TAX INCENTIVES, INTERNATIONAL COMPETITIVENESS, INVESTMENT CLIMATE AND FOREIGN DIRECT INVESTMENT IN EAST AFRICA COMMUNITY PARTNER STATES

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

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DECLARATION

This thesis is my original work and has not been presented for any academic or other award to any other college, institution or University other than University of Nairobi.

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DEDICATION

I dedicate this thesis to my family members for their moral support and encouragement.

Special mention to my dear lovely wife Dr. Waturi Murage and my children Ngatambu,

Gitonga, Macharia and Wanjagi.

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ABBREVIATIONS AND ACRONYMS

AGOA	-	African Growth and Opportunity Act
AfDB	-	African Development Bank
AR	-	Auto-Regression
AU	-	African Union
BLUE	-	Best Linear Unbiased Estimates
CEE	-	Central and Eastern European
CIT	-	Corporate Income Tax
COMESA	-	Common Market of East and Southern Africa
CTR	-	Corporate Tax Rate
EAC	-	East Africa Community
ECM	-	Error Correction Modelling
EAMU	-	East African Monetary Union
EMU	-	European Monetary Union
EU	-	European Union
FDI	-	Foreign Direct Investment
FE	-	Fixed Effects
FWD	-	Farm Works Deductions
GDP	-	Gross Domestic Product
IDA	-	Investment Deduction Allowance
IMD	-	International Management Development
IMF	-	International Monetary Fund
ITCI	-	International Tax Competitiveness Index
JNT-A	-	Justice Network Africa
LAPSSET	-	Lamu Port Southern Sudan-Ethiopia Transport
LCC	-	Levin-Liu- Chu
MDA	-	Mining Deductions Allowance
MERT	-	Marginal Effective Tax Rate
MNCs	-	Multinational Corporations
MNEs	-	Multinational Enterprises
NEG	-	New Economic Geography
NMCs	-	North Member Countries
NSE	-	Nairobi Securities Exchange
OECD	-	Organization of Economic Cooperation and Development
OLI	-	Ownership, Location and Internalization
PCSE	-	Panels Corrected Standard Errors
PFI	-	Portfolio Investment
PRC	-	People's Republic of China

RECs   -   Regional Economic Communities
RE   -   Random Effects
REIOs   -   Regional Economic Integration Organizations
RTAs   -   Regional Trade Agreements
SADC   -   Southern African Development Community
SMCs   -   South Member Countries
VIF   -   Variance Inflation Factors
TES   -   Tax Expenditures Statement
TAXHOL   -   Tax Holiday
UNCTAD   -   United Nations Confederation of Trade and Development
VAT   -   Value Added Tax
WCY   -   World Competitiveness Yearbook
WGI   -   World Governance Index

ABSTRACT

Foreign Direct Investment (FDI) has become an essential and effective economic catalyst for stimulating economic development especially by countries with low domestic savings. Therefore, countries around the world employ different strategies aimed at attracting more FDI, key among them being provision of tax incentives. Nevertheless, the link between tax incentives and FDI is one of unresolved issues in public finance with empirical studies registering conflicting results. This study therefore, sought to determine the relationship among tax incentives, international competitiveness, investment climates and FDI inflows in East Africa Community partner states. The study was anchored on the theoretical explanations of the neoclassical investment theory and positivistic philosophy. A panel data of the five states in the EAC: Tanzania, Rwanda, Kenya, Burundi, and Uganda was used, with the unit of analysis being the individual partner state. The study employed secondary data, for 16-year period, from 2002 to 2017. The data was analyzed using inferential and descriptive statistics aided by STATA version 14 statistical software. Descriptive statistics were employed to summarize the data using mean, standard deviation, maximum and minimum values among other measures of central tendency. Inferential statistics entailed panel linear regression and correlation analysis. Tax holidays and period of losses carried forward did not have statistically significant influence on FDI inflow. Investment allowances had a positive statistically significance influence on and FDI inflow. Export prices, consumer prices and export growth as indicators of international competitiveness did not have any mediating effect on the relationship between tax incentives and FDI in the five EAC partner states. In addition, the study established that corruption as an indicator of investment climate had an influence on the relationship between tax incentives and FDI in the five EAC partner states. However, Political stability, trade openness and electricity supply did not have influence on the relationship between tax incentives and FDI among the five EAC partner states. Jointly, tax incentives, international competitiveness and investment climate had statistically significant influence on FDI inflow and accounted for 13.48% variations of FDI inflow. Trade openness had a positive statistically significance influence on FDI. The study recommends that; provision of more investment allowance, eradication of corruption and enhancement of trade openness in EAC partner states. Additionally, EAC partner state should cease offering tax holidays and period of losses carried forward. The study contribute to knowledge by providing evidence that investment allowances and trade openness have statistically significance influence on FDI. In addition, the study shows that FDI relationship with tax holidays and period of losses carried forward is influenced by the level of corruption. Further studies could be conducted to establish the effect of tax incentives in attracting sectorial-based FDI. A comparative study of different economic blocs such as SADC, COMESA and EAC on effectiveness of tax incentives in attracting FDI can be conducted in future.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Foreign Direct Investments (FDI) are an essential and effective economic catalyst for stimulating economic development in developing countries. Penev and Marusic (2014) assert that developing and emerging countries recognizes FDI as a springboard to economic development. Tuomi (2011) opines that empirical research suggest that there is enhanced economic growth in economies open to FDI compared to closed economies. FDI boosts economic development of a host country through generation of employment opportunities, improvement of capital formation, enhancement of exchange reserves and advancement of the culture of competition. Other advantages of FDI include higher domestic income through taxation of salaries, more exports, promotion of best management practices, enhancement of capital stock, enrichment of global trade networks, higher levels of skills transfer, technology spillovers and improvement of financial resources (Peters & Kiabel, 2015; Mughal & Akram, 2011). Furthermore, FDI are preferred because they are more resilient even during the time of crisis since there investments are long term in nature (UNCTAD, 2012).

Therefore, countries around the world employ different strategies to attract more FDI, key of which is tax incentives (Bolnick, 2004). Nevertheless, the connection between fiscal policy and FDI remain unresolved in public finance with empirical studies showing conflicting results. Appropriate fiscal policy framework can establish tax incentives that improve a country's international competitiveness thereby, attracting FDI (Brodzka, 2013). However, tax incentives may at times fail to compensate adequately for poor investment

climate that is evident in many developing countries. This problem mainly results from poor infrastructure, lack of trade openness, weak judicial systems, small market sizes and, most importantly, political instability (Morisset & Pirnia, 2001). This point to the fact that proper investment climate need to be in place for the fiscal measures to work. Hence, the link between investment climate and fiscal measures is paramount.

The conceptualization of this research borrows from the neoclassical investment theory (Jorgenson, 1963), the eclectic theory (Dunning, 1977), new economic geography philosophy (Krugman, 1991), tax competition theory (Tiebout, 1956), monopolistic power model, product life cycle theory and internalization model. Neoclassical investment theory explains   interface between a country's fiscal policy framework, which determines its taxation regimes, and its ability to attract FDI. This theory argues that tax incentives makes the production cost to go down, this will be attractive FDI (Moosa, 2002). Similarly, eclectic theory by Dunning (1977) seeks to expound the interface between fiscal incentives, country competitiveness and FDI. Through its analogy of OLI the theory espouses the benefits which accrue to a business from any of the three factors of the OLI framework. The new economic geography theory by Krugman (1991) explains the relationship of investment climate, fiscal measuares and FDI flows. The theory holds that manufacturing firms tend to relocate to areas with high demand for their products in order to reduce transportation expenses, take advantage of scaling up and improved interconnectivity a geographical area.

Tax competition by Tiebout (1956) explains movement of FDI as a function of tax differentiation as viewed by individual firms (Wellisch, 2000). This explains the need for formation of Regional Trade Agreements (RTAs) and Regional Economic Integration

Organizations (REIOs) to compete for FDI by providing harmonization of tax regimes and availing diverse tax incentives for members and non- members (DeMooij & Ederveen, 2003). Additionally, the Kindleberger (1969) monopolistic power theory holds that a company can only take advantage of its monopolistic status overseas if only permitted by the home state (Nayak & Choudhury, 2014). Product life cycle model states that firms invest abroad in the later stages of their life.These stages are the standardized product stage and maturing product stage. Hence, multinational corporations (MNCs) will start by product exportation and ultimately carry out FDI throughout the product's life cycle (Kottaridi, Filippaios & Papanastassiou, 2004). Finally, the internalization theory explains how FDI leads to maximization of profit in an imperfect market condition (Onyinyechi & Ekwe, 2016).

Six countries make up East Africa Community (EAC): South Sudan being the youngest, Burundi, Tanzania, Uganda, Kenya and Rwanda. It was initially formed in 1967 as an economic bloc but collapsed in 1977. The aim of its first formation was to promote investment by increasing international competitiveness of the region (Mugisa, Onyango & Mugoya, 2009). In 1999, Uganda, Kenya and Tanzania resuscitated the regional bloc. In 2007, Rwanda and Burundi were admitted. South Sudan was the last to be admitted to the community in 2016.

There was negligible inflow of FDI in EAC in 1990s. The growth of FDI flows to EAC started in early 2000s (Penev & Marusic, 2014). The amounts of FDI to the EAC vary among different countries, meaning various factors accelerate or decelerate the rate of FDI inflow. A report by Tax Justice Network indicate that fiscal incentives in East Africa benefit the EAC countries differently and that foreign investors have taken more benefits than the local

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countries have benefitted (Network-Africa, 2012). EAC partner states have been seeking to harmonize their tax regimes to stop tax competition amongst themselves. EAC states gives various fiscal incentives to attract FDI.

1.1.1 Tax Incentives

It's also refered to as fiscal incentives. Various scholars have come up with different definitions of tax incentives. Klemm (2010) opines that it is all forms of unique tax dealings targeted at particular sectors or activities only, unlike universal tax treatment applied to all. Tax incentives are also referred to as fiscal incentives. Bolnick (2004) argues that these are fiscal actions which   government takes to lure both domestic and international investment. Tuomi (2011) defines tax incentives as a facility by government that awards investors with an advantageous environment that departs from the normal tax legislation. Globalization has increased the importance of tax incentives because investment locations are increasingly becoming more and more similar and competitive (Munongo, 2015). Lodhi (2017) argues that fiscal incentive policies are founded on two principles: Firstly, enhanced investment is necessary for quick economic growth and secondly, greater investment will be stimulated when fiscal measures are employed.

Developing nations use fiscal incentives to entice FDI, hoping that increased FDI will boost development in the host country. These states use fiscal measures   as a counterweight to business disincentives that are prevalent in their economies (Brodzka, 2013). Zee, Stotsky and Ley (2002) point out how fiscal incentives help in reducing tax burden of specific investment projects while Wilson (1999) opines that escalation of tax rate in a state will lead to relocation of mobile capital to other destinations with a lower tax rate. Therefore, tax

incentives effectively lead to attraction of FDI since they reduce tax rates. This leads to accrual of attendant benefits such as development of worldwide export and import networks, increased revenue, social benefits such as creation of jobs, signaling effects, and positive externalities like skills development, infrastructure development, and technological transfer (Kinda, 2010). However, provision of fiscal incentives can lead to revenue loss especially where the realized investments would have been made even without granting the incentives. The cost of providing fiscal incentives goes beyond revenue losses to include other costs such as administrative costs, trade distortions and rent seeking costs (James, 2013).

Tax incentives are in various forms. United Nations Confederation of Trade and Development (UNCTAD) argues tax incentives comes in different ways: investment allowances, tax holidays, period of losses carried forwards, reduced rate of corporate income tax, investment tax credits, deductions for qualifying expenses, tax credits for value addition and zero or reduced tariffs (UNCTAD,2000).

Provision of a tax holiday is a situation where new foreign investments are exempted either partly or completely from payment of corporate income tax for a certain duration of time. (UNCTAD, 2000). In spite of criticism from various quarters' tax holidays, continue to be very popular globally (Cleeve, 2008). The popularity of tax holidays emanates from the fact that they are easy to implement and will not involve actual cash out flow payment by the host nation. However, it has several shortcomings. James (2013) identified some drawbacks associated with the tax holiday. Firstly, it is a blanket benefit without having any condition of how much one should have invested. Secondly, corporations having subsidiaries outside the country misuse the provision of the tax holidays for transfer pricing practices, i.e.

channeling profits from another jurisdiction to where a tax holiday is being enjoyed. Thirdly, firms have the bad   habit of relocating to other jurisdictions after the current tax holiday is over. Hence, they close down and move to another country to start enjoying tax holiday a fresh.

Investment allowances are packaged in different ways such as capital deductions, special zones investment allowances, investment deductions, accelerated depreciation, buildings allowances, timing difference, wear and tear allowances and investment tax credit (Klemm & Parys, 2012; James, 2013). Investment allowances have various advantages. Firstly, they are only offered when the actual investment has occurred which in actual sense is the real aim of permitting the fiscal incentives and secondly they are not complicated to implement. However, they have been criticized because they cause distortions between old established investment and new investments (Klemm, 2010).

Period of losses carried forward is a tax incentive method used by governments to lower effective tax paid by investors. Investors are allowed to spread business losses forward for a stipulated period time. The losses spread forward will be deductible against future taxable income. It is helpful and very much valued by investors particularly those who are likely to make losses in their early formative years when they are penetrating the new market (UNCTAD, 2000).

Tax policies have been shaped around the world by the desire for countries to remain competitive in a progressively globalized economy (Klemm, 2010). Provision of tax incentives has led to international tax competition, which can technically be defined as a race to the bottom. This is a phenomenon where countries (especially neighbors) with

roughly the same investment climate compete with each other in giving generous fiscal incentives thereby leading to massive losses of revenue (James, 2013). According to Klemm and Parys (2012) tax competition through provision of tax incentives in developing countries has only succeeded in attracting footloose investments, which relocate to other tax favored jurisdictions upon expiry of tax incentive period. Tax competition leads to loss of much needed revenue especially by developing countries. Berkhout (2016) observes that the corporate tax revenue to total tax revenue ratio is twice as important in developing and poor countries as compared to rich countries. Therefore, it is imperative that developing countries collect as much revenue as possible to advance their development agenda. Hence, an analysis of how much benefits the host country receives against the cost incurred due to provision of tax incentives is vital (Fleinkman & Plekhanov, 2005).

Fiscal policies formulated for attracting business are highly recommended as one way of improving international competitiveness of a nation by being able to influence location of globally mobile capital (Eyraud & Lusinyan, 2013). Tax incentives will be of benefit if they will lead to investments that would not have been made in the host country were it not for the fiscal incentives. The new investments will result to increased revenue and improvement of general wellbeing. Foreign exchange earnings will also be enhanced by increased FDI. Improvement of local skills will also be expected alongside technological transfer. Notwithstanding the noble intentions, use of fiscal measures to attract business is controversial. It bring along expenses like foregone revenue, welfare, administrative expenses and spillover costs. Furthermore, the degree of effectiveness of the fiscal measures in attracting FDI is not known (Parys & James, 2010).

Administratively there are two different forms of fiscal incentive regimes: Automatic fiscal incentive regimes and discretionary tax incentive regimes (Morisset & Pirnia, 2001). In an automatic tax incentive regime, a criteria is established where a firm qualifies automatically upon meeting set conditions. This is a very objective method, which is less costly administratively. A discretionary fiscal incentive regime is subjective since it involves decisions that are made at the discretion of government officials. Tax incentives granted will depend on the outcome of a case-by-case evaluation exercise. One of disadvantages of this regime is that, it can encourage rent seeking. Additionally, it is more costly and time consuming. Another cost of tax incentives is the revenue lost, which can also be viewed as a tax expenditure. The costs are more pronounced in instances where the costs due to provisions of tax incentives leads to spillover costs. Due to tax incentives, revenue is lost, inevitably leading to opportunity cost. The government of the host country either will reduce public spending/benefit or be forced to tax other sectors of economy to plug the hole left by the tax expenditure (Easson, 2004). Tax holidays, period of losses carried forward and investment allowances were used as tax incentives proxy in this study. As these are most prevalent fiscal measures in the EAC.

1.1.2 Foreign Direct Investment

Easson (2004) opines that there are two types of investments that are affected by international fiscal policies: foreign direct investments and portfolio investment (PFI). Differences between PFI and FDI is the percentage of control. An investment is categorized as PFI when the percentage ownership by a foreign entity is 10% or less. PFI ownership is passive and does not participate in the running of the foreign entity. FDI is a commercial undertaking by an entity in one country (host state) with commercial interests in foreign

state. It can be through either starting commercial enteprises or acquiring commercial control of properties in a foreign state (Demirhan & Masca, 2008). FDI is the flow of investments to a nation state different from the investor's home nation. The investment should be permanent in nature (World Bank, 2012). "Organization for Economic Co-operation and Development (OECD, 1996) gave a yardstick meaning of FDI as" "Investment with the objective of acquiring a lasting interest by a resident entity of one economy (direct investors) in an enterprise operating in an economic environment other than that of the investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence on the management of the enterprise."

According to Easson (2004) there are various factors which influence foreign investments which include political stability, good communication, good infrastructure network, tax and other investments incentives, free repatriation of profits, satisfactory dispute settlement mechanisms, skilled labour force, lack of bureaucratic obstacles and investments protection agreements that alleviate the risks associated with nationalization. FDI takes a number of forms: Greenfield investments (real investments in factories or production plants), joint ventures (creating global strategic alliances), brown field investments (acquiring existing manufacturing facilities to start a new production line) and cross border mergers and acquisition (Zolt, 2015). Each of the above four forms of FDI can take any of the following four major objectives namely: strategic assets oriented objective, natural resources exploitation, efficiency seeking, and finally there are those concerned with market exploitation (Dunning, 1977).

Market seeking firms consider horizontal strategy to penetrate the host country domestic markets. The aim is to serve the surrounding markets with locally produced commodities. Therefore, host countries' economic growth prospect, market size, openness and accessibility to neighboring markets are key consideration in deciding whether to invest in the host country (Vijayakumar, Sridharan & Rao, 2010). Efficiency seeking multinationals employ vertical integration strategy to minimize cost of production especially in developing countries. Most of the activities are moved to where the production takes place and seek to minimize cost by controlling the entire process from production to marketing. Resource seeking multinational corporations (MNC) invest in countries with rich natural resources, which they use as raw materials and take advantage of cheap labor force and physical infrastructure (Kinoshita &Campos, 2006). The objective of strategic asset seeking MNCs is to take advantage through strategic location, which helps them to take advantage of foreign networks, advanced technology, organizational abilities, market intelligence, management expertise innovation as well as access to research and development (Cleeve, 2008).

1.1.3 International Competitiveness

Leko-simic (1999) defines International competitiveness as the capability of a nation to export its merchandise to the world market. It is the degree to which a state, can make its self be the most preferred investment destination for a firm that seeks to invest internationally (Knoll, 2012). It denotes the capacity of a country to spur development by being the preferred investment destination by multinationals, as opposed to its peers without getting into balance-of-payments difficulties (Fagerberg, 1988). According to Kharlamova and Vertelieva (2013), international competitiveness is the capacity of nations to build and sustain favorable atmosphere in which enterprises can effectively compete. International

competitiveness of a nation state is determined by its efficiency compared to that of competitor's economy, in using its resources in meeting the test of international competition (Rao & Sharma, 2006). International competitiveness compares a country's economic features against other countries and come up with international trends (Shimutwikeni, 2012). World Competitiveness Yearbook (WCY) annualy ranks countries according to their competitiveness and one of the parameters is the ability of a country to promote investment (Anastassopoulos, 2007).

International competitiveness is a complex concept with many dimensions (Hickman, 1992). Scholars have viewed the concept in both macro (nation) and micro (firm) perspectives. Competitiveness at micro level denotes firms competition within a nation and how it eventually influences international markets. Competitiveness at macro level refers to competition among countries (Taner, Oncu & Çivi, 2000). Therefore, indicators of international competitiveness include both macro and micro economic factors. This study, conceptuarised international competitiveness as those aspects of economy that are affected by provision of tax incentives at macro level. Knoll (2012) argues that taxation affects countries international competitiveness by influencing the cost of production therefore affecting the capability of countries to entice foreign investments. This study has conceptualized international competitiveness as the mediating variable between tax incentives and FDI relationship. Consequently, trade related measures of international competitiveness that are triggered by presences of tax incentives are considered in the study. These trade related indicators comprises of export prices, consumer prices and export growth (Swagel, 2012).

According to Knoll (2012), competitiveness is applied at the national level in order to make comparisons across nations. Durand and Giorno (1987) noted that international competitiveness of a country is greatly determined by consumer prices, as well as export prices. The fore mentioned indicators determine the competiveness of the products at the international market. All these variables are shaped by the fiscal policy, which determines the taxation regimes. Because of emergence of the globalilazation and global village corporations have several choices when determining where to invest in. A country would be said to be more internationally competitive when its goods are produced at lower cost and better quality compared to other countries. Tax incentives by lowering cost of production improves countries international competitive ranking (Fletcher, 2002).The taxation regime adopted by a country will either make commodities produced in the country competitive or uncompetitive.

Export prices as a proxy of international competitiveness represents a country's export market shares meaning the percentage share of exports relative to a matched comparator frequentky cited as a measure of competitiveness (Kharlamova & Vertelieva, 2013). Export prices measures the degree countries lose or gain market share internationally. For instance, when a country's exports are growing quicker than that of its partners it will mean that the country market share is increasing (Hunya, 2000). Relative export prices index expressed in a common currency is the commonly used choice for measuring competitiveness. In addition, the export unit value indices that are based on the average value of goods traded can be used as proxy for export prices (Knoll, 2012). Another measure of export prices is the export intensity, which shows how much revenue is being made from exporting locally produced goods (Hall & Lee, 2008).

