation in Tanzania,	Tanzania	Random sampling	Quantitative statistic	Tourism activities could affect poverty alleviation positively or negatively.

2.5 Research Gap

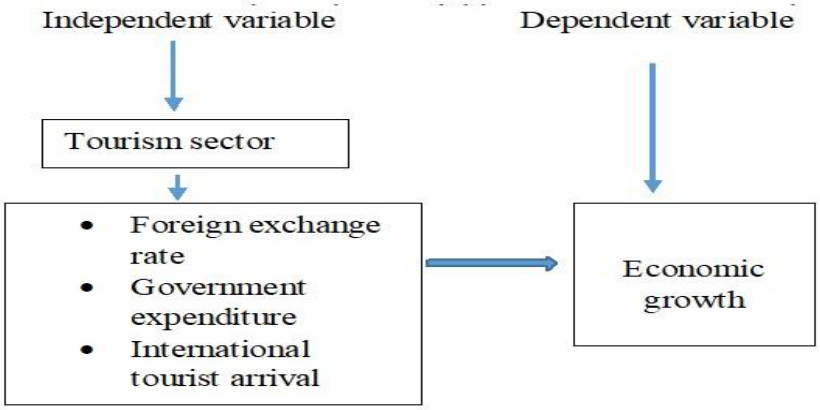
In spite of documentation on rapid expand of tourism sector in Zanzibar as confirmed by increase number of brilliant hotels and occupied visitors booking rooms (Zanzibar Commission of tourism Report, December 2021), there is not clear verified document which show the annually boom in tourism sector in recent years was directly improve economic growth of Zanzibar, as most of year Zanzibar facing high challenges of budget deficit. However, most of the studies relate to economic growth with tourism sector was conducted in developed world, while many conducted studies in African countries comparing tourism sector with other sectors like commercial industries and agriculture. However this study aim to fulfill this information gap on examines impact of tourism sector development in economic growth of Zanzibar.

2.6 Conceptual Framework

The dissertation conceptual framework based on Endogenous Growth Theory and Tourism led growth hypothesis. The models are large numerical which combine economic theory with real economic data in order to derive computationally the impacts of policies or shocks in the economy, also the dissertation employs real growth domestic product (GDP) as a substitute for economic growth. This study considers tourism industry as a complex economic entity that comprises actors with different interests but organized to have common concern in order to pursue their diverse interests under external and internal forces.

Tourism industries are the only business which foreigner citizen travel or follow the product in other countries which increase economy and social distribution aspect in

local area. Increase economy distribution happen due to employment creation as well as marketing of local products for the local citizen. Infrastructure which facilitate smoothly conducted a tourism activities, jobs and other services delivered to tourist create a greater opportunity for the tourism industry to contribute significant to the national economy and reduction of community poverty



Sources: Researcher idea from literature review

Figure 2.1: Conceptual Framework

2.7 Explanations and Dimension of Variables

2.7.1 Dependent Variables

Economic growth described as rise of country Growth Domestic Products (GDP) over interval of time. The higher growth domestic product (GDP) of the country show rising of production value and rise higher subsequently spending and more pay on the country residence. A similar study has been conducted on analyzing the impact of tourism performance and economic growth in revenue (Barguelil, *et al,* 2018).

2.7.2 Independent Variables

2.7.2.1 Foreign Exchange Rate

An exchange rate refers the devaluation on exchange of one country currency on

trade in another country currency on the market. In Zanzibar Exchange rate influence economic growth by simplify exchange of foreign and local currency in facilitate domestic and international trade also the difference of exchange will create a gain and benefits to the banks and beure de change which contribute in economic growth of Zanzibar. However, the analyzing will examine the benefits obtained from exchange of dollar, pound and euro which are most three common currencies on influence exchange in economic growth of Zanzibar.

2.7.2.2 Government Expenditure

This refers to money used by the public sector on the acquisition of essential goods and services such as healthcare, education, social protection, and defense. Therefore, in this conceptual the total data of expenditure in tourism sector will be analyzing and the annually expenditure from commission of tourism and Ministry of tourism in Zanzibar will be evaluated for period of fifteen years.

2.7.2.3. International Tourist Arrival

The travelling of people from the residence country or place to another area for a period not exceed 12 months on the purpose of business or leisure and enforce to stay at least one night in visited area or country (WTO, 2017). However, Zanzibar economy in large extent depend in tourism sector and each year receive a lot of visitors for leisure and business, on this, the conceptual will analyzing annually number of arrival and its impact in Zanzibar economy.

CHAPTER THREE

METHODOLOGY

3.1 Overview

This chapter explains the strategy of enquiry, which analyzing and identifies assumptions for data collection and research design (Myers, 2009), also the research methods of this thesis will be discussed and the contents of the research will be talked. This chapter presents research paradigm, area of the study, description of variables, sampling procedures and design, sample size of the study, reliability of the data and measurement procedure and analysis.

3.1 Research Design

A time series research design was used in this study and quantitative technique has taken to acquire different strategies, knowledge and data collection methods (Creswell, 2003). Time series data is the type of data which are repeated in two or more time in series measures. Moreover, this design considered to be appropriate as it allows series of years to be studied and assess the changes happened (Halady, 2004). The time series research design has been selected due to origin of the data in the study which composed a various cross sectional at different years in order to obtain the time trend to meet the objective needs.

3.2 Research Population Sampling

Research population sampling defined as system of people or things that undertaken by researcher on obtain information and draft reasonable conclusion (Fraenkel (2000). The study was carried out at Unguja Island of Zanzibar where large tourism activities have been conducted.