Consumer prices are another major indicator for international competitiveness. Consumer prices are calculated using a basket of comparable goods among different countries and much statistical effort is ensured when determining the accuracy (Durand & Giorno, 1987). Consumer price index (CPI) was used to measure consumer inline with past studies (Das, 2017).

Export growth is an important indicator of international competitiveness. Export growth focus on the degree to which locally produced goods are sold to foreign countries (Hall & Lee, 2008). Export sales growth denotes that a company wants to enter new transnational markets through the adoption of conservative tactics of diversification, while the decline in export sales indicates that a company wants to pull out of the global markets, become more capital-intensive exporting strategy, or continue with strategies for global expansion like being a wholly owned subsidary (Hall & Lee, 2008). Growth in exports is normally proxied using the export growth ratio, which is determined by the percentage of growth between the preceding year and the current year (Athanasoglou, Backinezos & Georgiou, 2010).

1.1.4 Investment Climate

Investment climate is defined as regulatory, institutional and policy frameworks that determine economic and financial conditions that act as inducements to private sector investors to venture into a foreign market (Weingast, 1995). It is also defined as business and commercial conditions in a country, which determine whether individuals and corporate can acquire investment stakes by locating in the country. The concept of investment climate is broad and wide; it can include all macroeconomic factors prevailing in a country. James (2013) avers that the amalgamation of non-fiscal measures state uses to attract incentives

represent investment climate. This study conceptualized investment climate to include only the non-tax macro-economic factors. That is macro-economic factors, which cannot be influenced by variation in tax policy like: market size, electricity supply, political stability and corruption and trade openness (Tuomi, 2011). Tax breaks are unproductive in attracting investments in nations with bad investment climate. Therefore, FDI and tax incentives relationship will be moderated by investment climate (Bolnick, 2004). Where countries have similar investment climate, the significance of tax incentives to entice FDI is often underscored (Moosa, 2002). According to Morisset and Pirnia (2001), fiscal incentives role will be more pronounced in a region where the countries have a similar investment climate

Market size has been defined using both gross domestic product (GDP) and population size (Akin, 2009). In markets where level of incomes are high demand of goods is high. Therefore, levels of income should always be factored when determing the market size (Busse & Hefeker, 2007). The critical role played by size of the markets in attracting investments has seen emergence of regional trading blocs (Zhang, 2008). According to (Kok & Ersoy, 2009; & Wheeler & Mody, 1992) investors value market size because with huge markets they can take advantage of economies of scale. Bigger markets will enable investors take advantage of factors of productions and will enhance optimal use technology (Shah, 2014).Therefore, with the same amount of tax incentives, a state with a big market size will appeal to more FDI compared to a state with small market size (Chakrabarti, 2001). However, Asiedu (2002) opines that market size does not determine FDI location in developing countries because of low income.

Shah (2014) noted that smooth running of multinational companies will be reinforced by availability of excellent supportive infrastructure. Therefore, a country offering tax incentives and with good infrastructure will be more attractive to MNCs compared to another

country offering the same level of tax incentive but with poor infrastructure. This is because; good infrastructure reduces costs of doing business for the firms leading to increased investment output (Akin, 2009; Asiedu, 2004). Different indicators have been used as proxies for infrastructure including electricity supply, fixed telephone lines, mobile phone subscribers, total length of tarmacked roads, international airports, and government spending on transport network (Ogunjimi & Amune, 2017; Shah, 2014; Akin, 2009; Asiedu, 2002; Billington, 1999). The current study used access to electricity as one of indicators of investment climate.

Corruption is misappropriation of public resources for personal gain (Chande, 2014; King, 2003; Getz & Volkema, 2001). However, this definition excludes private sector corruption, which also affects investment just as public sector corruption does. Abed and Davoodi (2000) viewed corruption as a symptom of weak institutions and economic distortions in a country and argue that corruption is not entirely an economic phenomena but also manifest itself in areas like political processes, legal system etc. King (2003) avers that investors view corruption as an impediment to doing business, because it is an extra cost they will have to incur. According to Klitgaard (1988), corruption erodes confidence, breakdowns rule of law, affect people's faith and self-esteem and ultimately discourages FDI resulting into decreased economic development. Conversely, Nye (1979) opines that corruption and economic development are positively correlated.

Political risk influences where FDI will be (Lucas, 1990). Busse and Hefeker (2007) identified indicators of political risks in a host country which includes adherence to law and order, stability of government, presence of democratic rights, and absence of ethnic

tensions and lack of internal conflict. Trade openness is a situation where countries allow trade with other countries. This involves exchange controls, importation and exportation of goods and services, global financial transactions, funds repatriation etc (Busse & Hefeker 2007). Open economies have got greater market opportunities even though they are also exposed to competition from companies based in other countries (Dritsaki, 2015). According to Jordaan (2006) Less open economy will enhance the relationship between tax incentive and FDI for a market seeking FDI leading to more foreign investment for the same tax incentive given in a more open economy. While provision of tax incentives to export oriented multinational enterprises in an open economy make sense to an efficiency seeking FDI compared to when the same tax incentives are afforded to a closed economy.

1.1.5 East Africa Community Partner States

The regional bloc is made of six countries namely: South Sudan, Burundi, Tanzania, Rwanda, Kenya and Uganda headquartered in Arusha, Tanzania (Penev & Marusic, 2014). EAC is among eight other regional economic communities (RECs) in Africa that are duly recognized by African Union (AU) and the only one with a stated vision in its founding treaty of creating a political federation (Tharani, 2017). According to EAC Secretariat (2018), the total population of EAC partner states excluding Sothern Sudan was about 155 million people by the end of 2017. The bloc was initially founded in 1967 but collapsed in 1977. It was resuscitated on seventh, July 2000 by signing of a treaty by Tanzania, Kenya and Uganda with a vision to generate wealth and boost the global competitiveness of the region by improved production, trade and investments. The collapse of initial EAC in 1977 was attributed to several factors including: absence of solid political goodwill, lack of strong engagement of the private sector as well as the non governmental organization and pressure

groups in community happenings, uneven distribution of community benefits between partner countries and inadequate measures to combat complaints (Penev & Marusic, 2014).

The treaty envisages establishment of custom union (already in place), common market (already in place), monetary union and finally a political federation (Gastorn & Masinde, 2017). The community established a custom union in 2004. A custom union encompasses common external tariffs and a free trade area (Salvatore, 2010). In July 2010, the common market was ratified. A common market enables members states to operate a single market. Implying free movements of citizens, capital,goods ,services enacting of common trade and revenue laws. This greatly advantages the member states by allowing them to contact huge market (Gastorn & Masinde,2017). Notwithstanding coming up of EAC's common market there still exist barriers on free movement of goods capital and services negatively affecting its FDI attractiveness (Penev & Marusic, 2014). The work on establishing monetary union is ongoing. The East Africa Assembly in April 2018 passed a bill creating East Africa Monetary Institute. The institute is charged with preparatory works for establishing East African Monetary Union (EAMU). According to Union & UNECA (2016) the EAC is the most integrated and ambitious regional economic community bloc among the eight regional economic communities in Africa. Reith and Boltz (2011) noted that more work need to be done on integration process as it was noted by "the East Africa Community is strong on paper but weak in implementation of its decisions".

Reith and Boltz (2011) opines EAC partner states cooperation has a very reach history going back to pre-colonial period. Tanganyika the present day Tanzania, Rwanda and Burundi existed as one territory from 1884 to 1919 with Germany as their colonial master. The territory was referred to as Germany East Africa. During the same period, British were ruling

Kenya and Uganda separately. After Germany was defeated in the First World War, it surrendered all its foreign occupations to the victorious powers who divided previous Germany colonial territory to themselves under the Versailles treaty of 1919. Consequently, the Germany East Africa was split into three autonomous territories, which were renamed Rwanda, Burundi under Belgian colonial rule and Tanganyika, which later became Tanzania under British colonial rule. Kenya and Uganda started the integration process in 1895 aided by the Kenya- Uganda railway, which linked the two countries. Kenya and Uganda established a common market in 1900. They later in 1905 formed a monetary union with a common currency. After the defeat of Germany, Tanganyika was taken over by British. To serve the interest of British better, Tanganyika joined the East Africa Community in 1922. After independent, the three countries Uganda, Tanzania and Kenya established a treaty for East Africa Cooperation, which was formerly adopted in 1967. However, the cooperation lasted for only 10 years collapsing in 1977 due to various disagreements (Gastorn & Masinde, 2017).

Governments in the EAC continue granting tax incentives to attract FDI despite heavy criticism from various stakeholders. Tax incentives in the EAC benefits the countries differently and in some extreme cases benefit MNCs to the detriment of local governments (Network-Africa, 2012). Countries with good investment climate are deemed to be more effective in luring FDI compared to states with poor investment climate (Bolnick, 2004).

In the June 2016 budget, Rwanda introduced more incentives to foreign investors by scrapping corporate income tax for multinational corporations investing more than USD 10 million and have their headquarters in Rwanda. Those investing more than $ 50 million

would enjoy tax holiday for seven years. The Rwanda government also increased capital allowances relief, from 40 percent to 50 percent, for investments made in the capital, Kigali (TJN-A, 2016).

Tanzania also continues to provide a variety of incentives. Firms in the EPZ sector receive holiday on payment of income taxes for 10 (TJN - A, 2016). Kenyan government in 2015 introduced more tax incentives through a new special economic zones Act of 2015. Companies registered under this arrangement will enjoy lower corporate income tax rate (CIT) at 10% for the first 10 years and 15% for the next 10years. The Kenya finance Act, 2016 brought in apprenticeship tax incentive. The employers who employ at least 10 university graduates for a period of six months or more would enjoy a tax rebate (Kenya Finance Act, 2016).

FDI inflow in EAC was almost nonexistent in 1990s. Noticeable inflows began in 2000s (Penev & Marusic, 2014). Since 2001, the FDI inflow increased resulting to an increased FDI inflow to GDP ratio from an average value of 12.9% in 2001 to 19.4% in 2013. The Africa, ratio of FDI inflows to GDP was 33.2% in 2013 compared to 19.4% within the East Africa region. Figure 1.1 shows that Tanzania and Uganda recorded the highest FDI inflows 39.1% and 38.3% respectively. FDI stock to GDP ratio in Kenya, amounted to only 7.2% in 2001 despite the country having the largest economy in the EAC bloc, remaining almost at the same level by 2013 while Burundi which is the least developed in the community was only 0.6 in 2013 as shown in Figure 1.1 (Penev & Marusic, 2014).
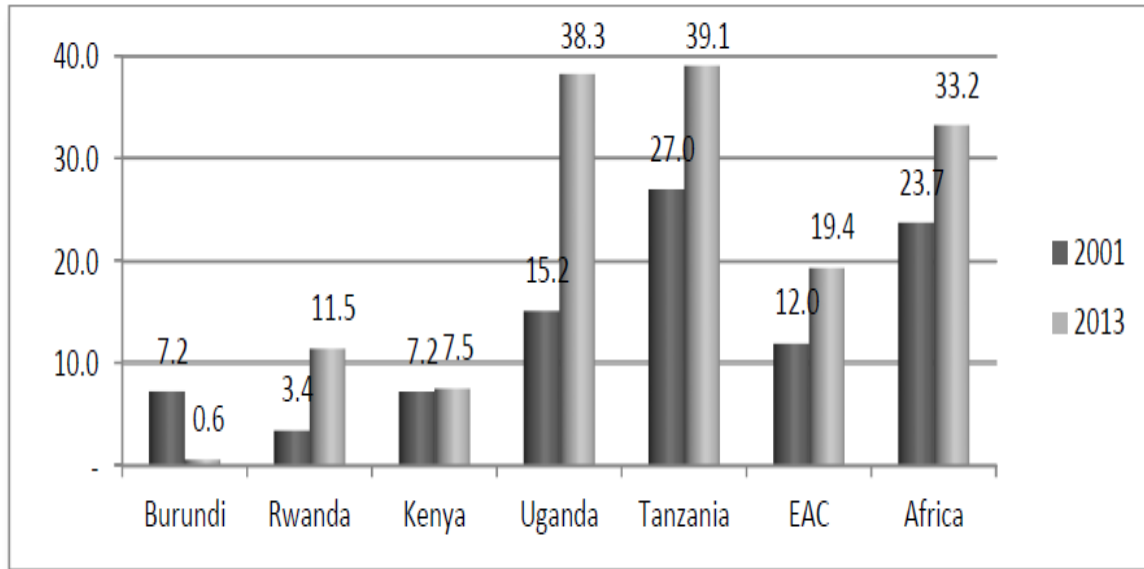
Source: UNCTAD Database Figure 1.1: FDI inflows from 2001 to 2013

A report by UNCTAD (2015) posits that EAC increased FDI flows by 11 per cent in 2014. Kenya attracted 84 projects from foreign direct investment in diverse sectors in 2014. Some of these projects were in renewable and geothermal energy, real estate, roads and railways. In Uganda, increase in the FDI stock has been witnessed mainly because of new equity investment (share capital) in the mining, finance and I.C.T sectors (Uganda Investment Authority, 2015). Similarly, FDI in Tanzania rose by 14.5 percent partly due to discovery of gas in the country while Rwanda and Burundi had an increase of 7% and 5% in 2014 respectively (World Investment Report, 2015). A report by US Department of State on EAC investment climate indicates that, the region investment climate is solid, comprising of strong telecommunications infrastructure, and splendid aviation connection within Africa and to Asia and Europe, big market size and a strong open market economy.

1.2 Research Problem

There has been pervasive use of pecuniary measures to lure FDI albeit the available evidence on its effectiveness is highly inconclusive (Zee et al., 2002). Many governments globally, to stimulate and attract foreign investments provide many different types of tax benefits. However, these tax incentives have had little impact on FDI but have only encouraged tax competition among countries that has resulted in eroding tax bases (Redonda et al., 2018). Provision of tax incentives leads to improved international competitiveness, making a country more attractive to FDI. However, countries need to improve their investments climates for effectiveness of tax incentives to be realised. Hence, Countries with better investment climate are able to attract more FDI in presence of tax incentives compared to states with unattractive investment climate (Pomerleau & Cole, 2015).

East Africa Community Partner states, have seen a surge in FDI in the recent past. For instance in 2014, FDI inflows in EAC increased by 14.35 percent, from USD 6.2b in 2013 to USD 7.09b (UNCTAD, 2015). Tanzania, attracted most FDI recording USD 2.14b in 2014 compared to USD 2.13b recorded in 2013. Uganda came second getting USD1.14b worth of FDI in 2014. Kenya, which has the biggest economy in the region, was third with USD 989m followed by Rwanda, which received USD 267.7m; Burundi received FDI inflows worth USD 6m in the same period. FDI result to creation of jobs, improved technology and skill transfer. However, critics of FDI argues that it upsets existing local businesses causing loss of jobs, and wage stagnation (Asiedu, 2004).

The relationship between fiscal measures and FDI is one of unresolved issues in public finance. The success of fiscal incentives in attracting multinational enteprises will differ depending on jurisdiction of research and the methodological approached employed in coming up with conclusions (Munongo, Akanbi & Robinson, 2017). Evidence from research concerning the   influence of fiscal breaks on FDI flows is inconclusive; studies have produced results oscillating from significant to insignificant effect. Studies indicating tax incentive has statistically significant effect on FDI include: Olaleye (2016); Munongo (2015); Effiok, Tapang and Eto (2013) and Lee(2012) while those showing statistically insignificant effects include: Njoroge (2016); Peters and Kiabel (2015); Tuomi (2011) and Chai and Goyal (2008). The inconsistent in empirical results may point to the possibility, that important intervening or moderating variables such as international competitiveness and investment climate may have been over-looked in carrying the studies.

An empirical research carried out Nigeria manufacturing sector to investigate influence of fiscal incentives on location of FDI by Olaleye (2016) had both methodological and contextual gaps   in comparison to this study. Effiok, et al. (2013) did not consider the intervening effect of international competitiveness, as well as moderating effect of investment climate representing a conceptual and contextual gap. Tuomi (2011) assessing the influence of investment environment and fiscal measures in the FDI location decisions used microdata and firm interviews thus creating a methodological gap in comparison to this study, which employed a longitudinal survey design using secondary panel data methodology.

Similarly, in Kenya, a study by Njoroge (2016) assessed the determinants of FDI growth but the study did not incorporate fiscal measures as one of indicators of FDI hence creating a conceptual gap. Despite the fact that the findings of the reviewed studies ranged from statistically significant to statistically insignificant, none of the studies reviewed assessed the intervening effect of international competitiveness as well as whether investment climate can moderate the relation which exist between the study independent variable and depedent variable. Contextually, the current study did not come across any study that assessed the influence of tax breaks on investment inflows in the EAC region as a bloc. Therefore, the existing empirical gaps will be addressed by seeking to answers the question: what is the intervening influence of international competitiveness and moderating effect of investment climate on the relationship between tax incentives and FDI inflows in EAC partner states?

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study was to establish the relationship among tax incentives, international competitiveness, investment climates and FDI flows in EAC partner states.

1.3.2 Specific Objectives

1. Determine the relationship between tax incentives and foreign direct investments in East Africa Community partner states.

2. Establish the intervening effect of international competitiveness on the relationship between tax incentives and FDI in East Africa Community partner states.

3. Determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states.

4. Establish the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states.

1.4 Value of the Study

Major contributions to the public finance theory and empirical literature in taxation have been made by the study. Emprically investment allowances were found to be the most effective type of tax incentives. Theoretically, the assertions of the neoclassical investment theory are confirmed by the study. Hence making a theoretical contribution. Empirically, the study links tax incentives with investment climate as a moderating variables and international competitiveness as an intervening variable of the association involving tax incentives and FDI.

Policy advisers in global bodies such as IMF and World Bank will be guided by the results of this research concerning the association of fiscal measures and FDI in EAC. The findings of the study contribute to evidence advices policy makes on areas to address when developing fiscal policy on FDI in EAC region. The study fidings have also established indicators of investment climate which investors are keen on before locating there business in EAC region. The study equips tax consultants with the knowledge of available fiscal incentives to be able to advice clients to take advatages of the incentives for tax planning purposes. Further, the study forms part of empirical studies in the area fiscal studies and investments. The research being among few studies focusing in EAC region on tax incentives and FDI provides useful literature to those who will come later to do research in the thematic area.

1.5 Organization of the Thesis

Chapter one introduces the study and chapter two covers literature review. Chapter three focuses on research methodology while chapter four present descriptive analysis. The fifth chapter presents results of hypotheses testing and a discussion of the research findings. Chapter six presents a summary of the study, conclusions and recommendations.

The introduction in chapter one covers the background of the study and provides a discussion of research concepts, which include tax incentives, foreign direct investments, international competitiveness and investment climate. The chapter also provides a discussion of the study's context, research problem, research objectives and finally value of the study.

The second chapter comprises various theories guiding the study among them, the neoclassical investment theory, the eclectic theory, the new economic geography theory, the theory of tax competition, the monopolistic power theory, the product life cycle theory and the internalization theory. The chapter provides an empirical review on tax incentives and foreign direct investments, intervening effect of international competitiveness and the moderating effect of investment climate on the relationship between tax incentive and FDI. The chapter then presents a summary of empirical literature and research gaps and a conceptual framework as well as research hypotheses.

Chapter three covers the methodology used to carry out the study and comprises of the research philosophy, research design, population of the study and the methods of data collection. The chapter also presents the various diagnostics test, which were undertaken, the operationalization and measurement of the study variables and the techniques used for data analysis.

Chapter four presents descriptive statistics results variables. The chapter also presents a cross-country comparison for the five EAC partner states. Further, the chapter brings the graphical presentation of the variables, correlation analysis.

Chapter five presents the results of the various diagnostic tests including multicollinearity test, panel level stationarity, test for serial correlation, test for heteroscedasticity, normality test and model fitting. The chapter also presents the hypothesis testing results and a discussion of the study results. Chapter six comprises of a summary of the study, the study conclusions and the recommendations. The chapter also highlights the contribution of the study to knowledge, the research limitations and provides a suggestion for areas which require additional research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Theoretical foundations of the research is discussed in this section. The chapter delves further to look at various empirical researches on fiscal measures and investments. The chapter also proposes a conceptual model and presents the hypotheses.

2.2 Theoretical Foundation

Neoclassical investment theory (Jorgenson, 1963), the eclectic theory (Dunning, 1977) the new economic geography theory (Krugman, 1991), theory of tax competition (Tiebout, 1956), the monopolistic power theory (Kindleberger, 1969), the product life cycle theory (Vernon, 1966) and the internalization theory (Buckley & Casson, 1976) are the theories which have been used to model the research. The study was anchored on the theoretical explanations of the neoclassical investment theory.

2.2.1 Neoclassical Investment Theory

Neoclassical investment theory has been a dominant lens of analysis in management research on the influence of fiscal policy framework and FDI in developing countries. Jorgenson (1963) developed the theory. According to the theory, the relationship that exists between fiscal incentives and investment is positive. Tax incentive reduces cost of capital hence increasing the return on capital, which will lead to increased investment (Parys & James, 2010). The main attraction of the model is the use of tax parameters in determining capital costs of business production and ascertaining the tax cost on returns on investments (Gemmell,

Kneller & Sanz, 2013). The theory was preferred because it incorporates tax parameter directly into the investment model. The study thus tested the assumption by neoclassical investment model that tax incentives reduce user cost of capital, thereby improving investments in an economy.

The neoclassical investment model calculates the percentage tax cost emanating from fiscal policy adjustments and compares the same with different countries. At the end the effects of tax reforms on investments is estimated by combining empirical estimates with the percentage change on tax liability measures (Eyraud & Lusinyan, 2013). Nevertheless, the theory ignores some of the factors affecting the tax cost on FDI. For example, power for administration to decide on tax liabilities and ignoring the effect of tax planning and other taxes omitted from the model. The assumption by the theory of declining marginal productivity of capital can also be challenged. For instance, business concentration may increase rates of return instead of decreasing as the model assumes leading to different policy implication (OECD, 2007).

2.2.2 Eclectic Theory

It was conceptualized by Dunning (1977). It attempts to put together various theories explaining FDI location decision into a unified framework (Dadzie, 2012). Dunning (1977) eclectic theory provides a plausible explanation of emergence of FDI and the need to include various aspects of economics and to bring several elements of the theory together to draw a dependable and comprehensive argument on reasons which inform location of FDI. The theory identifies three main causes of global activities by multinational enterprises (MNEs) as taking advantage of strategic location, internalization and ownership advantages

commonly referred to as the OLI framework (Zlatkovic, 2016). The theory argues that for a firm to become a multinational enterprise the three conditions must be met. Dunning (1977) argues that a company will follow OLI (ownership, location, internalization) framework when determining where to locate their investments. This paradigm is a dominant lens that gives a framework of identifies determinants of FDI flows and helps to scrutinize why and where MNEs invest abroad.

Eclectic theory argues that for a firm to be able to invest abroad, the firm must be having ownership advantages to be able to face competition from other firms. Some of ownership advantages may include economies of scale, expertise in technology, trademarks, skilled and talented management, unique brands, patent rights and business secretes (Curtis, Rhoades & Griffin, 2013). The theory explains that a MNE would invest in a foreign country to take advantage of things like cheap and unique production technology, enhancing brand royalty and trademark, and monopoly of a particular product marketing skills. These advantages are important because they help the firm offset disadvantages it might face when investing in a foreign country such as dealing costs with foreign administrations (Buettner & Ruf, 2007).

The location factor as advanced in the eclectic paradigm explains that a firm should be able to profitably carry out business in a foreign country. Location advantages includes local advantages which make production cost cheap compared to exporting. Some of these advantages include low tax cost, energy cost, market size labor cost, avoidance of transport cost, exporting cost, and enhancing brand royalty by producing locally productive and institutional factors which are found in a particular country (Bhatt, 2013; OECD, 2013). The theory asserts that, due to location advantages, investors prefer carrying out production in a

given country as opposed to exporting from a foreign nation to that country. These advantages which sometimes are in form of favorable economic policies given by a FDI recipient country makes multinational firms locate production units in these countries (Hunya, 2000). Tavares-Lehmann (2012) argues that locational advantages include provision of tax incentives since tax incentives reduce cost of doing business making a country internationally competitive therefore attracting more FDI.

The third factor in the eclectic theory is the internalization advantages which explains that a business entity would prefer to be in charge of internal operations of a foreign business instead of engaging another local company in the host country to undertake provision of services and take control of operations (Curtis, Rhoades & Griffin, 2013). The theory asserts that multinationals should take advantage of efficiency to reduce cost by operating in the host country as opposed to licensing or joint ventures arrangements. This will also help to safeguard the value of knowledge capital by safeguarding information hence preventing duplication by competitors (OECD, 2008).

The eclectic theory has however been criticized for failing to consider interaction between firms and policy environment. Under the location advantages, the theory fails to outline or suggest what constitute locational advatages. The theory only suggest that any factor can be a locational advantage provided that that factor contribute to the firms profit, this is a weakness inherent in the   theory (Ali, Fiess, & MacDonald ,2010). The theory also ignores the role of management in deciding where to locate a business venture (Devinney, 2002). Also the theory has brought together many variables to a point of losing focus and relevance (Dadzie, 2012). Although Dunning (1991) argues that incorporation of many variables was

inevitable given that the objective of the theory was to integrate various FDI theories into one main theory.

2.2.3 New Economic Geography Theory

It is one the most appropriate models which explains the determinants of FDI location (Lee, 2012). It was developed by (NEG) by Krugman (1991). It holds that business location tends to be influenced by demand for products or by large market, which help them to minimize transportation costs. The theory postulates that locational advantage is a key factor which makes a country attractive and most multinational will seek to invest in a country with locational advantages which are favorable for investments. Further, in support of NEG model, Devereux and Mifflin (2007) posit that tax incentives will have more impact in countries with already established foreign investments compared to countries with fewer or no foreign investments.

The new economic geography theory challenges the key assertion of neoclassical investment theory regarding the importance of taxes in influencing investments. The model posits that lower taxes encourage foreign business entities resulting to increased FDI. Therefore, FDI flow can be determined by geographical location of a country and not necessarily tax incentives advantages, which may be inconsequential. This according to Venables (2005) gives NEG theory a holistic approach to spatial economics that explain movement of FDI. These clattering forces, due to FDI flows generate uneven allocation of economic activities among countries. This leads to emergence of regional disparities, new cities and this eventually brings in international inequalities. The theory demonstrate that easy access to the market create incentives to firms because of reduction in transport costs and as such determines international competitiveness of a country (OECD, 2008).

According to Ottaviano (2003), the power of regional policy will depend on the level to which trade integration has taken place. Therefore there is needto reduce trade barriers inorder for fiscal policies to be effective. Globalization has made cross border trading easy and MNEs are able to sell their goods across bounders. The theory may therefore, not be sufficient in explaining movement of FDI in the advent of globalization and regional community intergrations.

2.2.4 Theory of Tax Competition

Tiebout (1956) developed the theory. Tiebout (1956) argues that provision of different tax rates by various states leads to efficiency by allowing firms and individuals to enjoy different tax rates and eventually choosing which fits them best. The theory explains that some countries will choose to charge low taxes and provide modest common goods, while on the other hand, some will charge high taxes and provide comprehensive public facilities and services. According to the theory, MNEs will decode where they maximize profits and accrue their capital by moving to the countries that best serve their interests. This theory therefore, could be the best to explain the interphase between tax incentives and explain how countries and regions compete for FDI through provision of tax incentives, which reduces cost of investments (Wellisch, 2000).

According to Onyeiwu and Shrestha (2005), theory of tax competition provides a trade off and a good mix between loss of revenue due to tax expenditure on provision of tax incentive and provision of public goods. This is because FDI will want to locate in countries with enhanced public goods provisions and low taxes. Hence, provision of tax incentives may lead to compromising of public goods provisions.

Oates (1972) asserts that the desire to lower taxes due to fiscal competition among countries produces leads to poor local service provision. Low taxes leads to low revenue for the governments, this ultimately affects the capacity of the government to provide better local services. However, in the tax competition literature, there is disagreement on the effect of tax competition. Janeba (2002) opines that tax competition results to low taxes on investments while some studies disagree.

The theory of tax competition however fails to capture the fact that in the international context, it is not easy for foreign investors to move from one state to another looking for favorable tax jurisdictions, there are other restrictions as well. The theory argues in support of tax competition; however, tax competition has led to harmful tax practices in some regions especially in developing countries.

2.2.5 Monopolistic Power Theory

The monopolistic power theory was advanced by Kindleberger (1969). The theory holds that multinational firms could enjoy the monopolistic power benefit in an imperfect market condition as they are majorly progressive in technology has superior managerial skill, they tend to be in the situation to invest in the business opportunity and generate numerous profits (Onyinyechi & Ekwe, 2016). The theory explains that in the name of the interest of the nation, there is unwillingness by the host Government to permit foreign firms, free entry into the nation (Nayak & Choudhury, 2014).

The Kindleberger's (1969) monopolistic power theory describes the several forms of benefits normally enjoyed by multinational firms not enjoyed by the local firms eg intangible assets or specialist knowledge that make them competitive globally. These are

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firm specific advantages (Denisia, 2010). These benefits usually give motive to a firm to invest internationaly to take advantage of them rather than distributing them to rivals in the foreign market. The encouragement of companies become even more if there is a possibility of the firm to make huge monopoly profits (Nayak & Choudhury, 2014).

The monopolistic theory however does not describe the benefit a firm should focus on since apart from monopolistic advantages (Nayak & Choudhury, 2014). In this study, the monopolistic power theory explains that when MNCs engage in FDI they enjoy various benefits including tax incentives offered by the local governments   thereby increasing the MNCs profits.

2.2.6 Product Life Cycle Theory

It is based on   the product and the level of growth in a particular state (Kottaridi, Filippaios & Papanastassiou, 2004). Vernon (1966) conceptualized the model. He suggested three phases of this theory that included the new product, the standardized product and the mature product stages (Almahmood, 2011).

According to the theory, in the first stage, advanced countries will be the place to develop and produce the product, as most of the potential inputs are available, such as the advanced technology, qualified managers and skilled labour. A company invents a new product as a result of a domestic market product requirement in new product stage, (Onyinyechi & Ekwe, 2016). Subsequently, as the good or service picks up in terms of popularity and consumer acceptance in the maturing product stage, its demand rises in both foreign and domestic markets. The company builds facilities manufacturing products overseas to enlarge the capacity of production, and also satisfy the needs of foreign and domestic consumers. Competitions come in when product thrives unopposed in the market (Bhattacharyya, 2001).

The final stage is when the product starts to become fully standardized. At this stage, the production of the standardized products will move foreign states with lower labour costs, such as less developed countries, so that a foreign investor can cheaply produce its product (Almahmood, 2011). The theory explains that during the maturity stage, the well-established production technology creates opportunities for long production runs. However, competition from similar products reduces profits and seems to affect production costs. Consequently, production facilities abroad are sought to ensure lower costs inorder to maintain positive domestic and overseas profit margins (Bhattacharyya, 2001).

2.2.7 Internalization Theory

It argues that multinational enteprises carry out their internal activities with an aim of benefitting from the opportunities to be exploited by them (Onyinyechi & Ekwe, 2016). Buckley and Casson (1976) developed the concept. According to the theory, market failure existence offers motivation for companies to undertake direct investment overseas to take advantage of these benefits. The theory indicates that companies obtain the eagerness and anxiety to make optimal benefits from their major competencies and assets that are intangible (Sooklall & Hoolash, 2016).

The internalization theory states that the creation and accumulation of firm-specific benefits makes it possible to MNCs to make good use of their marketing, technological management and expertise competencies to competently undertake asset management and yield more products that are competitive, but on the basis of behavioral and organizational structure restraints (Almahmood, 2011). So as to keep on being more competitive, the MNC adopts ownership to guard its benefits, making it have the capability to expand across borders objectively to exploit foreign markets (Denisia, 2010). The theory posits that the intervention

of the government and policy influence on MNEs to adopt transactions like government policy towards mergers; transfer pricing; market structure differences between host countries and the capability to engage in contractual transfer of resource (Almahmood, 2011).

2.3 Empirical Literature Review

The segment covers the various researches undertaken in the past relating to the fiscal measres taken by various goverments to lure investments. Studies touching on investment climates and its role in investments decision are reviewed. International competitiveness literature is also covered under this section.

2.3.1 Tax Incentives and Foreign Direct Investment

As argued by neoclassical theory, taxes have impact on returns on capital and should be carefully employed by governments to influence investments location between countries. According to Klemm (2010), many empirical researches carried out on influence of tax breaks on FDI have produced mixed results, some showing positive significant and others negative significant. Olaleye (2016) for instance investigated the influence fiscal measures on FDI in Nigeria. The empirical research used descriptive research design targeting 74 listed manufacturing companies, which were sampled. The study established that FDI in manufacturing sector in Nigeria were greatly influenced by provision of tax incentives.

Yanikkaya and Karaboga (2017) explored the relationship between investment incentives on employment levels, labour productivity in various sectors and capital intensity in the Turkish manufacturing sector. Data from 16 manufacturing firms from 1981 to 2009 was used. Data was analyzed using the system GMM estimation technique to the panel dataset. It was

established that investment incentives had no influence on productivity of labour, employment levels and capital intensity.

Thuita (2017) investigated the influence of tax holiday and capital deductions in attracting and retaining FDI on the Kenyan export-promoting sector (EPZ). Using descriptive survey design and questionnaires. The findings revealed the length of tax holiday was key in the luring and retaining of FDI inflows compared to the extended capital allowances which were offered to the sector. The study made the conclusion that tax incentives should be enhanced so that they can boost the expansion and growth of the EPZ sector in Kenya.

Gebremedhin and Saporna (2016) assessed the influence of tax holiday on investments in Ethiopia through an experimental design, which in the form of a case study. The study sampled 70 construction and manufacturing firms and used both primary data collected via questionnaires. It was found that Tax holidays significantly influenced investment in the construction and manufacturing sectors in Ethiopia. It was established that the period of tax holiday lured investors in Ethiopia.

Sari, Dewi and Sun (2015) carried an investigation in Indonesiato to assess how policies on tax holiday influenced tax collection and investments. It was established that period of tax holiday positively influenced investments and it did not have any adverse effects on tax revenue loses. The study concluded that tax holidays in Indonesia positively enhanced investment activities and enhanced tax revenue growth with the period of the tax holiday.

A research exploring on taxation and FDI in Bangladesh from 2001-2010 was carried out by Ahmed (2015). The study used inflation, GDP and exchange rate as the control variables.

FDI and corporate tax rate were found to be negatively assoiciated . FDI and exchange rate were statistically insignificant in their relationship. Additionally, FDI had a positive and statistically insignificant association with GDP whilst FDI had positive significant association with inflation.

Munongo (2015) investigated the usefulness of fiscal incentives in luring international business in Southern African Development Community (SADC). It was established that fiscal incentives were key in attracting FDI. A study by Lee (2012) found that tax incentive influences location decisions of investors. The study established that by reducing corporate tax and value added tax investors were attracted to invest in Taipei, China and Hong Kong processing trade sector.

Fiscal measures were found to increase FDI in China by an empirical research carried out by Tung and Cho (2000. The study observed before 1991 fiscal measures in China were only offered to joint venture which made more FDI inform of joint ventures to come in comparison with other forms of FDI. The period subsequent to 1991 after offering fiscal measures to all kinds of FDI, showed improved growth in FDI in types of businesses. Hence, the conclusion was fiscal measures were key to investments. However, a study by Cleeve (2008) carried out in Sub Sahara Africa, found that tax allowances and repatriation of earnings were statistically insignificant in attracting FDI in Sub Sahara Africa.

2.3.2 Tax Incentives, International Competitiveness and Foreign Direct Investment

International competitiveness of a fiscal system of a nation is determined by both incoming investment and out going investimates. There should however be a balance between taxes charged and incentives offered to allow accumulation of FDI. Bahri, Nor, Shaari, Nor and Haji (2018) investigated how financial development can influence inflows of FDI in ASEAN. Existance of relationship among real GDP per capital, FDI, consumer price index and financial development was established by the study.

A research in South Africa by Tsaurai (2018) to investigated the influence of inflation on FDI. Using fixed effect model it was established inflation was had insignificant positive effect on investments.. However using pooled OLS, it was found to be negatively stastistically significant. The study then used random effects and inflation negatively but insignificantly influenced FDI.

Geiger (2011) in a survey done to establish Indonesia international competitiveness, found that tax regulations, political instability, inflation, infrastructure inadequacy, corruption and financial access as some of variables affecting Indonesia competitiveness. Using a descriptive research design, Njoroge (2016) investigated the indicators of FDI increase in Kenya. The study targeted 100 manufacturing firms with significant foreign ownership. The study found that trade openness, political risk, exchange rate, market size and corporate governance significantly influenced growth of FDI.

Zlatković (2016) explored whether international competitiveness affected the levels of multinational enterprises in Western Balkan. The study collected secondary data from

Albania, Macedonia, Serbia and Montenegro from 2004 to 2014, which was analyzed using correlation analysis. The finding established that there was FDI inflow had no correlation with international competitiveness.

Fanta and Teshale (2014) carried a study on how growth in exports was affected by the trend and type of tax incentives. Using time series econometric analysis and correlation analysis, the findings revealed that tax incentives had a direct relationship with both export value and export volume but had an inverse relationship with export concentration. The study also revealed that fiscal and financial tax incentives significantly influenced export growth.

Kransdorff (2010) investigated competitiveness of South Africa tax policy using an empirical study. The study found that South Africa tax policy competitiveness compared to those of its FDI rivals affects its attractiveness to foreign investors. The study compared two indexes the UNTCTAD inward FDI potential index where it ranks 72[nd]and inward FDI performance index where it dismally ranked position 103. UNTCTAD inward FDI potential index uses generally accepted FDI determined such as real per capital income, infrastructure capacity, macroeconomic factors, political stability, natural resources availability, and skilled availability leaving out taxation. Therefore, the degree of the difference in the countries FDI potential and its actual FDI performance is attributed to competitiveness of tax policy.

Bhatt (2013) investigated association among exports, foreign business and export growth in Vietnam. Association between exports, FDI and GDP existed. Fischer (2007) also carried out an assessment of international price competitiveness amongst European monetary union (EMU) countries. The study employed three simple measures of international price

competitiveness, which included the relative and absolute purchasing power parity and productivity for EMU countries. The study found that German economy competitiveness was being improved by all the three factors.

In their study, Majeed and Ahmad (2007) assessed the connection between exports and investment in 49 countries from 1970-2004. The findings revealed positive connection between exports and FDI. Anastassopoulos (2007) investigated whether international competitiveness of a country wss connected with FDI inflows in European Union (EU)-15 members countries between 2003 and 2006. The study found varied response of FDI toward the two region of EU-South Member Countries (SMCs) and North Member Countries (NMCs). The results revealed that governments played a greater role in pushing for international competitiveness in SMCs than in the NMCs leading to more FDI in SMCs.

Aldaba (2006) studied the effects of investment incentives programs instituted by a country to attract foreign investors and foreign direct inflows. A comparative investigation of the Philippines and other countries within the Asian region was undertaken. The study factored variables like cost of doing business, the level of competitiveness and availability of infrastructure. The findings established that the absence of key factors like economic growth, tax incentives, and political climate alone did not have a substantial effect on FDI. Zhang (2005) looked at association of Foreign investments inflows and export performance. It was established FDI positively influenced export performance in China. A study by Sharma (2000) done in India revealed that FDI did not influence exports.

2.3.3 Tax Incentives, Investment Climate and Foreign Direct Investment

Besides tax incentives, another major determinant of FDI flows is investment climate (Kinda, 2010). Favorable investment climate is characterized by standards of good governance requirements together with the availability of basic Infrastructure, such as cheap reliable electricity, good roads, and effective and efficient transport system as well as communication means. Good governance is characterized by the stability of legal system on property rights depth of political democracy and public accountability. These conditions are essential for ensuring sustained FDI flows, which spur economic growth by creating jobs to the locals besides other benefits such as technological transfers. Studies on investment climate, tax incentives and FDI have produced mixed results..

A study by Pradhan, Arvin, Hall and Nail (2017) using a model referred to as panel vector error correction carried in 19 Eurozones countries starting 1988 to 2013 discovered that foreign investments is influenced by trade openness. A study by Bayar and Alakbarov (2016) investigated how corruption and FDI are linked. Using the test of Wester Lund Durbin Hausman cointegration for the period between 2002 to 2014 established that corruption was not associated with foreign investment.

Osabutey and Okoro (2015) using 12 political indicators carried a study in Nigeria communication sector between 1980 and 2007. Political risk was found to be associated with business investment. Corruption was found to explain about two-third of foreign direct investments inflows. Shah (2014) assessed the importance of availability of infrastructure in attracting FDI. It was found that infrastructure and market size influences location of FDI.

Khan and Akbar (2013) in 94 countries between 1986 and 2009 carried a research on influence of political risk toward investments and established a negative connection. Castro and Nunes (2013) explored empirically how market size, labour cost, openness in trade, and economic stability are connected to FDI inflows. Market size, wages, taxes and openness to trade were found to play a statically significant role. Alemu (2012) carried out a study in 16 Asian states for 15 years and found that corruption influences investments. Where corruption levels are still high yet the countries are registering significant FDI inflows, the FDI flow could even increase two fold where they able to reduce the existing level of corruption.

Mughal and Akram (2011) carried out a study from 1984 to 2008 and found that market size attracted investments in Pakistan. However, a study by Coleman and Tetty (2008) in Ghana covering period 1970 to 2002 using time series data found that market size did not matter in influencing investment location. Krifa-Schneider and Matei (2010) used fixed effects and dynamic panel to analyse data from 33 transition and developing economies from 1996 to 2008. The results revealed that political risk influences business location. Kim (2010) found that economies enjoying political rights recorded more investments while economies with high corruption levels and low democracy level recorded less FDI inflows.

A study by Babatunde (2011) in Africa countries examined relationship of infrastructure, FDI, growth and trade openness. Using panel data it was observed that trade openness and infrastructural development influences FDI leading to sustainable development. However, Tsaurai (2015) using Autoregressive distributed lag found that trade openness does not influence location of FDI in Zimbabwe. In addition, Anitha (2012) found that trade openness played an insignificant role in attracting investments in India

A study of 77 developing economies   using firm-level data on effect of investment climate on FDI was carried out by Kinda (2010).The study found that constraints associated with investment climate negatively hinder FDI in developing countries. Some of the noted constraints were poor infrastructure, financing limitations, and weak institutions (e.g. judicial system) in developing countries. Majeed and Ahmad (2009) in a study done in Pakistan to determine characteristics of a host country that influences FDI flow, found that enabling environment to be essential to investors.

Sekkat and Veganzones-Varoudakis (2007) studied how political stability, infrastructure, sound economic and openness affects investments. It was revealed that investers were influenced to invest in manufacturing sector as compared to othe sectors by the above factors. Busse and Hefeker (2007) investigated   links between political threat and foreign investments globally from 1984 to 2003 employing various econometric techniques. The study found that twelve indicators of political risks were significant in determining FDI inflows.