3.3 Sampling Procedure

The study was employed secondary quantitative research design on select the data from secondary government sources and written library data. Also the design was employed in the study to eliminate irrelevant influences and attain accurate data. Notwithstanding, the design allow representative of whole population, minimizes the impact of biases selection and increases validity of the study.

3.5 Data Source

The study was used secondary data on acquired and review various related study and government published in period of 2005 -20, the data will finding from Office of chief government statistician (OCGS), Zanzibar tourism Commission (ZTC), Zanzibar investment promotion authority (ZIPA), Migration of Zanzibar and Bank of Tanzania (BOT).

3.6 Secondary Data Collection Instrument

The secondary quantitative method was used in analyzing the data on the study; secondary data is the previously published and documented data by other sources apart by the one who carrying the current study. Actually the data were already collected and made available for future users in foreign and local sources. Local data normally published from government organization, government institutions, and multilateral organizations like World Bank and IMF; also it can be acquired through perusal recorded or internet. Secondary data help to obtain higher quality set of data in few time and low period. The study attain annual time series data from 2005 - 2020 and obtain the data related to government expenditure, international tourists visited Zanzibar Island and foreign exchange rates collected for fifteen years.

3.7 Data Analysis Techniques

On performing statistical evaluation, the study was employed STATA package on analyze time series data, the secondary data from annual report in an authorized entity of Government of Zanzibar was examined and calculated in terms of percentage and frequencies and finally the data was analyzed quantitatively. In order to acquire significant report from a secondary source the data required to be coded, cleaned and should done appropriate analyzes (Kothari 2008). In this study the obtained data ensured are well organized and sorted, and provided relevant meaningful reports.

3.8 Estimation Methods

3.8.1 Estimation Diagnostic Tests

The rule specifies and evaluates the accuracy of observations in at least three inspections in a given assessment. Also the rule implies if three examinations arise from combination of separate system, or from a series of plan in which individuals are assessed in the same test and maximal number of times and stop if it occur a positive result or negative result.

3.8.2 Normality Test

A test used to analyze whether sample records was given out from distribution of normally population or within same tolerance. A series of statistical work out, like a one-way and two-way ANOVA together with the student's t-test are required to be in normally distributed sample population. If the hypothesis of normality is not effective, the outcomes of the assessments will be unreliable. Skewness measures the level to which a distribution of variables is symmetrical. If the reactions in

distribution of variables stretched towards the left or right tail in distribution, then the distribution is stated as skewed. Kurtosis measure the too peaked degree of distribution (more narrow distribution with higher reaction in the center). (Hair et al., 2017, p. 61)

Kurtosis:

Kurtosis is explained as the fraction of the fourth instant and squared variance or the second instant squared of the distribution. Mathematically, represented as,

$$\mathbf{Kurtosis} = \mathbf{n} * \sum_{\mathbf{i}}^{\mathbf{n}} \frac{(\mathbf{Y} - \acute{Y})^4}{((\mathbf{Y} - \acute{Y})^2)^2}$$

Where

Y: Distribution variables

Ȳ: Distribution mean

n: Number of distribution Variables

Skewness

It describe distribution asymmetry which explain the third movement of the central distribution, as expressed in the formula.

$$\mathbf{Skewnes} = \frac{\sum_{\mathbf{i}}^{\mathbf{N}}(\mathbf{Yi} - \acute{Y})^3}{(\mathbf{N} - \mathbf{1})\mathbf{S}^3}$$

Where,

S: standard deviation

Ý: mean of observed distribution

N: Is the number of observation of sample

Y: Variable of distribution

3.8.3 Heteroscedasticity

Heteroscedasticity are linear regression model test that assumes the error terms are in normally distributed. It checks the possibility of error terms variance from a regression model as it depend on the values of the independent variables.

3.8.4 Multicollinearity

Multicollinearity test conducted to access the possibility of collinearity situation inside of independent variables of the data. Multicollinearity is defined as situation of higher inter-associations or inter-correlations between independent variables. It is disturbance type which made statistical inference and if present the records cannot be trustworthy. The variable inflation factor (VIF) used to access the availability of multicollinearity in the side of independent variables. The VIF determine the extent of correlation of each independent variables from other identified predictors in the model, its values should running below 10 for each predictors, then the multicollinearity problems of large VIF of regression coefficient of standard errors result of the following model.

$$VIF_k = \frac{1}{1 - R^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots (i)$$

Where $_{R}^{2}$ is the multiple coefficients of determinations when Fk is independent regression and the k-1 residual independent variables

3.8.5 Karl Pearson's Correlation of Coefficient

It is identified as Pearson's coefficient correlation and symbolized by the Karl Pearson's measure statistical link between the quantitative data. The ideals of Karl Pearson's are always running between +1 and -1. A value of R −1 shows that the two

variables are perfectly linked in a negative linear way. A value of R +1 show that two variables are perfectly linked in a positive linear way, and 0 correlated coefficient doesn't show any linear association between two variables. The path of the correlation is directed by the sign R.

$$R = \frac{Cov\,(X,Y)}{\sqrt{[Var\,(X)Var\,(Y)]}} \frac{= \sum(X-\bar{X})(Y-\bar{Y})}{\sqrt{\sum(X-\bar{X})^2}\sqrt{\sum(Y-\bar{Y})^2}}$$

3.8.6 Stationarity (Unit Root) Test

This test examine whether a variable data is non-stationary and holds a unit root, a stationarity in time series occur if distribution shape does not effected by change in time. Mostly, null hypotheses examined the existence of a unit root or the data not stationary and the alternative hypotheses examine stationarity effects of the data. In generally, the unit root method assume that the tested time series can be written as,

$$y = D_t + z_t + \varepsilon_t \ \ldots\ldots\ldots\ldots\ldots (i)$$

Where,

D_t The component deterministic

z_t The stochastic component

ε_t The process stationary error

The target of the test was to access whether the component of stochastic stationary was stationarity or unit root.

The study was used an augmented Dickey–Fuller test (ADF) on identify the null hypotheses of a present unit root in sample time series. The augmented Dickey–Fuller (ADF) test used a negative number. The more negative the higher rejections of the hypothesis and determine the presence of a unit root at some confidence level.

The analyzing method for the ADF test is the same as applied in the model

$$\Delta y_t = \alpha + \beta_t + \gamma y_{t-1} + \delta_t \Delta y_{t-1} + \ldots + \delta_{p-1} \Delta y_{t-p+1} + \varepsilon_t$$

Where as

α A study constant

β Is the time trend coefficient

p The autoregressive process lag order

The unit root test undertaken between null hypothesis and alternative hypothesis when the value of computed statistics can be correlated to the significant critical value of Dickey–Fuller test. On the asymmetrical test, we were considered the negative values of a statistical test. If the intended statistical test is more negative than the critical value, it indicates no existing unit root and null hypothesis is rejected (Bierens, 2001).

The test suggests that the null hypothesis will rejected, if P Value in the test is smaller than resulted significant value of 0.05 of the study. Finally, null hypothesis defined that there is no correlation between examined variables in the study (no variable affect each other's). The basic alternative was that, the time series was trend-stationary or stationarity (Bierens, 2001).

3.8.7 Autocorrelation Test

When two set of error term in explanatory variables denoted zero then in such condition there will be no serial correlation or autocorrelation. The darbin-watson (dw) used on conduct statistic test for order connection and with the first-order process.

$$y_t = \alpha + \alpha X_t + \varepsilon_t \ \ldots\ldots$$

$$But\ \varepsilon_t = p\ \varepsilon_{t-1} + u_t$$

3.8.8 Co integration Test

The test applied to identify the existence of any long-term correlation between the variables. The economic clarification of co integration is that if two series or more are interrelated in the long run and form relationship equilibrium spanning, however the series themselves may enclose stochastic trends (non-stationary) it will move closely together and the variance between them will be stable (stationary) (Enders, 1995).

However, co integrating tests applied to scan the presence of long run equilibrium relationships between variables. Co integration has received a formal treatment by Engle and Granger (1987) by provide formal treatment and examine, if two or more time series variables, Y_t and X_t are $I(1)$, then $Y_t - \beta X_t$ is an $I(1)$ process for any number of β (Greene, 2003). For some $\beta \neq 0$, $Y_t - \beta X_t$ is a $I(0)$ process then Y and X are co integrated and β is called the co integrated parameter.

The equation of co integration can be stated as follows

$$\ln RGDP = \beta_0 + + \beta_1 \ln TAC + \beta_2 \ln EC + \varepsilon_t$$

If the residual ε_t, which are exposed to unit root investigation are seen to be $I(0)$, then the said variables notified as co integrated and the beyond equation specifies a long run relationship between considered variables. Also Time series econometrics involves an investigation of the short run relationship and this is taken by Error correction test.

3.8.9 Error Correction Model

An error correction model (ECM) provided by a group of multiple time series models are normally used for data contain long-run variables with common stochastic trend, which known as co integration. The Granger causality test is a statistical phenomenon of evaluating the suitable of one time series in forecasting another, first suggestion. For instance when time series X of Granger bases time series Y, the patterns in X are almost repetitive in Y once some time lag. Thus, previous values of X used for the expectation of upcoming values of Y.

The error correction mechanism (ECM) adjusts the imbalance and the relationship among the co integrating variables and explained as follows:

$$\ln RGDP = \beta_0 + +\beta_1 \ln TAC + \beta_2 \ln EC + \varepsilon_t$$

3.8.10 Granger Causality Tests

The causal relationships structures among variables were examined through the Granger causality model. The Granger causality test is a statistical phenomenon for evaluating the usefulness of forecasting one time series in another. The hypothesis would be rejected, if the value of probability is less than any α level. Suppose x and y be stationary time series. To check the null hypothesis that does not consist Granger causality, first discovers the appropriate lagged values of y contained in a univariate y auto regression formula below,

$$Y_t = \alpha_0 + +a_1 y_{t-1} + a_2 y_{t-2} + a_m y_{t-m} + b_p x_{t-p} + \ldots\ldots b_q x_{t-q} + \varepsilon_t$$

The null hypothesis that identify x does not consist Granger causality y is recognized only if no lagged values of x are taken in the regression.

3.9 Reliability and Validity of Instruments

3.9.1 Data Validity

Validity discussed as the degree to which a test analyses the actually requirement to be measured (Kothari (2004)). On the other hand, Kothari continues to argue that validity is the point notified by measuring instrument which reflect on really differences between those presence tested. In this study, the instruments which were used for collection data enclosed the selected sample of the related population and provide expected data. Furthermore, the dissertation ensured proper testing for validity of methodology and objectives respond to objectives by gathering reliable data and accurate.