Quazi (2007) carried out an empirical research in nine Latin America countries. The study found that investment climate significantly boosted FDI. In particular, it was observed that improved infrastructure and high degree of trade openness increased FDI flow, while lack of economic freedom discouraged FDI inflow. Rani and Batool (2016) found that political instability does not influence in any big way economic development in the short run in Pakistan.

2.3.4 Tax Incentives, International Competitiveness, Investment Climate and Foreign Direct Investment

Several factors contribute to the decision by investors to invest in internationally. Governments world over seek to grow their economies using a mixture of approaches, which include but not limited to fiscal incentives and improvement of investment environment to attract FDI flows. Most studies on the influences of fiscal measures on FDI ignore the effect of investment climate and international competitiveness of a country. For instance, Klemm and Parys (2012) investigated influence of fiscal incentives in 40 countries around the world from 1985 to 2004. The study employed panel data spatial econometric techniques and established that tax holidays and CIT rates were used as tools for tax competition. Moreover, the study used the dynamic panel econometrics, they found that tax holidays help in attracting foreign direct investment but are not effective in boosting economic growth.

A study by Cleeve (2008) found that tax holidays when employed lures foreign investments. He carried out a research on success of fiscal measures in bringing investments in Sub-Sahara African region between 1990 and 2000. The study found that tax holidays to be the best among all other fiscal measures. Additionally, Buettner and Ruf (2007) research found that market size, tax incentives and labor cost have significant effects on German multinationals, cross border investments decisions. The study used firm level panel data provided by the German Bundesbank from 1996 to 2001

2.4 Summary of Empirical Literature and Research Gaps

The section summarizes the empirical and theoretical supposition of the relationship between tax incentives and FDI as well as the intervening role of international competitiveness and moderating role of investment climate in that relationship. The use of tax incentive to attract investments has been increasing overtime espicialy in the wake of regional integrations. Due to regional integration, countries in the same economic bloc are having similar investment climate, making tax incentives a critical factor to be considered by investors on deciding where to locate their businesses (Simovic & Zaja, 2010).

There has been a different view between policy makers and investors regarding effect of fiscal measureson investments. While companies view tax incentive to have weak influence on consideration of where to locate business, government bureaucrats are of the view that fiscal policies are powerful tools in influencing FDI location (Morisset & Pirnia 2001). Although it can be argued that these incentives help to attract FDI what is not clear is whether the cost incurred in giving the incentives is fully compensated by the benefits accruing from these FDI in the host country. Tax incentives have also led to the race to the bottom especially among members of the same regional bloc, where countries compete amongst themselves to offer better fiscal incentives. This debate therefore remains inconclusive. Despite IMF and World Bank discouraging developing counties from giving tax incentive to attract FDI, globally the practice has continued.

The key theories used to study in this research included the neoclassical investment theory (Jorgenson, 1963), the eclectic theory (Dunning, 1977) the new economic geography theory (Krugman, 1991) and theory of tax competition (Tiebout, 1956). The other theories include

the monopolistic power theory (Kindleberger, 1969) product life cycle theory and the internalization theory. Methodological, contextual, theoretical as wellas conceptual research gaps emerged from the analysis of the previous studies carried out in the thematic area.

The empirical review shows inconsistent results and there seem not to be generally acceptable determinants of FDI. While some studies found tax incentives statistically significant determinant of FDI others found that, tax incentives do not play any role as far as FDI location decisions are concerned. Those which show importance of tax incentives in attracting investments were: Thuita (2017); Olaleye (2016); Gebremedhin and Saporna (2016); Sari, Dewi and Sun (2015); Munongo (2015) and Tung and Cho (2000), while those showing statistically insignificant effects include: Njoroge (2016); Peters and Kiabel (2015); Tuomi (2011) and Chai and Goyal(2008). The inconsistency on the findings from different studies presents a conceptual gap. Another conceptual gap noted is the lack of factoring moderating and intervening variables in their research models. Introduction of moderating variables such as market size, corruption, political stability and intervening variables such as export prices, consumer prices and export growth, makes the results robust results. The contextual gap arises from the fact that studies carried out in this area focuses on on the individual countries or a particular sector within a country as opposed to this study, which focused on EAC partner states.

Methodologically, most of the previous studies in this area have used simple regression analysis and some using interviews for instance: Thuita (2017); Njoroge (2016); Ahmed (2015) and Effiok, Tapang and Eton (2013) while the current study has used panel secondary data. In addition, most previous studies ignored carrying out diagnostic tests

while this study conducted various diagnostic test to ensure that none of the regression analysis assumptions were violated by the data collected. The diagnostic tests conducted in this study are normality test, multicollinearity test, panel level stationarity, test for autocorrelation also referred to as serial correlation test and the test for heteroscedasticity. Table 2.1 below shows a summary of the empirical studies reviewed and research gaps identified.

Table 2.1: Summary of Empirical Literature and Research Gaps

Researcher	Context	Focus of Study	Methodology	Findings	Research Gaps	Focus of Current Study
Thuita (2017)	Kenya	Influence of tax holiday and capital deductions in attracting and retaining FDI in the Kenyan export-promoting sector (EPZ).	Descriptive survey design and questionnaires	Provision of tax holidays influences the location and retention of FDI.	The use cross sectional survey in study ignoring time aspect of the data. The study failed to consider factors that can intervene or moderate on the relationship between tax incentives and FDI.	The current study used panel data model therefore taking care of time aspect of the data. The current study has considered other intervening and moderating factors on the relationship between tax incentives and FDI.
Yanikkaya and Karaboga (2017)	Turkey	Relationship between investment incentives on employment levels, labour productivity, capital intensity and total factor production	System GMM estimation technique	Investment incentives did not have a positive effect on employment levels, labour productivity, capital intensity and total factor production	The study did not incorporate FDI as a variable and used the generalized moments method (GMM) for analysis.	The current study incorporated FDI as the independent variable and used a panel data methodology.
Gebremedhin and Saporna (2016)	Ethiopia	Influence of tax holiday on investments in Ethiopia.	ANOVA model and the t distribution	Tax holidays significantly influenced investment in the construction and manufacturing sectors in Ethiopia.	The study used primary data collected using questionnaires. The study also used non parametric model to analyze data.	The current study used panel data model therefore taking care of time aspect of the data and made use of parametric models to analyze the data.
Njoroge, (2016)	Kenya	Factors accounting for FDI in Kenya	Multiple regression model	Trade openness, political risk, exchange rate, market size and corporate governance significantly influenced FDI	Conceptual gap because did not consider the effect of tax incentives on FDI.	The current study considers tax incentive and FDI.
Zlatković (2016)	Western Balkan Countries	Influence of international competitiveness	Correlation analysis	No correlation between international competitiveness indicators and FDI inflows.	The study did not incorporate tax incentives as a variable and focused on	The current study incorporated tax incentives to assess the intervening effect of

Researcher	Context	Focus of Study	Methodology	Findings	Research Gaps	Focus of Current Study
		increased FDI inflows.			competitiveness and FDI.	international competiveness on FDI and used a panel data methodology to analyze the data.
Olaleye (2016)	Nigeria	Impact of tax incentives on FDI among listed manufacturing firms in Nigeria	Descriptive research design	Tax incentives had a significant positive effect on FDI among listed manufacturing firms in Nigeria	The study used firm level data and considered FDI inflows in the manufacturing sector.	The current study carried out cross-country analysis and considered total FDI inflows in each country.
Munongo (2015)	Southern African Development Community (SADC).	The effectiveness of tax incentives in influencing FDI: in Southern African Development Community	Panel data model	Tax incentives were important in FDI attraction in the SADC countries	The intervening effect of international competiveness and moderating effect on investment climate on FDI was not assessed.	This study incorporated international competiveness and investment climate as intervening and moderating variables respectively.
Sari, Dewi and Sun (2015)	Indonesia	Effect of tax holiday policies on tax revenue generation and foreign direct investments.	Theoretical assessment of relevant rules and regulations.	Tax holidays enhanced both investment activities and enhanced tax revenue growth in Indonesia	Tax holidays was the only tax incentive indicator considered in the study.	The current study incorporated investment allowance and period of period of losses carried forward as tax incentives indicators.
Ahmed (2015)	Bangladesh	Relationship between taxation and FDI.	Regression, correlation and descriptive statistics.	A negative and significant relationship between FDI and the corporate tax rate.	Corporate tax rate was the only indicator of tax incentives .	This study incorporated tax holiday, investment allowances and period of losses carried forward as tax incentives indicators.
Fanta and Teshale (2014)	Ethiopia	How growth in exports was affected by the trend and type	Time series econometric analysis and correlation analysis.	Tax incentives had a direct relationship with export value and export volume but had an inverse relationship with	The study used a time series model focusing on a single country.	The current study has used panel data model and focused on several countries.

Researcher	Context	Focus of Study	Methodology	Findings	Research Gaps	Focus of Current Study
		of tax incentives		export concentration. Further, fiscal and financial tax incentives significantly influenced export growth both on the long and short run.		
Castro and Nunes (2013)	Portugal	Effect of market size, labour cost, openness, trade, and economic stability on FDI inflows.	Static and dynamic panel data approach comprising of the fixed effects and GMM estimator.	Market size and openness, trade, taxes and wages were significant factors in explaining FDI flows into Portugal.	The study focused on investment climate indicators and their effect on FDI inflows.	This study incorporated and tested the moderating effect of investment climate indicators on tax incentives and FDI inflows.
Tuomi (2011)	South Africa	The effect investment climate and tax incentives on FDI location decision in South Africa.	Microdata and firm interviews	Fiscal incentives play a minor role in the investment location decision for many firms.	Did not consider the effect of intervening variables. In addition, the study used primary data presenting a methodological gap with the current study.	The current study used secondary data and employed international competitiveness as the intervening variable.
Kinda (2010)	Developing countries.	Relationship between FDI investment environment	Firm level data across 77 developing countries	Limitation associated with investment climate hinders FDI	Did not consider tax incentives as the independent variable and used firm level data	The study uses tax incentives as the independent variable and employed counties macro level data.
Chai and Goyal (2008)	Eastern Caribbean	Effect of tax breaks on FDI in the Eastern Caribbean.	Firm level survey and regression analysis.	Tax incentives has insignificant impact on FDI.	The study presents a methodological gap since it used firm level survey.	The current study made use of longitudinal design employing panel data analysis.
Cleeve (2008)	Sub-Sahara Africa	Effectiveness of fiscal policy in attracting FDI in 16 Sub-Sahara Africa.	Pooled data cross sectional analysis	Tax holidays was statistically significant while tax concessions and repatriation of profits were statistically insignificant in attracting FDI in Sub Sahara Africa.	There was a methodological gap since the study used pooled cross sectional data analysis.	The current study used longitudinal panel data analysis.

Researcher	Context	Focus of Study	Methodology	Findings	Research Gaps	Focus of Current Study
Demirhan and Masca (2008)	38 Developing Countries	What influences FDI in Developing	A cross-sectional analysis	Tax rate presented a negative sign and was statistically significant.	Methodological gap as the study used cross-sectional analysis	This study used a longitudinal research and panel data methodology to analysis data.
Quazi (2007)	Latin America	The relationship between FDI and investment climate	Panel regression models	FDI inflows were enhanced by good investment climate.	The study did not consider tax incentives as the independent variable hence conceptual gap. In addition, the study presents a contextual gap since it was carried out in Latin America.	The current study used tax incentives as the independent variable and bring in investment climate a s moderating variable. The study was carried in EAC.
Buettner and Ruf (2007)	Germany	Effect of tax incentives on the decision of Germany multinationals to have direct investment abroad.	Firm level panel data	Market size, tax incentives and labor cost had a significant effect on Germany multinationals decision to carry out cross border investments.	This study used firm level data and focused on only one country multinational firms.	The current country carried out cross-country analysis and considered total FDI inflows in a country. The current study uses counties macro-data.
Aldaba (2006)	Philippines and other countries within the Asian region	Effects of investment incentives programs instituted by a country to attract foreign investors and foreign direct inflows.	Comparative analysis	The absence of key factors like economic growth, tax incentives, political climate alone did not have a substantial impact on investment decision by foreign investors and foreign direct investments.	The study used comparative analysis and assessed only the effect of investment climate on FDI inflows.	This study incorporated tax incentives as the independent variable and international competitiveness on FDI.

Source: Researcher (2019)

2.5 Conceptual Framework

The literature reviewed, suggests that provision of fiscal measures influences location decision of multinational enterprises. Tax incentives makes a country internationally competitive compared to its FDI rivals. A country, which is internationally competitive, will be more attractive to FDI than its rivals will (Kransdorff, 2010). International competitiveness of a country is influenced by taxation. Making international competitiveness a mediating variable in the relation between taxation and investment.

Investment climate moderates the relationship between tax incentive and FDI. When the investment climate is right the relationship is enhanced while poor investment climate makes provision of tax incentives ineffective. According to James (2013) although tax incentives help in encouraging FDI, the robustness is eight times more in a state with proper investment climate compared to a country with poor investment clomate. Tax incentive will be less effective in boosting FDI in countries with poor investment climate (Brodzka, 2013). There will be a joint effect of tax incentives, international competitiveness and investment climate in influencing FDI.

Intervening variable

International Competitiveness
- Export prices
- Consumer prices
- Export growth

H_{01}

H_{02}

Tax Incentives
- Tax holidays
- Investments allowances
- Period of losses carried forward

H_{04}

Foreign direct investment inflows into a partner state in US dollars

Independent variable

Investment Climate
- Electricity supply
- Political stability
- Corruption
- Trade openness

Moderating variable

Dependent variable

H_{03}

Figure 2.1: Conceptual Framework

Source: Researcher (2019)

2.6 Research Hypotheses

The study aimed at establishing the nature of the relationship between tax incentives and foreign direct investment. Secondly, determining the intermediating effect of international competitiveness on the relationship between tax incentives and foreign direct investment. Thirdly, finding the moderating effect of investment climate on the relationship between tax incentives and foreign direct investment. The fourth hypothesis was to test the joint effect of tax incentives, international competitiveness, and investment climate on foreign direct investment in East Africa community partner states.

The study tested the following null hypothesis:

H_{01}: The relationship between tax incentives and FDI in EAC partner states is not significant.

H_{02}: The intervening effect of international competitiveness on the relationship between tax incentives and FDI in EAC partner states is not significant.

H_{03}: The moderating effect of investment climate on the relationship between tax incentives and FDI in EAC partner states is not significant.

H_{04}: The joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states is not significant.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter covers the methodology adopted in the study. The chapter is divided into various sections: research philosophy, research design, population of the study, data collection methods, diagnostic tests, operationalization of and data analysis techniques.

3.2 Research Philosophy

Is the development of research framework, research know-how and research nature (Saunders, Lewis & Thornhill, 2007). Positivism and phenomenology are the two main philosophies in research. Bryman and Bell (2011) describe positivism as an epistemological position that advances the use of natural science methodologies in social sciences. Cooper and Schindler (2006) argue that under positivism approach, scientists evaluate the social world objectively as opposed to subjectively. Positivism is founded on organized procedure of measurement of social phenomena in order to be able make generalization. Under positivism the research is supposed to remove him or herself from what is being studied and measurement should be objective and not subjective (Christensen, Johnson & Turner, 2015).

Phenomenologists are concerned with what things mean, rather than with identifying and measuring phenomena. Bryman and Bell (2011) argue that phenomenology is concerned with how individuals interpret the world around them and how researchers should bracket out prejudices in their grasp of the world. This study was anchored on the positivist philosophy.

3.3   Research Design

A longitudinal also refered to as panel design was adopted. According to Hsiao (2005), a panel data is a data comprising of time series observations for different individual units. Therefore, this was the appropriate technique since the study involved collection of data on EAC partner states over a period of time. Several studies have used this design (Revilla, 2016; Torres-Reyna, 2007). One of the advantages of a longitudinal study is that developments in the target population over time can be detected. The fact that longitudinal study extends beyond a single moment in time enables establishment of sequences of events.

3.4 Population of the Study

Population is been defined by Cooper and Schindler (2006) as a group of entities with common features that follow a given description. Kothari (2004) defines population as all objects of inquiry. According to Lavrakas (2008), population refers to a finite gathering of individual elements. The study was carried out in the five states in the East Africa Community: Burundi, Tanzania, Rwanda, Kenya and Uganda. South Sudan was excluded because of lack of data. The unit of analysis was the individual partner state. The EAC was ranked the best region in Africa in 2014 in terms of foreign direct investment (UNCTAD, 2015).

3.5 Data Collection

Data collection is an orderly approach of assembling information from various sources to have thorough, precise and relevant picture of research problem (Burns & Grove, 2010). To maintain the integrity of the research, accurate data is paramount. Social scientists use various strategies to collecting data. The main methods of data collection are primary and

secondary methods. Primary data is that data collected for the first time hence original in nature, while secondary data is data which is already available, having been collected by someone else initially.

This study employed secondary data for a period of 16 years, i.e. from 2002 to 2017. This duration was chosen since the EAC issued most tax incentives in this period, and it started attracting noticeable FDI inflows as from 2002. Kothari (2004) argues that before using secondary data researchers must make sure the data is adequate, suitable, reliable and from authentic sources. The main sources of the data were: Ernst and Young worldwide tax database, UNCTD, EAC secretariat; World/African Development Indicators of the World Bank, World Resource Institute, tax and finance Acts of the individual countries, Partner states' tax Authorities and OECD. Klemm and Parys (2012) used data published by Price Waterhouse worldwide summaries of corporate taxes while Munongo (2015) relied heavily on data published by Ernest and Young worldwide tax data. A data collection form which was used to record data for this study is attached in appendix 1.

3.6 Diagnostic Tests

Several data diagnostics test were undertaken to test the assumption of the panel regression models used in the study. Diagnostic tests were carried out to ensure that none of the regression analysis assumptions were violated by the data collected. The study undertook multicollinearity test, panel unit root test, Hausman test, poolability test, autocorrelation, heteroscedasticity and normality tests. The next subsection presents the discussion of each of these tests.

3.6.1 Multicollinearity Test

The linear regression model assumes the absence of multicollinearity among the explanatory variables. One of key objective of regression analysis is to isolate the relationship of each

independent variable with dependent variable when holding the other independent variables constant. This cannot be possible if independent variables are correlated to each other meaning a shift in an independent variable will cause a change on another independent variable. The problem is called multicollinearity and it leads to a situation where the model cannot be used to estimate the individual relationship of each independent variable with the dependent variable (Newbert, 2008).

To test for multicollinearity the study used the variance inflation factors (VIF). The study considered a VIF value greater than 5 as an indication of multicollinearity problem, which was addressed by transforming or dropping the variables which causes severe multicollinearity. Transforming or dropping of the variables was considered since the variables that exhibited multicollinearity had a strong linear relationship with other independent variables and hence they were creating an unnecessary duplication of measurement for the same latent constructs.

3.6.2 Panel Unit Root

Stationarity is an assumption made by all time series models. Stationarity means that the characteristics (variance, means etc) of the data will remain constant overtime (Mahadeva & Robinson, 2004). Non-stationary in time series data will lead to spurious regression (Baltagi, 2005). The study tested for panel unit root using the Levin-Liu- Chu (2002) test. Since Levin-Liu- Chu (2002) tests applies only in balanced panel, the study also utilized Pesaran's simple panel unit root test in cases of unbalanced panel (Breitung & Pesaran, 2005).

3.6.3 Hausman Test

The panel data methodology comprises of fixed effects model and the random effect. To choose between fixed and random effects model, Hausman test is employed (Hausman, 1978). The null hypothesis of Hausman test is that the data fits random effects model against alternative hypothesis that states that the data fits fixed effects model. For Hausman specification test to be undertaken on the specific panel data regression the data must satisfy all the assumptions of the regression model. This study utilized Hausman test to choice between fixed and random effects model.

3.6.4 Poolability Test

Poolability test is conducted in order to test whether the data has panel effects. Breusch-Pagan Lagrange multiplier test is utilized in this study to help in deciding whether to use random effects model or pooled OLS regression (Breusch & Pagan, 1980). The null hypothesis of Breusch-Pagan Lagrange multiplier is that the data fits random effects model against an alternative hypothesis that the data fits pooled OLS model. For Breusch-Pagan Lagrange multiplier test to be undertaken on the specific panel data regression the data must satisfy all the assumptions of the regression model. This study utilized Breusch-Pagan Lagrange multiplier test to choose between random effects model and pooled OLS.

3.6.5 Autocorrelation Test

Autocorrelation or serial correlation is a situation where observations are similar due to time lag between them. Presence of serial correlation makes OLS to be BLUE and can result to rejection of null hypothesis instead of not rejecting it (Baltagi, 2005). To assess serial, the

study used the Wooldridge test for autocorrelation in panel data (Wooldridge, 2002). To treat for autocorrelation, the study used robust standard errors.

3.6.6 Heteroscedasticity

One of the assumption of classical linear regression is Homoscedasticity implying that the variance of the error term is constant. The case where variance of the error term changes across the data is referred to as heteroscedasticity (Belsley, Kuh & Welsch, 1980). Heteroscedasticity inflates the standard errors of regression coefficients thereby making it more probable to commit a type two error in hypothesis testing, i.e. failure to reject a wrongful null hypothesis (Garson, 2012). To assess for heteroscedasticity the study utilized Breusch-Pagan / Cook-Weisberg test for heteroscedasticity.

3.6.7 Test for Normality

Linear regression model assumes that the data is normally distributed. Normality is based on the shape of normal distribution and gives the researcher knowledge about what values to expect. Variables that are not normally distributed can distort relationships and significance tests (Stevens, 2009). However, in regression analysis, the assumption of error term been normally distributed in critical (Greene 2012). This study used the graphical method to test for normality of the error term. Specifically, the study used histogram with normality line to test whether the error term is normally distributed.