3.9.2 Reliability

Reliability used to offer guarantee, precision and accuracy of measured procedure, (Kothari, 2004) describes that a quantifying tool will be trustful if it offers consistent results. To assure reliability of these tools, published data from reputable sources were used to obtain relevance information. Also, reliability was assured by using proper methodology, analysis tools and proper procedure.

CHAPTER FOUR

STUDY FINDINGS, ANALYSIS AND DISCUSSIONS

4.1 Introduction

The prior section of the dissertation analyzed the content, descriptive features and theoretical of the study. The concentration of the existing section was to evaluate the field result and analyze the outcomes as required by study objective. The collected quantitative records was coded and analyzed. The quantitative data was analyzed by STATA. Also the quantitative records were conversed in regard of the study objective. The field data evaluated and the discussed results have been presented in the attached tables of Foreign exchange rates, Government expenditure and International tourist arrivals in relation on examine effects of tourism sector development on economic growth in Zanzibar period of 2005 -2020.

4.2 Data Analysis and Findings Presentation

4.2.1 Descriptive Statistics

The table: 4.1 provide explanation of time series descriptive statistics variables used in the study from 2005 -2020. This section evaluates the empirical analysis result. It start by display study descriptive statistics of the employed indicators. This brings good awareness of the data patterns and nature of the diagnostics and estimations given out. Table: 4.1 below present standard deviation and mean of the variables.

Table 4.1: Standard Deviation and Mean

Variable	Obs	Mean	Std. Dev.	Min	Max
Internatio~s	16	249954.3	141277.6	134401	538264
Foreignexc~e	16	1663.438	440.5888	1102	2309
Government~e	16	6.52e+09	2.63e+09	2.37e+09	1.10e+10

Sources: Researcher computation, (2023).

The Table 4.1 show that average mean of international tourist arrival is 249954.3 which represent annually average number of tourists visit in Zanzibar in period of 2005-2020, at the same time show the Foreign exchange rate is 1663.438 which represent the annually rate of exchange dollar per shillings in period of fifteen years and finally the annually average mean of Government expenditure is 6,520,000,000 which represent the annually average expenditure of Zanzibar government in tourism sector for 2005-2020. However, standard deviation for international tourist arrivals is 141277.6, foreign exchange rate is 440.5888 and government expenditure is 2,630,000,000, this data show there is some deviation from the mean which represent annually change of economy in Zanzibar.

4.2.2 Normality Test

Table 4.2: Skewness and Kurtosis

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
Internatio~s	16	0.0442	0.8523	4.30	0.1162
Foreignexc~e	16	0.4440	0.0527	4.49	0.1059
Government~e	16	0.9708	0.2602	1.42	0.4921

Sources: Researcher computation, (2023)

The skewness value must be zero for normal distributed data (Even though it is unlike quite for the real world) or close to Zero, The analyzed data result on Table: 4:2 displays that the skewness variables is close to zero i.e. International tourist arrival is 0.0442, Foreign exchange rate is 0.4440 and Government expenditure is 0.9708 the moderate data skewed were close to zero. Consequently the data sample were normally distributed.

Kurtosis is the process of identify whether the data are light-tailed (k<3) or heavy-tailed (k>3) compare to a normal data distribution. The sample results shown in Table: 4:2 indicate that variables were light tailed relative to normal distribution.

This table show statistical test for the normality of a variables, based on sample data and interpreted by probability on each examined variables.

Table 4.3: Shapiro-Francia W' Test for Normal Data

Shapiro-Francia	W' test	for normal	data		
Variable	Obs	W'	V'	z	Prob>z
Internatio~s	16	0.87401	2.424	2.632	0.04424
Foreignexc~e	16	0.949633	1.340	1.505	0.66190
Government~e	16	0.98162	0.415	-1.557	0.94029
Mean	**16**	**0.9350**	**2.0895**	**0.86**	**0.54881**

Sources: Researcher computation, (2023)

On this test the study null hypothesis show that, the variables is normal distributed. If the test p value is higher than significance level of 0.05, otherwise we can reject the study null hypotheses. Since, the data show the average p-value of null hypothesis is 0.54881 greater than significance level we are accept the study null hypothesis and finalize the data in the study is normal distributed.

4.2.3 Multicollinearity

The Variance inflation factor (VIF) used to measure and notify the value of collinearity in the study model of a multiple regression. If result of VIF calculated give out 1 value mean that the variables of study are not correlated, when VIF vary between 1 and 5 notify that variables of the study are reasonable correlated and when VIF vary between 5 and 10 mean that the study variables are highly correlated, table 4:4 represent the study calculated VIF.

Table 4.4: Variance Inflation Factor

Variable	VIF	1/VIF
Government~e	4.8	0.2083
Foreignexc~e	4.5	0.2222
Internatio~s	3.91	0.2557
Mean VIF	4.40	

Sources: Researcher computation, (2023)

In minimizing the problem of multicollinearity between variables the study remove the fast calculated data of exchange rate, as a result obtained Mean VIF of 4.40 which show variables are moderate correlated and the data concluded to be accepted for the study.

4.2.4 Karl Pearson's Coefficient of Correlation

Due to Karl person correlation coefficient, the data should falls in the range value of +1 to -1. If the value lie in -1 implies higher negative correlation while if the value range in +1 show higher positive correlation.

Table 4.5: Karl Pearson's Coefficient of Correlation

	International tourist arrivals	Foreign exchange rate	Government expenditure
International tourist arrivals	1.0000		
Foreign exchange rate	0.8818	1.0000	
Government expenditure	0.7770	0.9513	1.0000

Sources: Researcher computation, (2023).

The Table 4.5 indicates that, the result flow in good range of 0.7770 to 0.9513 which can be accepted for analyzing as not lie in highly correlated.

4.2.5 Heteroscedacity

The Breusch-Pagan test is used to identify the presence of heteroscedasticity in the study regression model.

The test uses the following null and alternative hypotheses:

Null Hypothesis (H0): Presence of homoscedasticity in the study (residuals distributed with the same variance)

Alternative Hypothesis (HA): Presence of heteroscedasticity in the study (residuals not distributed with the same variance)

If the tested p value is smaller than 0.05 significance level, the null hypothesis will be rejected and conclude the presence of heteroscedasticity in the regression model. Otherwise, the null hypothesis will not rejected and assumed the presence of homoscedasticity.

Table 4.6: Breusch-Pagan for heteroscedasticity

H_0	Constant variances
Variable	International tourist arrivals , Foreign exchange rate and Government expenditure
F (3 , 12)	0 .81
Prob > F	0 .5108

Source: Researcher computation, 2023

Since, in Table 4.6 the test P-value is 0.5108 greater than 0.05 significance level ($\alpha = 0.05$), we fail to refuse the null hypothesis. Thus, we assumed the presence of homoscedasticity in model.

4.2.6 Stationarity /Unit Root Test

Augmented Dicky fuller test used on testing stationarity in probability of 5% and assuming that null hypothesis is correct on assumption of,

If test statistic < Critical value = Rejects the null hypothesis.

If test statistic > Critical value = fail to reject the null hypothesis

Table 4.7: Dicky Fuller Test

By using trend lags (0)

	TEST STATISTICAL	1% VALUE OF CRITICAL	5% VALUE OF CRITICAL	10% VALUE OF CRITICAL
International tourist Z(t)	-1.682	-4.38	-3.6	-3.24
Foreign exchange rate Z(t)	-2.284	-4.38	-3.6	-3.24
Government expenditure Z(t)	-2.574	-4.38	-3.6	-3.24
MEAN Z(t)	**-2.18**	**-4.38**	**-3.6**	**-3.24**

Sources: Researcher computation, (2023)

Average p-value for Z (t) = 0.498

In table 4:7 the ADF result show that, the mean test statistical result is -2.18 which are smaller than mean critical value (5%) is -3.6, thus the data is not stationary.

4.2.7 Cointergration Test

Table 4.8: The Results for the Johansen Cointergration Test

Johansen tests for cointegration

Trend: constant — Number of obs = 14
Sample: 2007 - 2020 — Lags = 2

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	12	-553.91333	.	68.6274	29.68
1	17	-530.55322	0.96446	21.9072	15.41
2	20	-519.60225	0.79079	0.0053*	3.76
3	21	-519.59961	0.00038		

maximum rank	parms	LL	eigenvalue	max statistic	5% critical value
0	12	-553.91333	.	46.7202	20.97
1	17	-530.55322	0.96446	21.9019	14.07
2	20	-519.60225	0.79079	0.0053	3.76
3	21	-519.59961	0.00038		

Sources: Researcher computation, (2023)

Johansen test show the result of three variables of International tourist arrivals, Foreign exchange rate and Government expenditure on three maximum ranks as shown in table 4:8 and explained below,

4.2.7.1 Maximum Rank Zero Analysis

Starting from zero maximum rank, the alternative and the null hypotheses were as follows:

Null hypotheses: Presence of cointegration in model.

Alternative hypotheses: No cointegration in model.

The maximum rank zero, show that trace statistic (68.6274) is greater than critical values (29.68). Thus, the time series variables of International tourist arrivals, Foreign exchange rate and Government expenditure are cointegrated and refuse the null hypotheses. Likewise, for the value of max statistics 46.7202 is greater than critical value of 20.97, thus refusing the null hypothesis. Therefore, as explained maximum rank zero the variables of International tourist arrivals, Foreign exchange rate and Government expenditure are cointegrated.

4.2.7.2 Maximum Rank One Analysis

For maximum rank one, the null and alternative hypotheses are as follows:

Null hypotheses: Presence of cointegration in equation one (1).

Alternative hypothesis: No cointegration in equation one (1).

The maximum rank one, show that trace statistic (21.9072) greater than critical values (15.41). Thus, time series variables of International tourist arrivals, Foreign exchange rate and Government expenditure are cointegrated. Likewise, the value of

maximum statistics (21.19) is greater than a critical value of (14.07), thus refusing the null hypothesis. Then, as explained in the maximum rank one the variables of International tourist arrivals, Foreign exchange rate and Government expenditure are cointegrated.

4.2.7.3 Maximum Rank Two Analysis

At maximum rank two, the alternative and null hypotheses are as follows:

Null hypothesis: Presence of cointegration in equation two (2).

Alternative hypothesis: No cointegration in equation two (2).

The maximum rank two, show that trace statistic (0.0053) is greater than critical values (3.76). Thus time series variables of International tourist arrivals, foreign exchange rate and government expenditure were not cointergrated. Likewise, the value of maximum statistics (0.0053) is smaller than critical value of (3.76), thus accept the null hypothesis. Then, as explained the maximum rank two the variables of, International tourist arrivals, Foreign exchange rate and Government expenditure are cointegrated in two equations. Hence, the cointegration persist in three variables, the vector error correction model (VECM) would be suitable to take place in the study (Winarno. *et al*., 2021).