3.7 Operationalization of Study Variables

The variables of this study included tax incentives, international competitiveness, investment climate and FDI. The construct under this study were operationalized as follows: tax incentives was the independent variable while FDI was the dependent variable. International

competitiveness mediated the relationship between tax incentives and FDI while investment climate moderated the relationship between tax incentives and FDI. To measure the dependent variable (FDI) the study used the ratio of FDI inflow to the gross domestic product (GDP) per country 'c' at time "t' as advocated by Billington (1999).

The indicators of tax incentives were tax holidays, investment incentives and the period of period of losses carried forward. Tax holiday was measured using the maximum number of years per countries as used by various authors among the Munongo (2015) & Klemm and Parys (2012). Investment allowances were the second indicator for tax incentives and in most countries, investment allowances are given in different rates for different economic sectors. In that case, multinational firms who are the major contributors of FDI, invest in different sectors including manufacturing, tourism, farming, tourism, technology companies among others. Hence, the rate of investment allowance was determined by averaging all the investment allowances or credits offered to different sectors by a specific country in a specific year. The period of losses carried forward was determined by the number of years the loss could be carried forward with a maximum of 10 years being undertaken for countries whom the period of losses carried forward is indefinite as advocated by Munongo (2015).

International competitiveness was proxied by export prices measured using the log of export unit price index, consumer prices measured using the log of consumer price index and export growth measured using the export growth ratio which was the difference between exports at time 't' and exports at time 't-1' divided by exports at time 't-1' as conceptualized by Swagel (2012).

Investment climate was proxied using five indicators among them market size which was determined through the log of gross domestic product, electricity supply was measured as a percentage of population as advocated for by Ogunjimi and Amune (2017). Corruption as an indicator of investment climate was measured using ICRG corruption index (percentile rank) while political stability was measured using world governance index (WGI) political stability and absence of violence index (percentile rank) both provided by the World Bank. Finally, trade openness was measured through the ratio of imports and exports to total GDP as advanced by Shah (2014) and Cleeves (2008).

Table 3.1: Operationalization of Research Variables and Measurement

Variable	Operational Indicators	Operational Definitions	Supporting Literature	Measurement
Tax Incentive	Tax Holiday	Exemption of corporate income tax payment for a specified period of time	Munongo (2015), Klemm and Parys (2012), Ernst and Young (2017)	The length of the tax holiday. Assume the maximum length/period
	Investment allowances	Deduction of qualifying capital allowances	Klemm and Parys (2012), Ernst and Young (2017)	Average rate investment allowances offered in various economic sectors per annum per country
	Period of losses carried forward	Allowable deductions in the year in which they arise and in the following specified number of years of income.	Morisset and Pirnia (2001), Munongo (2015), Ernst and Young (2017)	Maximum number of years granted for a loss carried forward
International Competitiveness	Export prices	Value of exported goods and services	Knoll (2012), Swagel, (2012)	Log of export unit value index
	Consumer prices	Cost of consumer goods & services	Swagel (2012), Bolnick, (2004)	Log of the Consumer price index(CPI)
	Export growth	Reflection of changes in export competitiveness	Athanasoglou, Backinezos and Georgiou, (2010)	Export growth ratio
Investment Climate	Market size	Market value of goods and services	Shah(2014), Mughal and Akram(2011), Cleeves (2008)	Log of real GDP
	Electricity supply	Access to electricity	Ogunjimi and Amune (2017). Alarm (2013) Estache and Garsous (2012)	Access to electricity as a percentage of population
	Political stability	Government stability	Klemm and Parys (2012), World Bank (2017)	WGI political stability & lack of violence index (percentile rank)
	Corruption	Public accountability	Ali, Fiess and MacDonald (2010), World Bank (2017)	ICRG corruption index (percentile rank)
	Trade Openness	Extend to which country trades with the outside world	Shah (2014), Cleeves (2008)	Export plus Imports Divided by real GDP
FDI	Value of FDI Inflows	Value of Foreign investment	IEA (2012), Ahmed (2015).	FDI inflows to real GDP per country

Source: Researcher (2019)

3.8 Data Analysis

The data was analyzed using inferential and descriptive statistics aided by STATA version 15. Descriptive statistics were used to summarize the data into meaningful distribution of scores using the mean, standard deviation, maximum and minimum values among measures of central tendency. Inferential statistics entailed the Pooled OLS regression and correlation analysis. Pooled OLS regression analysis was conducted to establish the relationship between tax incentives and FDI in all five East Africa partner states for years 2002 to 2017. The data was found not to have any panel effects hence, the choice of Pooled OLS regression analysis as advocated by Greene (2012). Correlation analysis was used to determine the nature and the strength of the relationship between the study variable. Table 3.2 shows a summary of research objectives and analytical models used.

3.8.1 Empirical Model for testing hypothesis One: The relationship between tax incentives and FDI in EAC partner states is not significant.

The aim of objective one was to determine the relationship between tax incentives and foreign direct investments in East Africa Community partner states. The equation to test this relationship was modelled as:

Pooled OLS regression analysis

$$FDI_{it} = \beta_O + \beta_1 TH_{it} + \beta_2 IA_{it} + \beta_3 LF_{it} + \varepsilon$$

Where: FDI=Foreign Direct Investment in country (i) at time (t)

TH_{it}= Tax holiday in country (i) at time (t)

IA_{it}= Investment Allowance in country (i) at time (t)

LF_{it}= Losses carried forward in country (i) at time (t)

β_1, β_2 and β_3=Regression coefficients

$\beta_O=$ intercept

$t =$ time period

$\varepsilon=$ Error term

3.8.2 Empirical Models for testing hypothesis Two: The aim of objective was to assess the intervening effect of international competitiveness on the relationship between tax incentives and FDI in EAC Partner states

3.8.2.1 Intervening effects of export prices on the relationship between tax incentives and FDI in EAC Partner states

Step 1:

TI predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 2:

TI predicts EP.

$$EP_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 3:

EP predicts FDI

$$FDI_{it} = \beta_O + \beta_1 EP_{it} + \varepsilon$$

Step 4:

TI and EP predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 EP_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives and EP denotes export

prices

3.8.2.2 Intervening effects of consumer prices on the relationship between tax incentives and FDI in EAC Partner states

Step 1:

TI predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 2:

TI predicts CP.

$$CP_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 3:

CP predicts FDI

$$FDI_{it} = \beta_O + \beta_1 CP_{it} + \varepsilon$$

Step 4:

TI and CP predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 CP_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives and CP denotes consumer

prices

3.8.2.3 Intervening effects of export growth on the relationship between tax incentives and FDI in EAC Partner states

Step 1:

TI predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 2:

TI predicts EG.

$$EG_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Step 3:

EG predicts FDI

$$FDI_{it} = \beta_O + \beta_1 EG_{it} + \varepsilon$$

Step 4:

TI and EG predicts FDI.

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 EG_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment; TI denotes tax incentives and EG denotes export growth

3.8.3 Empirical Models for testing hypothesis Three: Moderating effect of Investment climate on the relationship tax incentives and FDI in EAC Partner states.

3.8.3.1 Moderating effect of Market size on the Relationship between tax incentives and FDI

Unmoderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Moderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 MS_{it} + \beta_3 (TI * MS)_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives, MS denotes market size and (TI*MS) is the interaction between tax incentives and market size.

3.8.3.2 Moderating effect Supply of electricity on the relationship between tax incentives and FDI

Unmoderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Moderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 EA_{it} + \beta_3 (TI * EA)_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives, EA denotes electricity

access and (TI*EA) is the interaction between tax incentives and electricity access.

3.8.3.3 Moderating effect of political stability on the relationship between tax incentives and FDI

Unmoderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Moderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 PS_{it} + \beta_3 (TI * PS)_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives, PS denotes political

stability and (TI*PS) is the interaction between tax incentives and political stability.

3.8.3.4 Moderating effect of corruption on the relationship between tax incentives and FDI

Unmoderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Moderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 C_{it} + \beta_3 (TI * C)_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives, C denotes corruption and

(TI*C) is the interaction between tax incentives and corruption.

3.8.3.5 Moderating effect of trade openness on the relationship between tax incentives and FDI

Unmoderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \varepsilon$$

Moderated:

$$FDI_{it} = \beta_O + \beta_1 TI_{it} + \beta_2 TO_{it} + \beta_3 (TI * TO)_{it} + \varepsilon$$

Where;

FDI denotes foreign direct investment, TI denotes tax incentives, TO denotes trade openness

and (TI*TO) is the interaction between tax incentives and trade openness.

3.8.4 Empirical Model for testing hypothesis Four: The aim of objective four was establish the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states.

Pooled OLS Regression Model:

$$FDI_{it} = \beta_O + \beta_1 TH_{it} + \beta_2 IA_{it} + \beta_3 LF_{it} + \beta_4 EI_{it} + \beta_5 CP_{it} + \beta_6 EG_{it} + \beta_7 ES_{it} + \beta_8 PS_{it}$$
$$+ \beta_9 CN_{it} + \beta_{10} TO_{it} + \beta_{11} MS_{it} + \varepsilon$$

Where: FDI=Foreign Direct Investment in country (i) at time (t)

TH_{it}= Tax holiday

IA_{it}= Investment Allowance

LF_{it}= Period of losses carried forward

EI_{it}= Export Index

CP_{it}= Consumer Prices

EG_{it}= Export Growth

ES_{it}= Electricity supply

PS_{it}= Political Stability

CN_{it}= Corruption

TO_{it}= Trade Openness

MS_{it}= Market Size

β's =Regression coefficients

β_O= intercept

t = time period

ε= Error term

Table 3.2: Objectives, Hypothesis, Analytical Models and Interpretation

Objective	Hypothesis	Analytical Model	Interpretation of Results
To determine the relationship between tax incentives and FDI in EAC Partner states	H_1:The relationship between tax incentives and FDI in EAC partner states is not significant	Pooled OLS regression analysis $$FDI_{it} = \beta_O + \beta_1 TH_{it} + \beta_2 IA_{it} + \beta_3 LF_{it} + \varepsilon$$ Where: FDI=Foreign Direct Investment in country (i) at time (t) TH_{it}= Tax holiday in country (i) at time (t) IA_{it}= Investment Allowance in country (i) at time (t) LF_{it}= Losses carried foward in country (i) at time (t) β_1, β_2 and β_3=Regression coefficients β_O= intercept t = time period ε= Error term	If the P-value of the regression coefficient(s) are less than 0.10 then the regression coefficients was significant otherwise it was insignificant. If significant then the null hypothesis would be rejected.
To assess the intervening effect of international competitiveness on the relationship between tax incentives and FDI in EAC Partner states	H_2:The intervening effect of international competitiveness in the relationship between tax incentives and FDI in EAC partner states is not significant	Stepwise regression analysis used to test the intervening effect of each indicator of international competitiveness on relationship between each indicator of tax incentives and FDI in EAC. The study used Paramed command in Stata to estimate the causal mediation analysis using parametric regression models. Given Y as the dependent variable, X as the independent and M as the mediator variable then the steps in Paramed are: **Step 1:** X predicting Y. $$Y_{it} = \beta_O + \beta_1 X_{it} + \varepsilon$$ **Step 2:** X predicting M. $$M_{it} = \beta_O + \beta_1 X_{it} + \varepsilon$$ **Step 3:** M predicting Y $$Y_{it} = \beta_O + \beta_1 M_{it} + \varepsilon$$ **Step 4:** X and M predicting Y. $$Y_{it} = \beta_O + \beta_1 X_{it} + \beta_2 M_{it} + \varepsilon$$ The parameters estimated above are then used to calculate controlled direct effect, natural indirect effect and total effect.	To test for mediation effect, the study used the P-value of the estimate of the natural indirect effect. If the P-value of the estimate of natural indirect effect is less than 0.10 then there would be mediation effect, otherwise no mediation effect.
To establish the moderating effect of investment climate on the relationship tax incentives and FDI in EAC Partner states	H_3:The moderating effect of investment climate in the relationship between tax incentives and FDI in EAC partner states is not significant	Unmoderated and Moderated regressions will be estimated. Given Y as the dependent variable, X as the independent, M as the moderating variable and (X*M) is the interaction between the independent and moderating variable then the study estimated: **Unmoderated:** $$Y_{it} = \beta_O + \beta_1 X_{it} + \varepsilon$$ **Moderated:** $$Y_{it} = \beta_O + \beta_1 X_{it} + \beta_2 M_{it} + \beta_3 (X * M)_{it} + \varepsilon$$	To test for moderating effect, the study used the P-value of the estimate of the interaction term (X*M). If the P-value of the estimate of the interaction term is less than 0.10 then there would be moderating effect, otherwise no moderating effect.

Objective	Hypothesis	Analytical Model	Interpretation of Results
4). To establish the joint effect of tax incentives, international competitiveness, investment climate on foreign direct investment in EAC partner states	H₄: The joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states is not significant	Pooled OLS regression model $$FDI_{it} = \beta_O + \beta_1 TH_{it} + \beta_2 IA_{it} + \beta_3 LF_{it} + \beta_4 EI_{it} + \beta_5 CP_{it} + \beta_6 EG_{it} + \beta_7 ES_{it} + \beta_8 PS_{it} + \beta_9 CN_{it} + \beta_{10} TO_{it} + \beta_{11} MS_{it} + \varepsilon$$ Where: FDI=Foreign Direct Investment in country (i) at time (t) TH_{it}= Tax holiday IA_{it}= Investment Allowance LF_{it}= Period of losses carried forward EI_{it}= Export Index CP_{it}= Consumer Prices EG_{it}= Export Growth ES_{it}= Electricity supply PS_{it}= Political Stability CN_{it}= Corruption TO_{it}= Trade Openness MS_{it}= Market Size β's =Regression coefficients β_O= intercept t = time period ε= Error term	To test for the joint effect, the study used the F test. If the P-value of the F test is less than 0.10 then there would be joint effect, otherwise no joint effect. Additionally, the study used P-value of the estimates to test for individual effect. If the P-value of the regression coefficient(s) are less than 0.10 then the regression coefficients was significant otherwise it was insignificant. If significant then the null hypothesis would be rejected.

Source: Researcher (2019)

CHAPTER FOUR

DESCRIPTIVE ANALYSIS AND RESULTS

4.1 Introduction

This chapter contains the descriptive analysis of the five East Africa countries that is Kenya, Uganda, Tanzania, Rwanda and Burundi. Specifically, the study summarizes data on the independent variables, which include tax holidays, investment allowances and the period of losses carried forward and the dependent variable, which is FDI inflows. The chapter also summarizes data on the intervening variables, which is made up of export prices, consumer prices and export growth, and the moderating variable, which comprises of market size, electricity supply, political stability, corruption and trade openness. Also provided are the results of correlation analysis and a chapter summary.

4.2 Descriptive Analysis

Descriptive statistics are used to summarize data into meaningful form using various measures of central tendency like the mean, standard deviation, maximum and minimum. The mean describes the average of the number of observations while the standard deviation shows variations from the mean whereas the minimum and the maximum values show the lower and the upper bounds respectively. In addition, kurtosis and skewness are measures of normality and indicate whether the data is normally distributed.

4.2.1 Descriptive Statistics for Kenya

Table 4.1 shows the descriptive results for Kenya.

Table 4.1: Descriptive Statistics for Kenya

Variable	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	16	0.0109	0.01	0.00	0.03	0.92	2.51
Tax holiday (No of years)	15	10.00	0.00	10.00	10.00	.	.
Investment allowances (Rate in percentage)	16	40.18	1.98	36.67	46.07	1.27	6.41
Period of losses carried forward (no of years)	16	7.63	2.92	4.00	10.00	-0.48	1.27
Export unit value index	16	153.21	34.97	89.47	194.50	-0.56	1.95
Consumer prices Index	16	100.21	43.32	41.06	172.43	0.14	1.70
Export growth (Rate in percentage)	16	4.31	5.57	-6.16	12.60	-0.66	2.29
Market size(Log of GDP)	16	24.40	0.24	24.03	24.79	0.07	1.80
Electricity supply (Rate in percentage)	15	27.68	10.48	16.00	56.00	1.42	4.59
Political stability(index)	16	12.34	2.58	9.05	17.46	0.49	2.20
Corruption (index)	16	16.74	2.48	12.32	21.46	0.19	2.26
Trade openness (Ratio of exports & imports/GDP)	16	0.49	0.13	0.26	0.66	-0.50	2.10

Source: Researcher (2019)

The results indicate that the mean value for FDI inflows to GDP in Kenya was 0.0109. The results also show that the average number of years for tax holiday in Kenya is 10 with the maximum and minimum number of years being 10 respectively meaning that Kenya has not changed the number of years of tax holiday within the study period. The results further shows that mean value of investment allowances   was 40.182. Additionally, the results show that the average number of year for period of losses carried forward in Kenya was   with 7.625 the minimum and maximum number of years being 4 and 10 years respectively an indication that the Kenya had been changing the number of years multinationals can carry losses forward.

The results on international competitiveness variables show that average export unit value index was for Kenya was 153.21 with the minimum and maximum being 89.47 and 194.50 respectively. In addition, the average value for consumer prices was 100.21 with minimum and maximum values of 41.06 and 172.43 respectively. The results also show that export growth had a mean value of 4.31 with minimum and maximum values of -6.16 and 12.60, which indicates that the average growth of exports in Kenya over the study period was 4.31% with some period recording a negative growth in exports.

The findings on investment climate variables in Kenya show that the mean value of market size as measured using the natural log of GDP was 24.40 and the maximum and minimum values were 24.03 and 24.79 respectively, an indication that Kenya has the largest market size in the EAC. The study also shows that electricity supply had a mean value of 27.68 and maximum and minimum values of 16.00 and 56.00 respectively. This demonstrates that electicity supply in Kenya is comparatively good. Additionally, the results indicate that the mean value for political stability index was 12.34 with the minimum and maximum index being 9.05 and 17.46; this shows some level of political instability during the study period. Corruption index had a mean value of 16.74 with minimum and maximum values of 12.32 and 21.46 respectively, this shows that Kenya is among the most corrupt countries in the EAC. The results further show that trade openness had a mean value of 0.49 hence an indication that the contribution of imports and exports to the GDP was 49% respectively. The minimum and maximum values of trade openness was 0.26 and 0.66 respectively. The results indicates that Kenya has an open economy. Tax holiday and electricity supply had some missing data and 15 observations were available in each case during the study period.

4.2.2 Descriptive Statistics for Uganda

The results of descriptive results for Uganda are depicted in Table 4.2.

Table 4.2: Descriptive Statistics for Uganda

Variable	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	16	0.0339	0.01	0.02	0.05	-0.04	1.58
Tax holiday (No of years)	15	10.00	0.00	10.00	10.00	.	.
Investment allowances (Rate in percentage)	16	27.25	1.72	24.47	28.81	-0.89	2.16
Period of losses carried forward (no of years)	16	10.00	0.00	10.00	10.00	.	.
Export unit value index	16	160.56	40.12	90.99	222.65	-0.41	1.98
Consumer prices Index	16	104.61	38.67	54.54	166.78	0.21	1.57
Export growth(Rate in percentage)	16	10.56	21.72	-8.95	84.44	2.58	9.65
Market size(Log of GDP)	16	23.66	0.31	23.15	24.08	-0.28	1.75
Electricity supply (Rate in percentage)	15	13.87	5.07	7.80	26.70	1.09	3.76
Political stability(index)	16	16.71	5.00	6.53	27.14	-0.09	3.04
Corruption (index)	16	18.52	4.09	12.98	24.39	-0.16	1.68
Trade openness (Ratio of exports & imports/GDP)	16	0.39	0.12	0.19	0.54	-0.47	1.75

Source: Researcher (2019)

The results indicate FDI inflows to GDP in Uganda had a mean of 0.0339 with maximum

and minimum values of 0.02 and 0.05 respectively while the average number of years for

tax holiday were 10 with the maximum and minimum values being 10 and indication that

there was no change of the number of years for tax holidays. The results also shows that the

average rate of investment allowances was   27.25% a demonstration   that Ugandan

government gave investment allowances to investors of about 27.25% during the study

period. The average number of years for period of losses carried forward was 10 years which

had remained the same an indication that Ugandan government had not changed its policy

as regard to period of losses carried forward during the study period.

The results on international competitiveness show that export prices had a mean value of 160.56 with the minimum and maximum values being 90.99 and 222.65 respectively. The average value of consumer price index was 104.61 with minimum and maximum values of 54.54 and 166.78 respectively. The results also show that the average value of export growth was 10.56 with the minimum value of export growth being -8.95 and maximum value being 84.44 respectively, which indicates that in some years the country had negative exports growth.

The results of investment climate show that market size had a mean value of 23.66, which means the average GDP for Uganda was 23.66 while the average value of electricity supply was 13.87, which means that the average value for electricity supply in Uganda is 13.87. The results also show that the average value for political stability was 16.71 with minimum and maximum values of 6.53 and 27.14 respectively. Further, corruption index had a mean value of 18.52 while trade openness had a mean value of 0.39. Tax holiday and electricity supply had some missing data and 15 observations were available in each case during the study period.