4.2.8 Vector Error-Correction Model (VECM)

The Vector Error Correction Model was used for results estimation in both short-run and long run effects. Regarded on output recognized at Johansen Cointegration Test, VECM outcome proposed that in the long run Foreign exchange rate, has positive impact on international tourist arrivals while Government expenditure has negative

impact. The model coefficients' were statistically significant at the level 1%. Since the p value was below 1 as seen in the result of Table 4:9

Table 4.9: Vector Error-Correction Model (VECM)

Johansen normalization restriction imposed

beta	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
_ce1						
Internationaltouristarrivals	1	.	.	.	.	.
Foreignexchangerate	-441.7843	23.19976	-19.04	0.000	-487.255	-396.3136
Governmentexpenditure	.0000394	4.31e-06	9.15	0.000	.000031	.0000478
_cons	522396.9	.	.	.	.	.

Sources: Researcher computation, (2023).

4.2.9 Regression Model

In the study regression analysis for this study, model summary and the result coefficient were observed. The ANOVA table shows how the sum of squares distributed according to source of variation.

Table 4.10: ANOVA Table and Model Fit Summery

Source	SS	df	MS
Model	338.453206	3	112.817735
Residual	1.5467938	12	.128899484
Total	340	15	22.6666667

Number of obs	16
F(3, 12)	875.24
Prob > F	0.0000
R-squared	0.9955
Adj R-squared	0.9943
Root MSE	.35903

Sources: Researcher computation, (2023)

4.2.9.1 ANOVA Table Workout

The study output show that, sum of squares (SS) display deviation of 340 in the side of dependent variable while 338.45 describe by the model and the remaining of 1.54 is unexplainable. Also the result shows that, residual and model degree of freedom (df) are 12 and 3 respectively while the total data is 15. And finally the output show

that, the model mean sum of squares (ms),residual and total result are 112.81, 0.128 and 22.66 respectively.

4.2.9.2 Model Fit Summery

The model summery represents the relation among independent variables and dependent variables in considering the value of root mean square error (RMSE), adjusted R square and R –square. All value show that the related variance of the dependent and independent variables on how well it fit in regression model. From the results in Table, R square explains the strength and relationship of international tourist arrivals, foreign exchange rates and government expenditure on development of economic growth in Zanzibar. From the result R-square equals to 0.9955, this show the dependent variables is described by the side of independent variables for 99 percent. For the situation of this dissertation the economic growth perceived in Zanzibar attributed by the independent variable measured in the regression model.

Therefore, Zanzibar will be able to experience the economic growth if international tourist arrivals, foreign exchange rates and government expenditure were taken into consideration. In order to sustain uniformity of our data variation in this dissertation adjusted R-square is more viable which is 0.9943 (99.43%), thus the variation of dependent variable is described by independent variables for 99.4%. Meaning that the variable designated describes the model about 99.43% leaving only 0.57% of other factors not included in the model.

4.2.9.3 Regression Coefficients

The table 4:11 represent parameters assessed by the model and their corresponding statistical significance.

Table 4.11: Regression Coefficients

y	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Internationalt~s	2.41e-06	1.54e-06	1.56	0.144	-9.44e-07	5.76e-06
Foreignexchang~e	.0004148	.0010067	0.41	0.688	-.0017786	.0026081
Governmentexpe~e	1.64e-09	1.26e-10	12.96	0.000	1.36e-09	1.91e-09
_cons	2000.523	.6982908	2864.89	0.000	1999.001	2002.044

Sources: Researcher computation, (2023)

4.2.9.4 Linear Regression

The linear regression model estimates the values of intercept and the coefficients of independent variables. The equation of the model can thus be presented as follows,

y = bo + international tourist (X1) + foreign exchange rate (X2) + government expenditure (X3)

y = 2000.523+ 2410000 X1 + 0.0004148 X2 + 1640000000 X3

The linear regression models perform partial derivative in thee coefficient of intercept and dependent variable. Then, it signify the variation of target variables for one unit increase in the side of independent variables holding other factors remain constant.

i. If all factors holding constant, the value of y will rise by 2410000 for increase one unit in X1.
ii. If all factors holding constant, the value of y will rise by 0.0004148 for increase one unit in X2.
iii. If holding all factors constant, the value of y will rise by about 1640000000 for increase one unit in X3.
iv. If holding all factors constant, the value of y is 2000.523 when each independent variable has a zero value.

4.2.10 Hypothesis Test and Results

4.2.10.1 International Tourist Arrival Hypothesis Result

International tourist arrivals has p – value of 0.144 greater than significance level of 0.05 then the null hypothesis is not rejected at 5% in confidence level 95% and show that international tourist arrivals effect economic growth and the model did not reach statistically significant.

4.2.10.2 Foreign Exchange Rate Hypothesis Result

Moreover foreign exchange rate has p – value of 0.688 greater than significance level of 0.05 then the null hypothesis is not rejected at 5% in confidence level 95% and the model is statistically insignificant.

4.2.10.3 Government Expenditure Hypothesis Result

On the other hands, the government expenditure result shows that, p –value is 0.000 smaller than significance level of 5% in confidence level of 95%, then, model reject the null hypothesis and conclude government expenditure has not statistically significant effects on economic growth and the model is statistical significant.

Table 4.12: Hypotheses Summery Result

Hypothesis statement	Outcomes	Conclusion	Relationship
H_1: Hypothesis (H_o): There is a no significant positive relationship between international tourist arrivals and economic **Table** growth	(ß = 2.41e-06, p = 0.144).	$H_{0:}$ Not Reject	positive
H_2: Hypothesis (H_o): There is no significant positive relationship between foreign exchange rate and economic growth.	ß = 0.000414, p = 0.688).	$H_{0:}$ Not Reject	positive
H_3: Hypothesis (H_o): There is no significant positive relationship between government expenditure economic growths.	(ß = 1.64e-09, p = 0.000).	$H_{0:}$ Reject	positive

Sources: Researcher computation (2023)

4.2.11 LM test for Autocorrelation of Breusch – Godfrey Result

Table 4:11 LM Test for Autocorrelation Godfrey Result

lag	Ch2	df	Probability > ch2
1	7.2475	9	0.61136
2	9.2235	9	0.41690
Average	8.2355	9	0.51413

Sources: Researcher computation, (2023).

The hypothesis in this case is:

Null hypothesis: No autocorrelation

Alternative hypothesis: Presence of autocorrelation.

Since from the above table 4:12 the average probability of ch2 (prob > ch2) is greater than 5% (0.05), the null hypotheses can be accepted. Which mean no presence of autocorrelation among residuals in the model.

4.2.12 Cronbach Alpha test for Reliability

Table 4.14 Cronbach alpha test for reliability result

Variance	0.0261415
No. of scale	3
Reliability coefficient (α)	0.9122

Sources: Researcher computation, (2023)

The result in the table show that, the reliability coefficient of the Cronbach alpha is ($\alpha = 0.9122$) which is greater than accepted value 0.7, hence the data in the model indicated has excellent accepted reliability value.

CHAPTER FIVE

FINDINGS DISCUSSION

5.1 Introduction

In this section, the findings result were stated in reference of the study objective on examine the effects of tourism sector development on economic growth in Zanzibar in the observed presented factors, also it explain the discussion of descriptive statististics and analysis of correlation matrix, diagnostic test estimation for variability of the study and finally select model as well as check consistency of selected data.

5.2 Discussion of Descriptive Statistics and Correlation Matrix

Descriptive statistic delivers analysis of the study variables summary, generally presenting the, standard deviation, mean value, maximum and minimum values of each measured variables and finally Correlation matrix give out the strength summary associated between independent and dependent of the study analysis variables.

5.2.1 Discussion of Descriptive Statistic

According the study analysis result on the period between 2005 to 2020, Zanzibar recorded an average of international tourist of 249954.3 while lowest arrivals recorded 134401 and highest arrivals was 538264 , The exchange rate in that period recoded an average score of 1663.438usd/tzs while lowest score 1102usd/tzs and highest score was 2309usd/tzs, also on the side of Government expenditure in commission of tourism recorded an average expenditure of 6,520,000,000TZS while the lowest expenditure recorded 1,100,000,000TZS and the highest expenditure was

2,370,000,000TZS.

The descriptive Summary of average mean supports the overall objectives that, the variables selected take a basic obligation in examining the effects of tourism sector development in Zanzibar due to the capacity of independent variable influence to dependent variable. The observed result have significant impact to the overall economic development (vision 2020) on improving Zanzibar economy.

5.2.2 Discussion of Correlation Matrix

From the analysis, sixteen (16) observations number were observed in the study, without omitted variables and the results of Table 4:5 propose a positive correlation among tourism sector development and economic growth with correlation index of (0.8818) for foreign exchange rate and government expenditure of (0.7770), meaning a one unit increase leads to a subsequently slight increase in economies in Zanzibar. The result recorded strongly support The World Tourism and Travel Council report of 2020 shows that, in 2019 tourism sector funded US$ 8.9 trillion (10.3%) of global growth domestic product (GDP) and 330 million jobs.

5.3 Discussions of Diagnostic Tests estimation Results

The sample data diagnostic test of estimation set different conducted diagnostic assessments .The conducted multicollinearity tests counting the variance inflation factor (VIF) for each regressed variables and show extent of co-linearity. The performed Shapiro- Francia tests indicated the normality of distributed data. Also Autocorrelation were implemented and finally unit root were carried out. All these were test the efficiency and reliability of the used data in the study. In persuading the

effects of tourism sector development for economic growth of Zanzibar.

5.3.1 A Multicollinearity Test

The test was examine the interference of disturbance in dependent variable, if data reliability were clearly observed, A multicollinearity test were conducted to fit the study regression model, the VIF mean was 4.75 which indicate the absence of multicollinearity problems between the model explanatory variables as presented in table 4:4. Also the VIF result was 1/Tolerance and shows the degree to which international tourist arrivals, foreign exchange rate and government expenditure signifies in explaining variables, it is always smaller than or equal to 1. Also the study result show tolerance value lies between ≤1. The mean VIF is equal to 4.75 which is smaller than 10.

5.3.2 Normality Test

Normality test was among the preferred conformity test of the distributed data used in a research particularly for time series data to give statistical evidence on the sampled data distribution for the study when providing interpretation to the study.

The Shapiro-francia W test was among the preferred normality test since it provides significant and clear result for large and small sampled data. Asghar & Sareh (2012) suggest its importance if taken in consideration in small sample size, actually it based on corresponding normal score and among the correlation data.

This study accepted Shapiro-francia W test as it measures the distribution asymmetry of the score. If the values of Shapiro francia test are equal to zero, then the distribution considered as normally, the Shapiro Francia W Test of Normality

revealed that p-value is 0.5354 higher than 0.05 significance level. From the study P-value (Prob>Z) greater then significance level the test of the study refuse to reject the null hypothesis. The result of the study supports the argument that, the data are normally distributed.