4.2.3 Descriptive Statistics for Tanzania

Table 4.3 below shows the descriptive results for Tanzania for the considered study period

Table 4.3: Descriptive Statistics for Tanzania

Variable	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	16	0.0342	0.01	0.02	0.06	0.27	1.80
Tax holiday (No of years)	15	8.93	2.81	2.00	10.00	-2.16	5.65
Investment allowances (Rate in percentage)	16	31.01	5.20	20.71	36.90	-1.45	3.43
Period of losses carried forward (no of years)	16	10.00	0.00	10.00	10.00	.	.
Export unit value index	16	209.35	69.92	97.20	306.13	-0.29	1.74
Consumer prices Index	16	106.61	41.25	57.26	175.04	0.34	1.63
Export growth(Rate in percentage)	16	8.04	10.62	-11.74	26.43	-0.01	2.37
Market size(Log of GDP)	16	24.15	0.31	23.65	24.64	0.00	1.85
Electricity supply (Rate in percentage)	15	15.12	5.53	10.85	32.80	2.31	8.11
Political stability(index)	16	34.74	8.97	22.11	47.87	0.24	1.65
Corruption (index)	16	33.93	7.52	22.75	48.78	0.36	2.32
Trade openness (Ratio of exports & imports/GDP)	16	0.42	0.13	0.22	0.60	-0.12	1.72

Source: Researcher (2019)

The results for Tanzania show that FDI inflows to GDP had an average value of 0.0342 with a minimum value of 0.02 and 0.06 respectively. The average number of years for tax holiday was 8.93 with a minimum of 2 years and maximum of 10 years hence an indication that Tanzania reviewed the number of years for with regards to tax holiday. The findings show that the average value of investment allowances was 31.01 with minimum and maximum values of 20.71 and 36.90 respectively. This shows that the average rate of investment allowance in various sectors was 31.01%. According to the results, the average

numbers of years for period of losses carried forward are 10 years, implying that Tanzania has unlimited number of years for carrying forward losses.

The study shows that export prices measured using the export value unit index had a mean of 209.35 and minimum and maximum value of 97.20 and 306.13 while consumer prices had a mean of 106.61 and maximum and minimum values of 57.26 and 175.04 respectively. The results further show that the mean value for export growth was 8.04 and minimum and maximum value of -11.74 and 26.43 which indicates that some years Tanzania, recorded a negative growth in exports.

The results of investment climate in Tanzania show that market size proxied using real GDP had an average value of 24.15 with minimum and maximum values of 23.65 and 24.64 while the average value for infrastructure was 15.12 with minimum and maximum values of 10.85 and 32.80 respectively. The average value for political stability index was 34.74 with minimum value of 22.11 and 47.87 whereas the average value for corruption was 33.93 with minimum and maximum values of 22.75 and 48.78 respectively. Trade openness on the other hand, had an average value of 0.42 and minimum and maximum values of 0.22 and 0.60, which indicates that imports and exports contributed 42 % of Tanzania GDP over the study period.

4.2.4 Descriptive Statistics for Rwanda

The results for Rwanda are shown in Table 4.4 below as follows

Table 4.4: Descriptive Statistics for Rwanda

Variable	Obs.	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	16	0.0213	0.01	0.00	0.04	-0.09	1.67
Tax holiday (No of years)	15	0.93	2.46	0.00	7.00	2.16	5.65
Investment allowances (Rate in percentage)	16	20.34	2.89	16.73	22.50	-0.52	1.27
Period of losses carried forward (no of years)	16	5.00	0.00	5.00	5.00	.	.
Export unit value index	16	227.56	75.49	87.70	319.56	-0.71	2.15
Consumer prices Index	16	95.73	30.76	49.26	146.63	-0.03	1.77
Export growth(Rate in percentage)	16	13.72	14.39	-12.08	44.64	0.46	2.85
Market size(Log of GDP)	16	22.43	0.35	21.89	22.96	-0.08	1.73
Electricity supply (Rate in percentage)	15	12.80	6.84	4.80	29.37	1.07	3.38
Political stability(index)	16	31.55	12.35	5.82	47.62	-0.59	2.32
Corruption (index)	16	59.70	14.63	31.71	75.48	-0.65	1.96
Trade openness (Ratio of exports & imports/GDP)	16	0.38	0.13	0.16	0.52	-0.59	1.83

Source: Researcher (2019)

The results show that FDI inflows to GDP had a mean value of 0.0213 with the minimum and maximum values being 0.001 and 0.04 while the average value for tax holidays was 0.93 with the minimum and maximum number of years for tax holidays in Rwanda was 0 and 7 years respectively. This can be explained by the fact that Rwanda had not been offering tax holiday from 2002 all the way up to 2015 when they started offering 7 years. According to the findings, average value for investment allowances was 20.34 with the minimum and

maximum values being 16.73 and 22.50 while the average number of years for losses to be carried forward was 5 years, which had remained constant over the study period.

The findings on international competitiveness show that average vale of export prices was 227.56 with minimum and maximum value of 87.70 and 319.56 the average value for consumer prices was 95.73 with a minimum value of 49.26 and maximum value of 146.63 respectively. The average growth rate for exports was 13.72 with the minimum and maximum values being -12.08 and 44.64 respectively.

The results on investment climate indicate that the average market size for Rwanda was 22.43 with the minimum and maximum values of 21.89 and 22.96 correspondingly. The results further show that infrastructure had a mean value of 12.80 and minimum and maximum values of 4.80 and 29.37 respectively while political stability had a mean value of 31.55 with a minimum and maximum value of 5.82 and 47.62 respectively. In addition, the average value for corruption index was 59.70 with the minimum value being 31.71 and maximum value of 75.48 in that order. The average value for trade openness was 0.38 with minimum and maximum values being 0.16 and 0.52 respectively.

4.2.5 Descriptive Statistics for Burundi

Table 4.5 below shows the results for Burundi for the considered study period.

Table 4.5: Descriptive Statistics for Burundi

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	14	0.0079	0.02	0.00002	0.05	1.84	4.94
Tax holiday (No of years)	15	10.00	0.00	10.00	10.00	.	.
Investment allowances (Rate in percentage)	16	37.63	10.51	20.00	43.50	-1.15	2.33
Period of losses carried forward (no of years)	10	5.00	0.00	5.00	5.00	.	.
Export unit value index	16	188.46	63.78	81.10	291.46	-0.29	2.06
Consumer prices Index	16	103.18	45.41	45.22	188.68	0.34	1.85
Export growth(Rate in percentage)	15	11.01	29.04	-35.60	61.79	0.46	2.26
Market size(Log of GDP)	16	21.39	0.16	21.15	21.60	-0.17	1.51
Electricity supply (Rate in percentage)	15	5.39	1.36	3.21	7.59	0.13	1.82
Political stability(index)	16	7.05	4.88	0.53	20.48	1.15	4.73
Corruption (index)	16	11.83	6.24	1.42	25.25	0.44	2.90
Trade openness (Ratio of exports & imports/GDP)	15	0.33	0.12	0.11	0.49	-0.27	1.99

Source: Researcher (2019)

The results shows that Burundi FDI inflows to GDP had an average value of 0.0079 with minimum and maximum values of 0.00002 and 0.05 respectively which indicates that there were years in which Burundi attracted very little FDI inflows. The average number of years for tax holidays was 10 years, which have been the same over the study period indicating that Burundi policy on tax holiday has not changed over the study period. The average investment allowance over the period was 37.63% hence an indication that average value of investment allowances Burundi had been 37.63 % throughout the study period. The average number of years for carrying losses forward was five years.

The results on international competitiveness show that the average value of export prices was 188.46 with minimum and maximum values of 81.10 and 291.46 while the average value of consumer prices was 103.18 with minimum and maximum value of 45.22 and maximum values of 188.68 respectively. The results also show that the average growth rate for exports was 11.01 with minimum and maximum values of -35.60 and 61.79 respectively.

The results of investment climate show that market size had an average value of 21.39 with minimum and maximum values of 21.15 and 21.60 respectively while the average value of electricity supply was 5.39 with minimum and maximum values of 3.21 and 7.59 respectively. The findings also indicate that the political stability had an average index of 7.05 with minimum and maximum values of 0.53 and 20.48 respectively. According to the results, the mean value for corruption was 11.83 with minimum and maximum values being 1.42 and 25.25 while trade openness had a mean value of 0.33 with minimum and maximum values of 0.11 and 0.49 respectively. Data for FDI inflow, Tax holiday, and period of losses carried forward, export growth, electricity supply and trade openness was missing in some years for Burundi.

4.2.6 Summary Statistics of the Study Variables

Table 4.6 shows a summary of the pooled results from the five East Africa Community partners states for the period 2002 to 2017.

Table 4.6: Summary Statistics for the Study Variables

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
FDI inflows (Ratio of FDI to GDP)	78	0.0220	0.02	0.00002	0.06	0.21	1.86
Tax holiday (No of years)	75	7.9733	3.92	0.00	10.00	-1.47	3.25
Investment allowances (Rate in percentage)	80	31.2815	8.99	16.73	46.07	-0.02	1.66
Period of losses carried forward (no of years)	74	7.7297	2.58	4.00	10.00	-0.29	1.15
Export unit value index	80	187.8268	64.25	81.10	319.56	0.17	2.07
Consumer prices Index	80	102.0669	39.36	41.06	188.68	0.28	1.87
Export growth(Rate in percentage)	79	9.5090	17.88	-35.60	84.44	1.47	7.23
Market size(Log of GDP)	80	23.2048	1.17	21.15	24.79	-0.46	1.74
Electricity supply (Rate in percentage)	75	14.9730	9.65	3.21	56.00	1.57	6.43
Political stability(index)	80	20.4784	13.17	0.53	47.87	0.64	2.30
Corruption (index)	80	28.1433	19.25	1.42	75.48	1.16	3.32
Trade openness (Ratio of exports & imports/GDP)	79	0.4021	0.13	0.11	0.66	-0.25	2.15

Source: Researcher (2019)

The pooled results for the five countries show that FDI inflows to GDP had a mean of 0.0220. The minimum and maximum values were 0.00002 and 0.06 respectively an indication that some countries had very little FDI inflows during the study period. The average number of years for tax holiday was 7.97. The results also depict that the average rate of investment allowances for the five nations was 31.28% with minimum and maximum values being 16.73% and 46.07% respectively while the average number of years for carrying losses forward was 7.73 with minimum and maximum values of 4 and 10 years respectively.

The results on international competitiveness indicate that the average value of export prices was 187.83 with a minimum of 81.10 and maximum value of 319.56 and the average value of consumer prices was 102.07 with minimum and maximum values of 41.06 and 188.68 respectively. The results show that the average export growth value of 9.51 with the minimum and maximum values being -35.60 and 84.44 which indicates some country's had negative growth in exports in some of the years within the study period.

The results of investment climate show that the average value for market size was 23.20 with the minimum and maximum values being 21.15 and 24.79 while the average value for infrastructure was 14.97 with minimum value of 3.21 and maximum value of 56.00 respectively. The results also show that political stability had a mean value of 20.48with minimum and maximum values of 0.53 and 47.87 while corruption had a mean index of 28.14 and minimum and maximum values of 1.42 and 75.48 correspondingly. Finally, the mean value for trade openness was 0.40 with minimum and maximum values of 0.11 and 0.66 respectively.

4.2.7 Cross Country Comparisons

Table 4.7 shows the summary of means of the five East Africa Community partner states.

Table 4.7: Cross Country Comparisons

Country	Kenya	Uganda	Tanzania	Rwanda	Burundi
Variable	Mean	Mean	Mean	Mean	Mean
FDI inflows (Ratio of FDI to GDP)	0.0109	0.0339	0.0342	0.0213	0.0079
Tax holiday (No of years)	10.00	10.00	8.93	0.93	10.00
Investment allowances (Rate in percentage)	40.18	27.25	31.01	20.34	37.63
Period of losses carried forward (no of years)	7.63	10.00	10.00	5.00	5.00
Export unit value index	153.21	160.56	209.35	227.56	188.46
Consumer prices Index	100.21	104.61	106.61	95.73	103.18
Export growth(Rate in percentage)	4.31	10.56	8.04	13.72	11.01
Market size(Log of GDP)	24.40	23.66	24.15	22.43	21.39
Electricity Supply (Rate in percentage)	27.68	13.87	15.12	12.80	5.39
Political stability(index)	12.34	16.71	34.74	31.55	7.05
Corruption (index)	16.74	18.52	33.93	59.70	11.83
Trade openness (Ratio of exports & imports/GDP)	0.49	0.39	0.42	0.38	0.33

Source: Researcher (2019)

The results on Table 4.7 shows that Tanzania the country with the highest population in the EAC had the highest ratio of FDI inflows to GDP with a mean value of 0.0342 followed by Uganda and Rwanda with values of 0.0339, 0.0213 respectively. Kenya, the biggest economy in the EAC was next in terms FDI inflow to GDP during the study period with a value of 0.0109 and finally Burundi followed with mean value of 0.0079. This shows that Tanzania had the highest amount of FDI inflows to GDP while Burundi recorded the lowest amount of FDI inflows among EAC partner states during the study period. The low amount of FDI inflow to GDP recorded by Burundi could be attributed to the fact that the country was not political stable during the period of the study. The results show that the average value for tax holidays in Kenya, Tanzania and Burundi was 10 years while Tanzania had an average value of 8.93 with Rwanda having the lowest mean value of 0.93. An indication

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that Rwanda was not giving tax holidays for a long time during the study period. With regard to investment allowances, Kenya had the highest mean value of 40.18% followed by Burundi, Tanzania, Uganda and Rwanda with the least. The results show that the average value of the period of period of losses carried forward in Tanzania and Uganda was 10 years while the period of period of losses carried forward in Kenya was 7.63 years with Rwanda and Burundi having five years respectively.

On international competitiveness, average value for export prices show that Rwanda had the highest value of 227.56 followed by Tanzania, Burundi, Uganda and finally Kenya with mean values of 209.35 , 188.46, 160.56 and 153.21 respectively which indicates that export unit price index was highest in Rwanda and lowest in Kenya. The results on the average consumer prices index show that Tanzania had the highest mean value of 106.61 followed by Uganda, Burundi, Kenya and finally Rwanda with mean values of 104.61, 103.18, 100.21 and 95.73 respectively which indicates that inflation was highest in Tanzania compared to the other countries with Rwanda posting the lowest inflation. The results of export growth show that Rwanda had the highest ratio of 13.72, followed by Burundi and Uganda with mean values of 11.01 and 10.56 with Tanzania and Kenya having the lowest mean values of 8.04 and 4.31 respectively which indicates that Rwanda had the highest ratio of exports growth and Kenya the least. This swos that Kenya performed poorly in terms of export growth.

The average results of investment climate indicators show that, the market size for Kenya was the largest with a mean value of 24.40 followed by Tanzania, Uganda, Rwanda and Burundi with mean values of 24.15 , 23.66 , 22.43 and 21.39 in that order. Concerning supply to electricity, the results show that Kenya had the highest mean value of 27.68

followed by Tanzania with a mean value of 15.12   and then Uganda with a mean value of 13.87 with Rwanda and Burundi having the lowest mean values of 12.80 and 5.39 respectively. This an indication of heavy investment Kenya government has put in infrastructural development. On the othe hand, Brundi due to civil war during the study period had little supply of electricity in its economy and indication of poor infrastructural development. The results on political stability show that Tanzania had the highest mean value of   34.74 followed by Rwanda with a mean value of 31.55. Uganda, Kenya and Burundi had mean values of 16.71,   12.34 and 7.05 respectively, which means that Tanzania is the most politically stable country while Burundi is the most politically unstable country among the five EAC partner states. The low index recorded by Burundi on political stability can be attributed to internal armed conflict experienced in the country during the study period.

The results of corruption show that Rwanda had the highest mean value of 59.70   followed by Tanzania, Uganda, Kenya and Burundi with mean values of 33.93, 18.52, 16.74 and 11.83 which shows that Rwanda is the least corrupt country among the five EAC partner states while Burundi is the most corrupt. The high corruption index for Rwanda means that Rwanda is the least corrupt country in the region. Meaning that the high the corruption index the better and vice versa. The, countries with the lowest corruption index are the most corrupt. Finally, the results of trade openness show that Kenya had the highest ratio of 0.49 followed by Tanzania, Uganda, Rwanda and finally Burundi with mean values of 0.42, 0.39, 0.38 and 0.33 respectively, which means that Kenya had the most trade liberalized economy while Burundi had the most closed economy among the five EAC member states.

4.3 Trend Analysis

This section depicts the trend of the study variables, FDI inflows, tax incentives, international competitiveness indicators and investment climate over the considered study period for the members of the East Africa Community.

4.3.1 Trend Analysis for Kenya

The results for Kenya are shown in figure 4.1 to 4.4

4.3.1.1 FDI Inflows
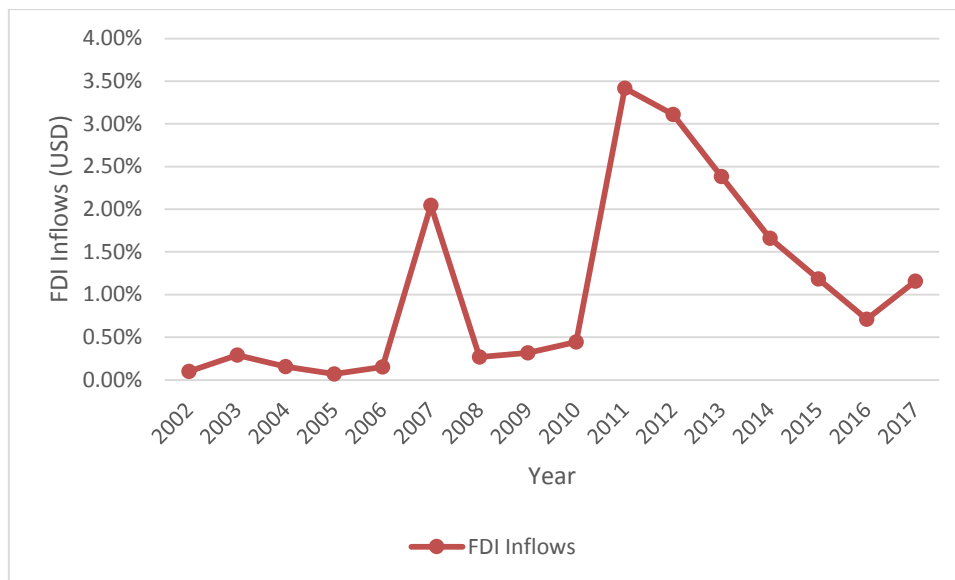
Figure 4.1: Trend Analysis for FDI Inflows in Kenya
Source: Researcher (2019)

Figure 4.1 shows that FDI inflows steadily increased from 2002 to 2006 then a sharp increase in 2007 followed by a sharp decline in 2008. The sharp decline in 2008 can be attributed to post election skirmishes and political instability in the year 2008. The figure also shows that there was sharp increase in FDI inflows from 2009 to 2011 followed by a decline in FDI inflows from 2012 to 2016. Then an in increase in 2017.

4.3.1.2 Tax Incentives
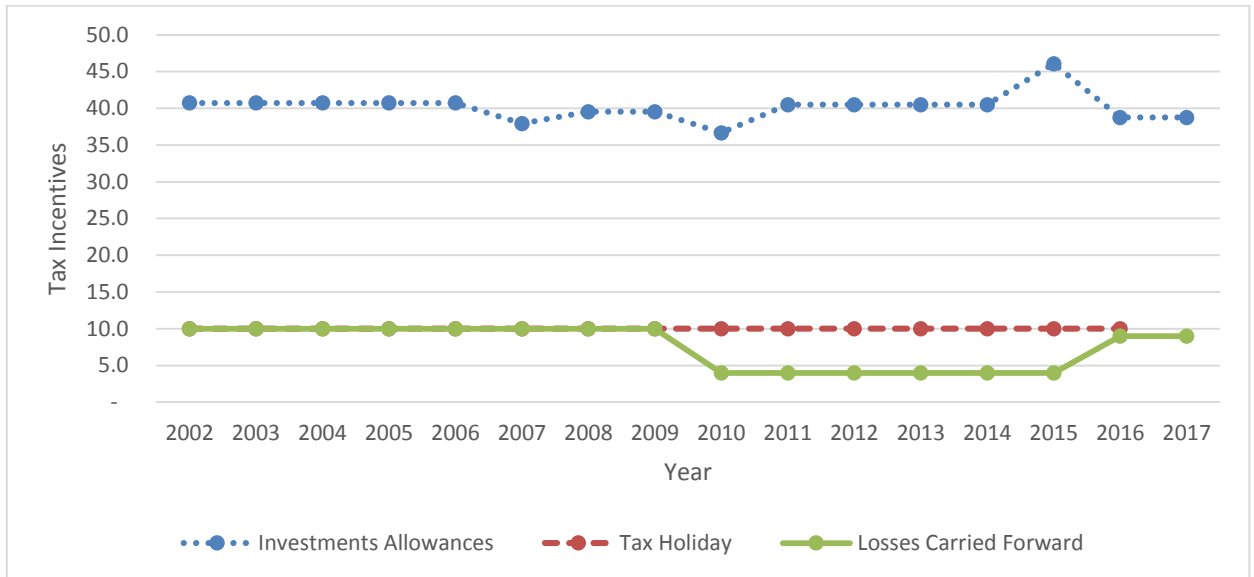
Figure 4.2: Trend Analysis for Tax Incentives in Kenya
Source: Researcher (2019)

 Figure 4.2 indicates that the number of years for tax holidays remained constant over the study period while the period of period of losses carried forward was same from 2002 to 2009 then followed by a decline in 2010 which remained the same all through to 2015 then an increase in 2016. Concerning investment allowances, the rate was constant from 2002 to 2006 then it went down from 2007 to 2010. An increase was witnessed from 2011 to 2015 followed by a decline from 2016 to 2017.

4.3.1.3 International Competitiveness

Figure 4.3: Trend Analysis for International Competitiveness of Kenya

Source: Researcher (2019)

Figure 4.3 shows that export prices and consumer prices in Kenya had been steadily rising over the research period. On the other hand, growth in exports had been fluctuating over the period where the country had recorded a growth in exports from 2002 up to 2008 but a negative growth in exports was recorded in 2009 followed by growth up to 2012 then negative growth in 2013. From 2014 to 2015 the country recorded growth but a negative growth from 2016 to 2017.

4.3.1.4 Investment Climate
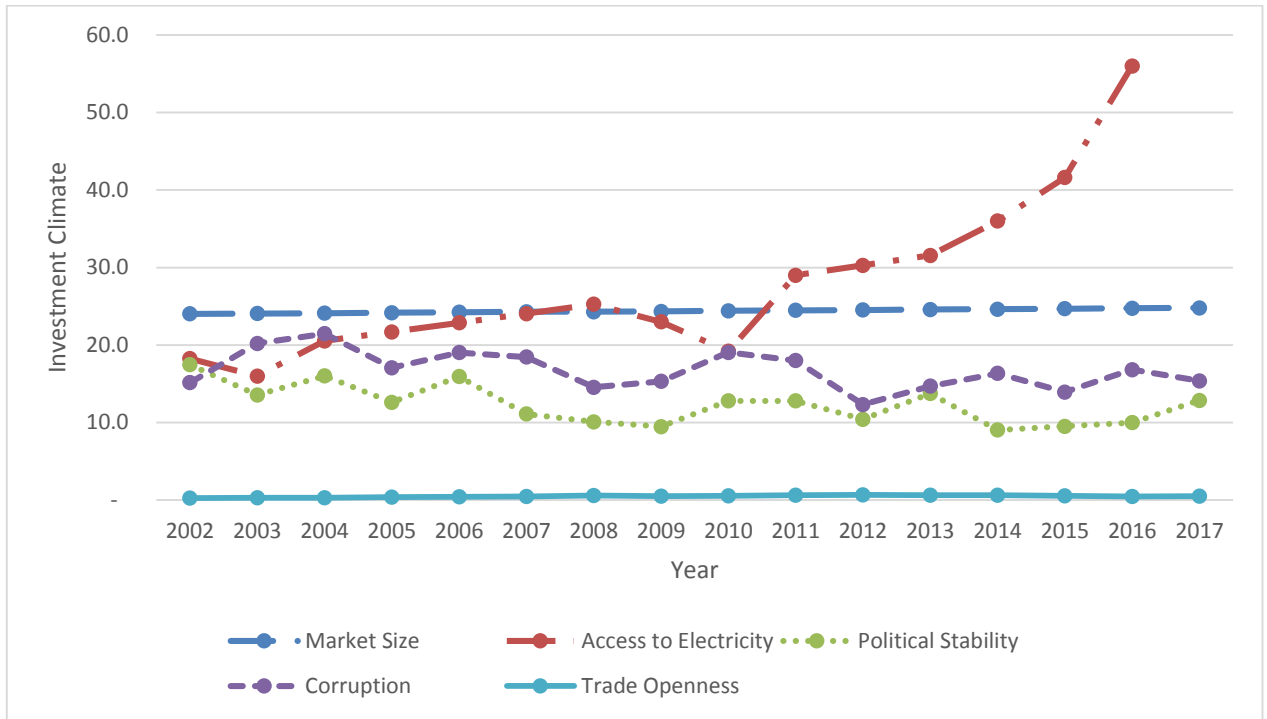
Figure 4.4: Investment Climate

Source: Researcher (2019)

The findings presented in figure 4.4 show that electricity supply dropped from 2002 to 2003 it then had a steady increase from 2004 to 2008 followed with a drop from 2009 to 2010. There was a sharp increase in electricity supply from 2011 to 2016.   Corruption in Kenya had been fluctuating over the study period with high corruptions levels being recorded in 2005, 2008, 2009, 2012, 2013, 2015 and 2017 as shown by low values of corruption index during those years. The figure also shows country period of less political stability were witnessed in some of the years like in 2008 , 2009 2014, 2015 and 2016 with the other period remaining relatively stable politically. The figure further indicates that Kenya's market size in terms of GDP and trade openness has been gradually growing over the considered study period.

4.3.2 Trend Analysis for Uganda

4.3.2.1 FDI Inflows
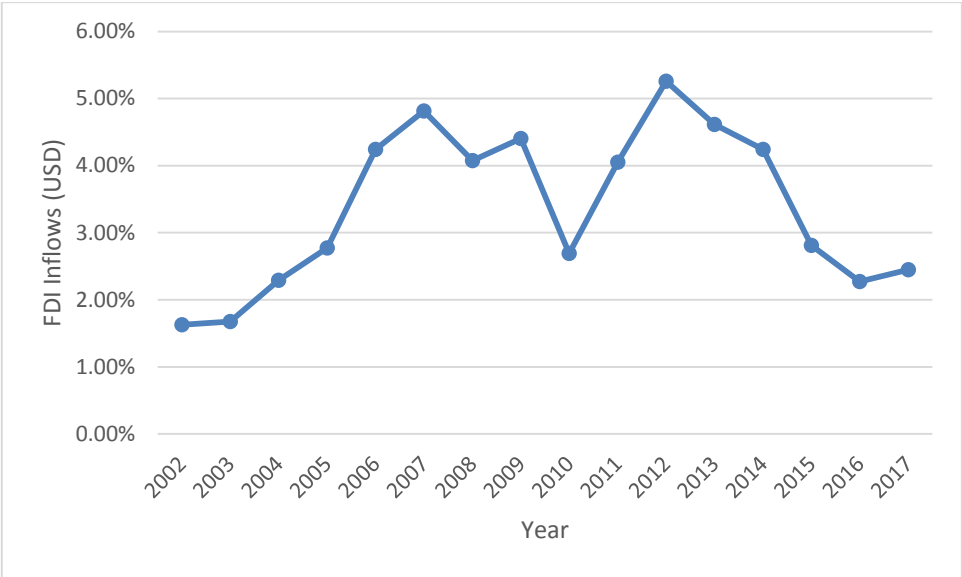
Figure 4.5: Trend Analysis for FDI Inflows in Uganda

Source: Researcher (2019)

Figure 4.5 shows the trend for FDI inflows in Uganda for the study period. The figure shows

that Uganda recorded a steady increase in FDI inflows from 2002 to 2007 followed by a drop

in 2008 but went up in 2009. A sharp decline was witnessed in 2010 then a sharp increase

2011 and 2012 then a sharp decline from 2013 to 2016. There was a moderate increase in

2017 compared to 2016.

4.3.2.2 Tax Incentives

Figure 4.6: Trend Analysis for Tax Incentives of Uganda

Source: Researcher (2019)

Figure 4.6 shows the trend for tax incentives in Uganda. According to the figure 4.6 the rate of investment allowances declined gradually in Uganda during the study period. The period of tax holidays and period of period of losses carried forward remained constant in Uganda over the study period.

4.3.2.3 International Competitiveness

Figure 4.7: Trend Analysis for International Competitiveness Indicators of Uganda

Source: Researcher (2019)

The results on figure 4.7 above shows that Uganda had recorded a steady rise in export prices from 2002 up to 2018 then a steady decline in 2009 that was followed by an increase up to 2011. A gradual decrease was recorded from 2012 to 2017. On the other hand, consumer prices had been steadily increasing over the study period while the country has been witnessing fluctuations in exports with positive growth being recorded from 2002 to 2008, 2011 to 2013 and 2016. There was negative growth in export in 2009, 2010, 2014, 2015 and 2017.

4.4.2.4 Investment Climate
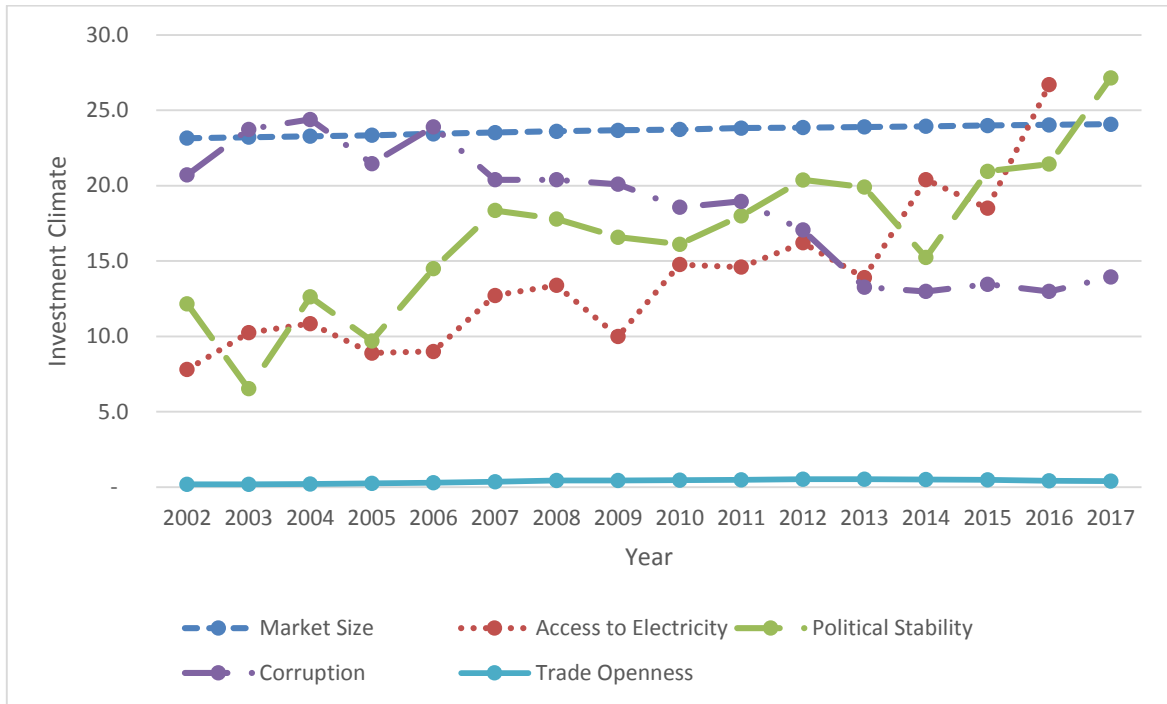
Figure 4.8: Trend Analysis for Investment Climate of Uganda
Source: Researcher (2019)

The results on investment climates for Uganda in figure 4.8 shows that corruption had been steadily increasing as indicated by the fall in the corruption index in the country from 2005 all through to 2016, it marginally decreased in 2017 compared to 2016. electricity supply has been increasing from 2002 to 2016 with minimal fluctuations.   The figure also shows that political stability in the country had been increasing over the study period with periods of less political stability being recorded in 2003, 2005, 2010 and 2014. The figure also shows that market size in terms of GDP and trade openness had been gradually increasing over the study period.

4.3.3 Trend Analysis for Tanzania

4.4.3.1 FDI Inflows
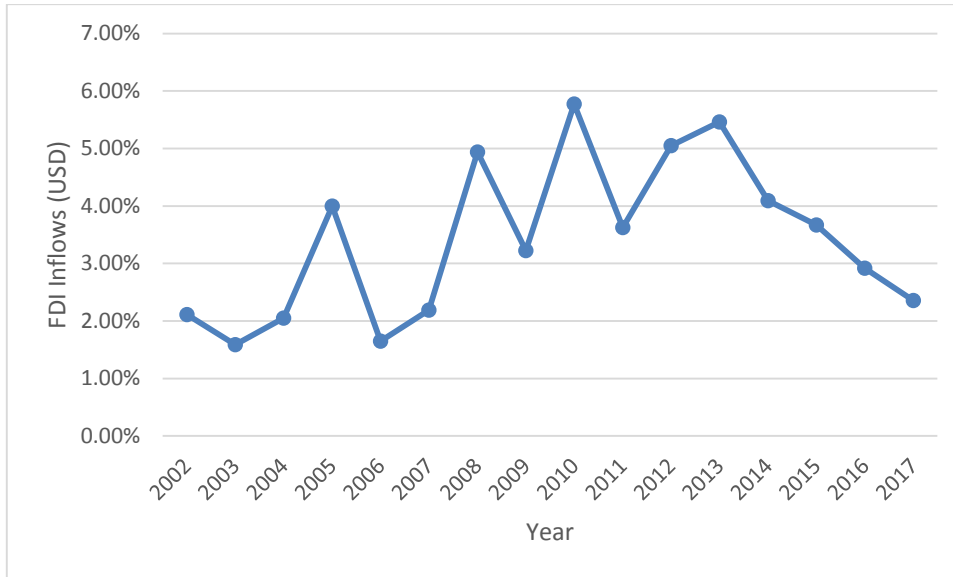
Figure 4.9: Trend Analysis for FDI Inflows in Tanzania

Source: Researcher (2019)

The results on figure show that FDI inflows in Tanzania gradually increased from 2002 to 2005 followed by a marginal decline in 2006 and then a sharp increase was recorded in 2008. The figure also shows the country recorded a sharp decline in FDI inflows in 2009 followed by an increase in 2010 then a decrease 2011. From 2012 to 2014, there was steady increase in FDI followed by gradual decrease from 2015 all through to 2017.

4.4.3.2 Tax Incentives

Figure 4.10: Trend Analysis for Tax Incentives of Tanzania

Source: Researcher (2019)

Figure 4.10 shows the trend of tax incentive indicators for the study in Tanzania. The figure shows that the period of period of losses carried forward remained constant for the study period while the rate of investment allowances was constant from 2002 to 2004 then reviewed upwards in 2005 remaining constant all through up to 2016 where it was reviewed upward again in 2017. The figure also shows that the period of tax holidays was constant in 2002 and 2003, which was reviewed upwards in 2004 and then remained constant all through up to 2017.

4.4.3.3 International Competitiveness

Figure 4.11: Trend Analysis for International Competitiveness of Tanzania

Source: Researcher (2019)

The findings on Figure 4.11 shows the trend for international competitive indicators in Tanzania. According to the figure, export prices in Tanzania recorded a steady increase from 2002 up to 2011 followed by a steady decline from 2012 all through to 2015 then a slight upward trend from 2016 through to 2017. The figure also shows that Tanzania had been recording a steady increase in consumer prices over the study period. Further, with regards to export growth, negative growth was only recorded in 2016 and 2017 with the country recording positive growth in exports in the other years.

4.4.3.4 Investment Climate
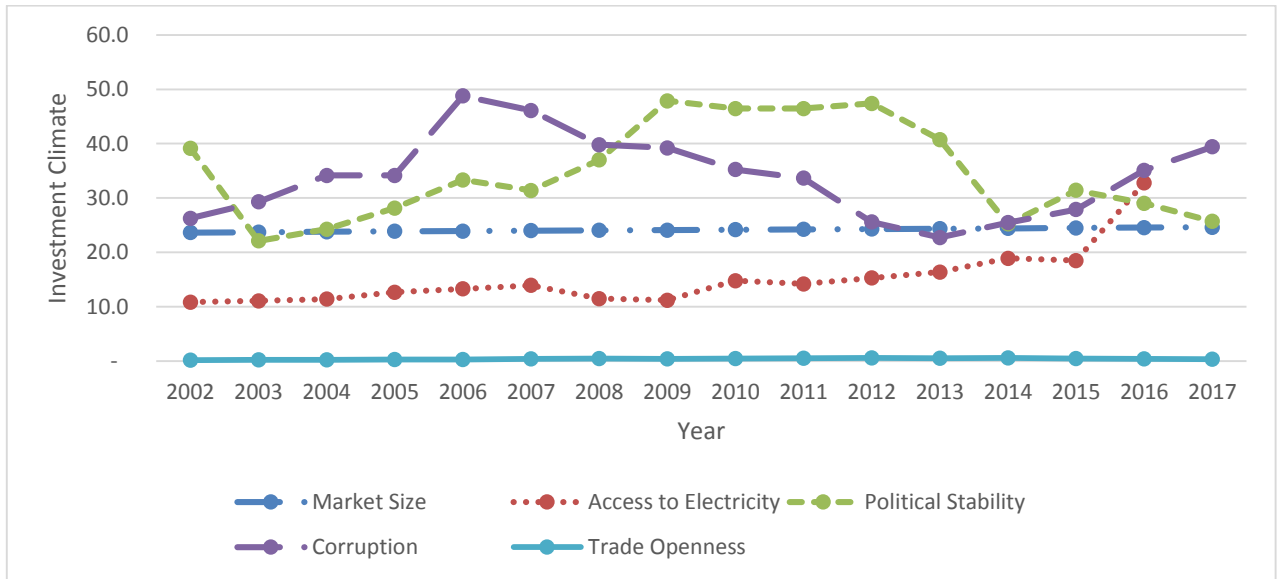
Figure 4.12: Trend Analysis for Investment Climate of Tanzania

Source: Researcher (2019)

Figure 4.12 shows the trend analysis for investment climate indicators in Tanzania. The figure indicates that corruption in the country gradually decreased from 2002 up to 2006 followed by steady increase from 2007 to 2013 then a steady decline as from 2014 to 2017. The results also show that political stability in Tanzania had been gradually rising with period of less political stability being recorded in 2003, 2014 and 2017. The results further show that electricity supply, market size (GDP) and trade openness have been gradually rising in Tanzania over the study period.

4.3.4 Trend Analysis for Rwanda

4.3.4.1 FDI Inflows
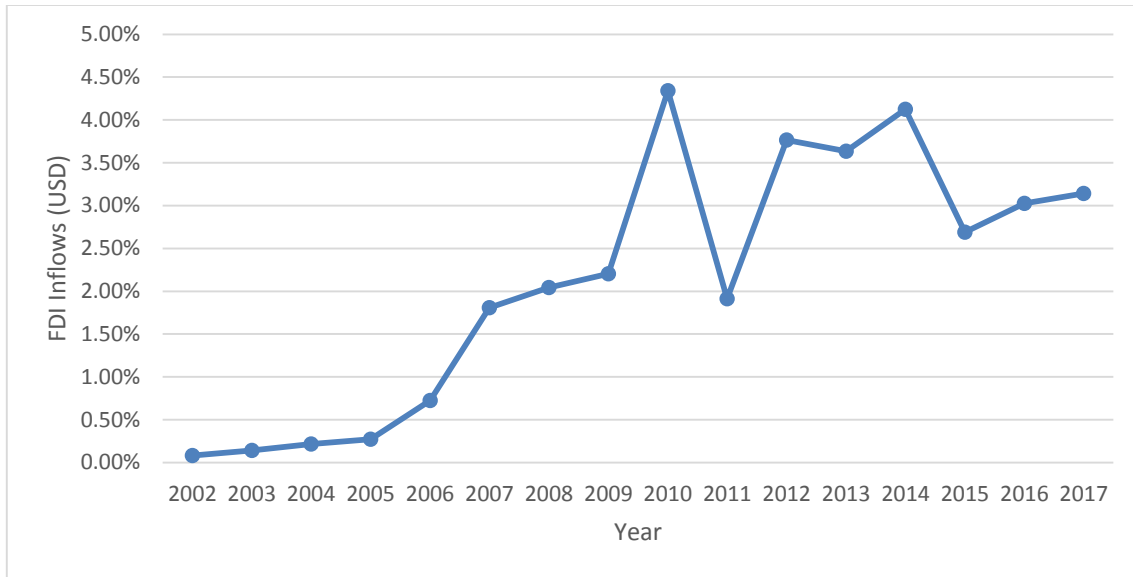
Figure 4.13: Trend Analysis for FDI Inflows of Rwanda

Source: Researcher (2019)

The trend analysis results for FDI inflows in Rwanda on figure 4.13 indicates that FDI inflows in Rwanda had been gradually increasing from 2002 all through up to 2010 then a sharp decline was witnessed in 2011. The results further shows as from 2012 FDI inflows in Rwanda increased gradually up to 2014 then a decline was recorded in 2015 and an increase in 2016 and 2017.

4.3.4.2 Tax Incentives
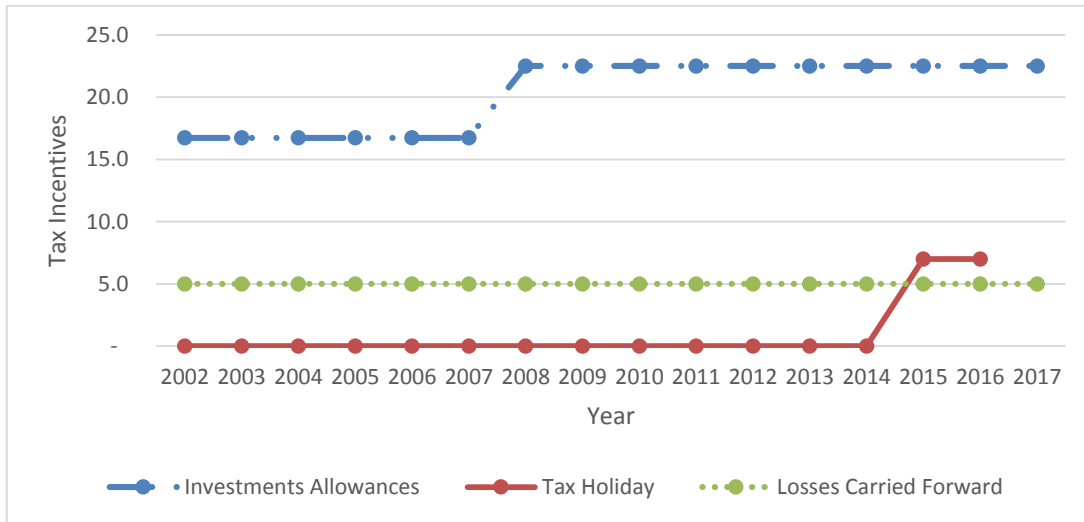
Figure 4.14: Trend Analysis for Tax Incentives of Rwanda

Source: Researcher (2019)

The trend analysis for tax incentive in Rwanda on Figure 4.14 shows that the period of period of losses carried forward remained constant over the study period while years for tax holidays were zero from 2002 up to 2014 and then tax holidays were introduced in 2015. The figure also shows that the rate of investment allowances was constant from 2002 to 2007 followed by an increase in 2008, which remained constant all through up to 2017.