5.3.3 Heteroscedasticity and Autocorrelation Test

The Cook-test/Breusch-Pagan were performed to identify heteroscedasticity problem according to the results the test P-value is 0.5108 greater than 0.05 significance level ($\alpha = 0.05$), we fail to refuse the null hypothesis. Thus, we assumed the presence of homoscedasticity, this suggests that, the used test supports the study objective for the selected independent variable.

5.3.4 Unit Root Test

The Augmented Dickey Fuller was used to test stationarity of the data on examine effects of tourism sector development on economic growth of Zanzibar, the statistics test revealed -2.284 is higher than -3.6 critical value at 5% level of confidence which are more negative, therefore the null hypothesis of non-stationarity was accepted and refuse the alternative hypothesis of stationarity. However, the chosen methods is a common time series assumption techniques as contended by Gupta, (2014).

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Summary

The research examines effects of tourism sector development on economic growth in Zanzibar. The Stata version 13 was analytical tool employed in the research. The key objective of research was to examine effects of tourism sector development on economic growth in Zanzibar for period of 2005 -2020. The secondary information used by researcher on acquired data from review of various related study and government published in period of 2005 -2020, also the data were found from Office of chief government statistician (OCGS), Zanzibar tourism Commission (ZTC), Zanzibar investment promotion authority (ZIPA), Migration of Zanzibar and Bank of Tanzania (BOT).

The study employed multiple regression model to find the economic growth of Zanzibar (EC), a test of Adicky fuller (ADF) stationarity model was used to examine unit root in research variables of time series data, Correlation Matrix, Co – integration Johansen test was also used to examine the existence of long run correlation among the variable and regression analysis were carried out in determining the coefficients.

After conducting correlation analysis it was seen the positive correlation between international tourist arrivals, foreign exchange rate and government expenditure on enhance tourist development for economic growth of Zanzibar. The results suggested the necessary action should be taken on develop tourism industry in Zanzibar for economic growth of Zanzibar.

6.2 Conclusion

The significance of tourism industry in the development stage become a substantial matter and rise extensive debate on improve national income, given the benefits in the country and minimize costs of operation towards development. In Zanzibar, the tourism industry is rising fast, and its contribution on growth is significant, The tourism industry investment tend to assist the local people inline of development multiplier effect, the study conclude that creative action should be taken on stabilize higher fluctuation of exchange rate in Zanzibar and finding new market in abroad to increase number of arrivals together with attract internal tourist, however, these activities has higher effects on tourism sector development and influence in economic growth of Zanzibar. Although some tourism activities lead to have undesirable effects to the environment and societies but still Zanzibar need this sector to boost their economy which was affected from COVID 19.

Although, Zanzibar tourism industry faces higher challenges that can obviously delay its further development, such as electricity and water scarcity, shortage of skilled staff, and repeatedly serious accidents which effect tourists (example, sinking of two Zanzibar's ferryboats in 2011 and 2012), but still large percent of budget in government of Zanzibar depend from tourism sector. The study conclude that, foreign exchange rate, international tourist arrivals and government expenditure has higher relationship on development of tourism sector and facilitate economic growth of Zanzibar, government should insure renovate infrastructure, control higher fluctuation of exchange rates and special training should be given to the society on cleaning and protect the natural environment.

6.3 Recommendation

There is the need for government intervention into the tourism sector through relevant policies such as enhancing the tax body on all foreign companies dealing with tourism activities within the country; the tourism industry development will also lead development to other correlated sector. Hence, the finding certifies the requirement of the government to work strictly with tourism industry stockholders in Zanzibar. Zanzibar government should make efforts on promotes tourism sector as well as development of new products and services on rising demand of international tourism on attract and encourage more tourists from different parts of the word.

Finally, Zanzibar Island should maintain the political, economic and social stability, for ensure more tourists visit in Zanzibar and especially attract those high quality tourists.

6.4 Area of Further Research

Tourism industry is the growing and dependent economic sector which create employment and facilitate economic growth in Zanzibar, the wide and important of this sector make a large gaps which need to be examine for further growth of the country. However, the research findings did not explained all activities which influence development of tourism industry on economic growth in Zanzibar. The research examine only some effects like foreign exchange rate, international tourist arrivals and government expenditure and left on discussion another factors like Inflation, regulations, training and availability of skills labor, environment and marketing

Consequently, in another study the researchers should elected other factors in tourism sectors which enhance yield of revenue and income. Similarly further research should wish to explore benefits which countries gain from well-arranged techniques of tourism sector development.

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APPENDIX

Research Clearance Letter

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

THE OPEN UNIVERSITY OF TANZANIA

Ref. No OUT/ PG202000525 **5th June, 2023**

Director of Finance,
Bank of Tanzania (HQ),
P .O. Box 2939,
DAR ES SALAAM.

Dear Director of Finance,

RE: RESEARCH CLEARANCE FOR MR. MKOMBOZI HASSANI MOKIWA, REG NO: PG202000525

2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007.In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief

background, the purpose of this letter is to introduce to you **Mr. Ahmed Yahya Issa, Reg. No: PG202086225)** pursuing **Master of Science in Economics (MScECONOMICS).** We here by grant this clearance to conduct a research titled **"Effects of tourism sector development for economic growth of Zanzibar: 2005-2020".** He will collect his data at your office from 7th June to 7th July 2022.

4. In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820.We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA

Prof. Magreth S.Bushesha

For: VICE CHANCELLOR