4.3.4.3 International Competitiveness

Figure 4.15: Trend Analysis for International Competitiveness of Rwanda

Source: Researcher (2019)

Figure 4.15 shows the results of trend analysis for international competiveness indicators for Rwanda over the considered research period. The figure shows that export prices and consumer prices had been gradually increasing over the research period. The figure also shows that the country had recorded a growth in exports with a steady increase being recorded from 2001 to 2004 and a gradual decline in 2005 and 2006 followed by sharp increase in 2007 then a decline in 2008. There was growth a negative growth in export in 2008 and 2009.

4.3.4.4 Investment Climate
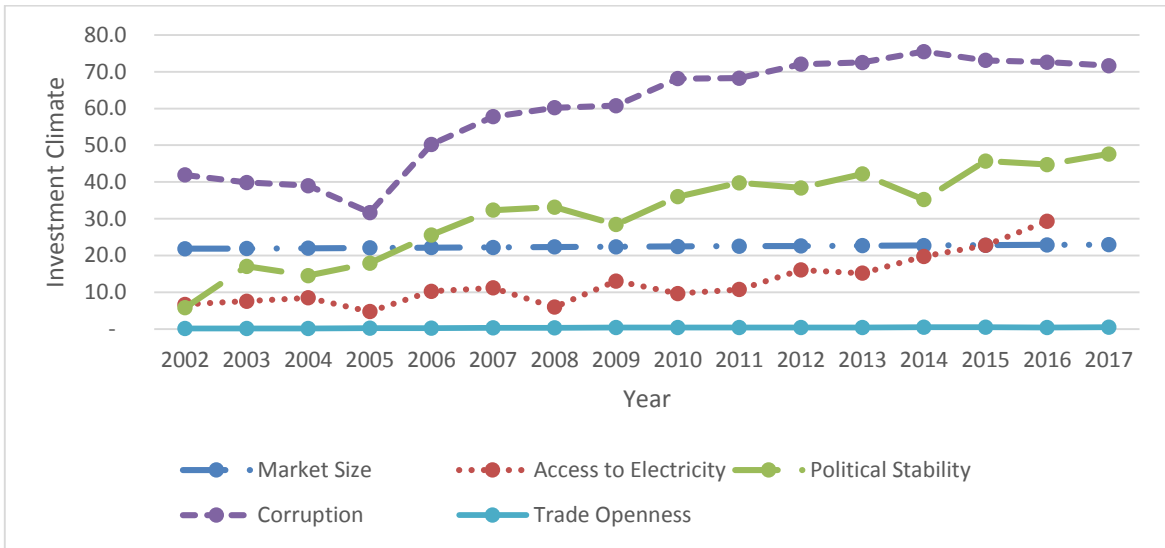
Figure 4.16: Trend Analysis for Investment Climate of Rwanda

Source: Researcher (2019)

The results on Figure 4.16 show that corruption in Rwanda has been steadily declining from 2005 all through up to 2017 as shown by the increase in corruption index ranking. The results further show that country has been recording a gradual increase in political stability with period of less political stability being recorded in 2002, 2009 and 2014. The figure further shows that electricity supply, market size (GDP), and trade openness had been gradually rising over the study period in Rwanda.

4.3.5 Trend Analysis for Burundi

4.3.5.1 FDI Inflows
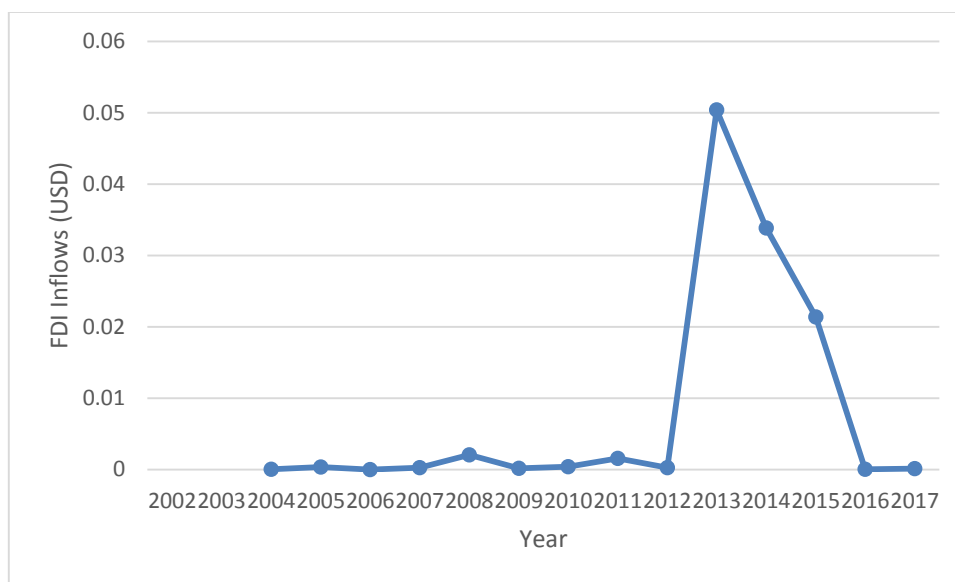
Figure 4.17: Trend Analysis for FDI Inflows in Burundi

Source: Researcher (2019)

The results on figure 4.17 show the trend analysis for FDI inflows in Burundi. The figure shows that FDI inflows in Burundi were nil in 2002 and 2003 followed by a marginal increase from 2004 to 2012 when the country recorded a sharp increase in FDI inflows in 2013 followed by a sharp decline all through to 2016. The data for 2017 was missing.

4.3.5.2 Tax Incentives

Figure 4.18: Trend Analysis for Tax Incentives in Burundi

Source: Researcher (2019)

Figure 4.18 shows the trend analysis for tax incentives in Burundi. The rate of investment allowances remained constant from 2002 to 2013. It was reviewed downwards in 2014 and remain constant up to 2017. The period of tax holidays and period of losses carried forward remained constant over the study period

4.3.5.3 International Competitiveness

Figure 4.19: Trend Analysis for International Competitiveness of Burundi

Source: Researcher (2019)

Figure 4.19 shows the results for trend analysis for international competitiveness indicators in Burundi. The figure shows that export prices gradually increased from 2002 to 2011 then a gradual decline was recorded as from 2012 to 2015 a with a minor increase in 2016 and 2017. The figure further shows that consumer prices had been steadily increasing over the research period. On the other hand, the results show that the country witnessed negative growth in exports in 2002, 2004, 2009, 2011, 2013, 2014 and 2015, with the other years recording a growth in exports. The data of export growth for 2017 was missing.

4.3.5.4 Investment Climate
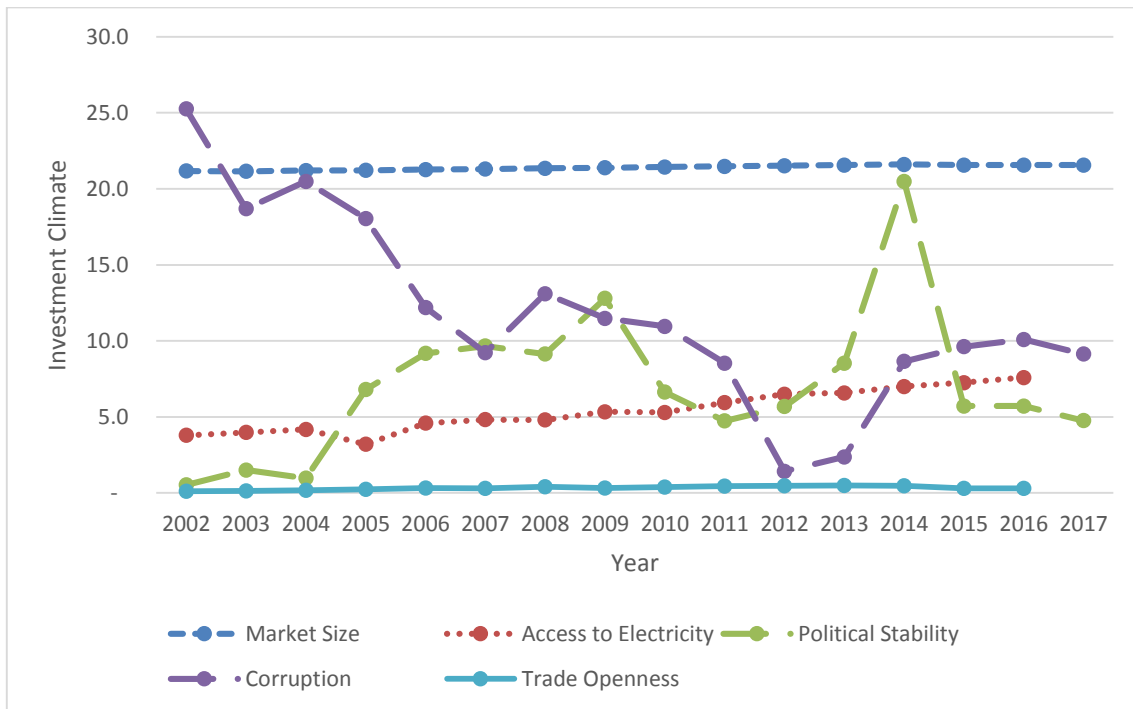
Figure 4.20: Trend Analysis for Investment Climate of Burundi

Source: Researcher (2019)

Figure 4.20 shows that corruption in Burundi had been steadily increasing all through from 2002 up to 2013 when a gradual decline was recorded from 2013 al through to 2017. The results also indicate that the country recorded period of less political stability in between 2002 and 2004, between 2010 and 2013 and from 2015 all through to 2017. However, the country has recorded a gradual growth in the market size (GDP), electricity supply and trade openness over the study period.

4.3.6 Cross Country Trend Analysis

4.3.6.1 FDI Inflows in the Five East Africa Partner States
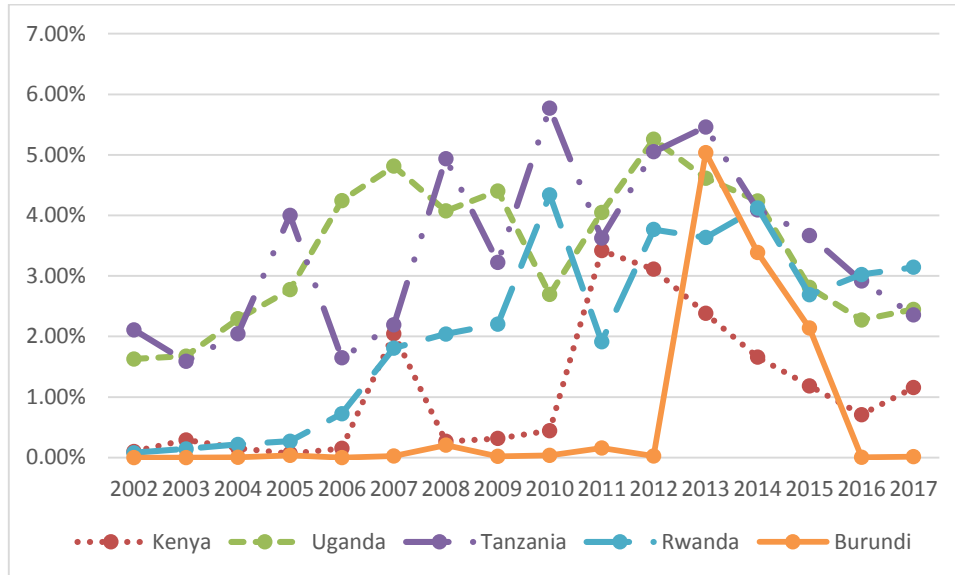
Figure 4.21: Trend Analysis for FDI Inflows in the Five East Africa Partner States
Source: Researcher (2019)

Figure 4.21 shows that Tanzania recorded a steady increase in FDI inflow during the study period having the highest FDI inflow in the EAC in 2013. On the other hand Burundi reported the lowest FDI inflow among the five partner states with the study period. Kenya and Uganda had huge fluctuations in FDI inflow within the study period. Rwanda reported a steady gradual increase of FDI inflow within the study period.

4.3.6.2 Tax holidays in the Five East Africa Partner States

Figure 4.22 shows the tax holiday period for Tanzania and Rwanda changed during the study period while Kenya, Uganda and Burundi did not change their tax holiday period during the study period.

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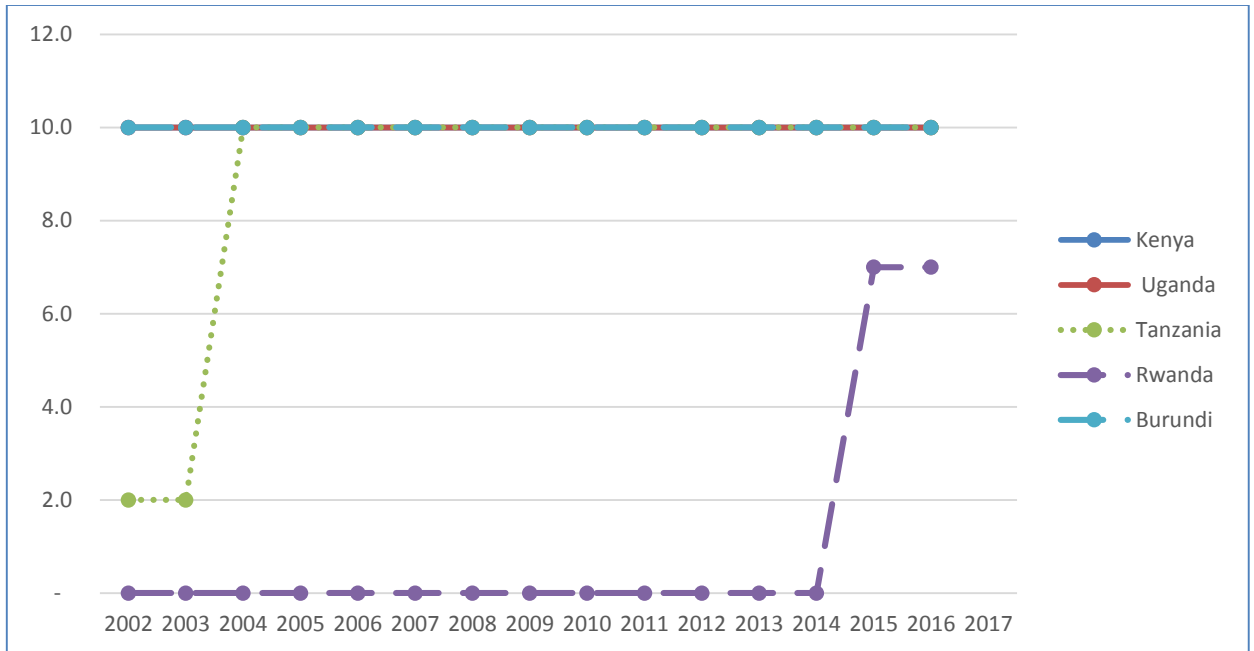
Figure 4.22: Trend Analysis for Tax Holidays in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.3 Investment Allowances in the Five East Africa Community Partner States

Figure 4.23 shows investment allowances of the five East Africa Community partner states have varied for 16 years from 2002 to 2017. Burundi recorded the biggest change from a high of 43.5 to 20. On average Rwanda gave the lowest rate of investment allowances to investors during the study period. While Kenya on average gave the highest investment allowances to investors during the study period.
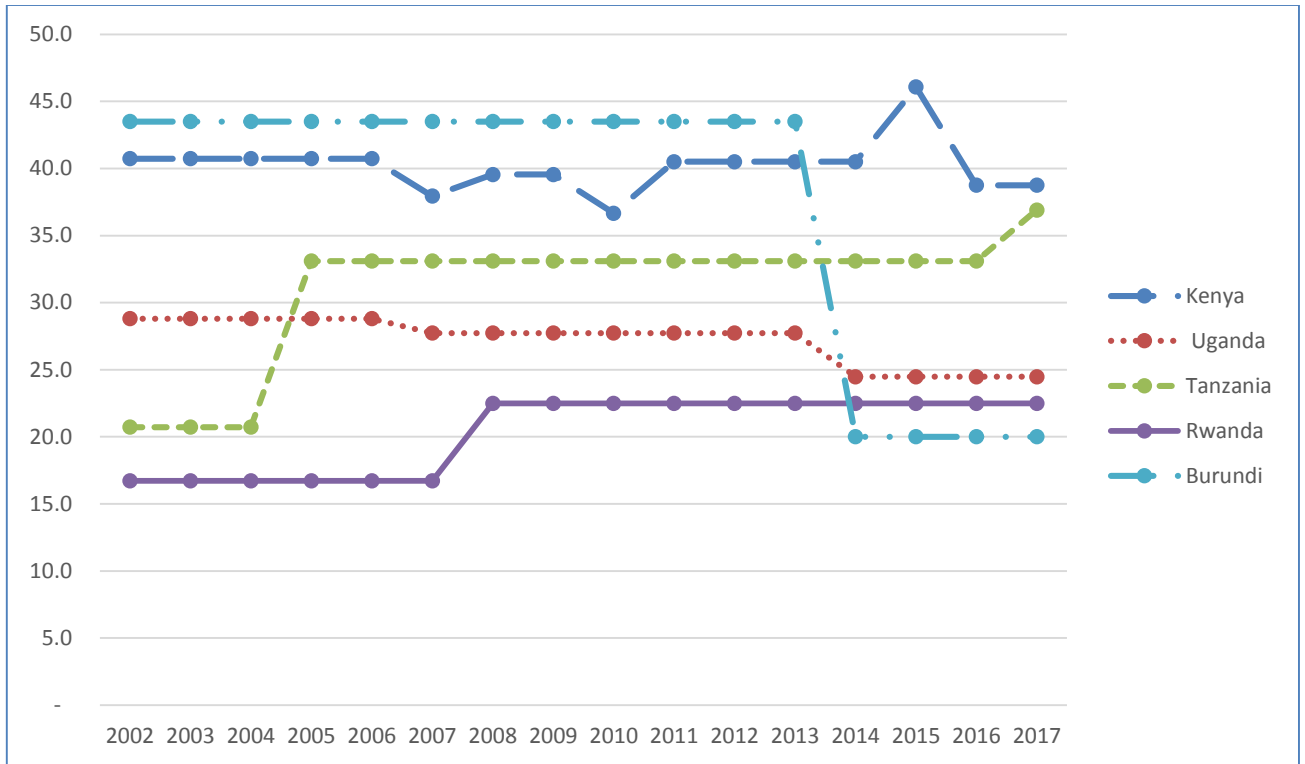
Figure 4.23: Trend Analysis for Investment Allowances in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.4 Period of losses carried forward in the Five East Africa Partner States

Figure 4.24 shows period of losses carried forward varied for Kenya and Burundi while Uganda and Tanzania maintained a period of ten years throughout the study period. Kenya changed from ten years to four years then to nine years. Rwanda maintained a period of five years during the study period.
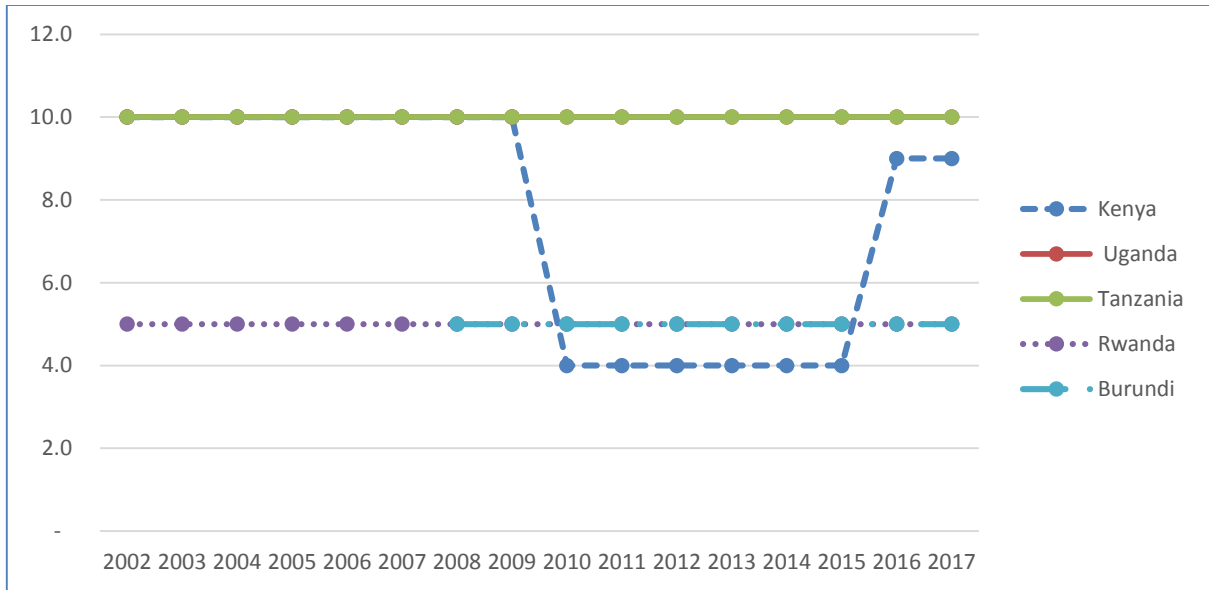
Figure 4.24: Trend Analysis for Period of Losses Carried Forward in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.5: Export Prices in the Five East Africa Community Partner States

Figure 4.25 shows export prices in the five Africa Community partner states. The figure shows that over the study period Rwanda recorded on average the highest export prices, followed by Tanzania, Burundi, Uganda and Kenya in that order.

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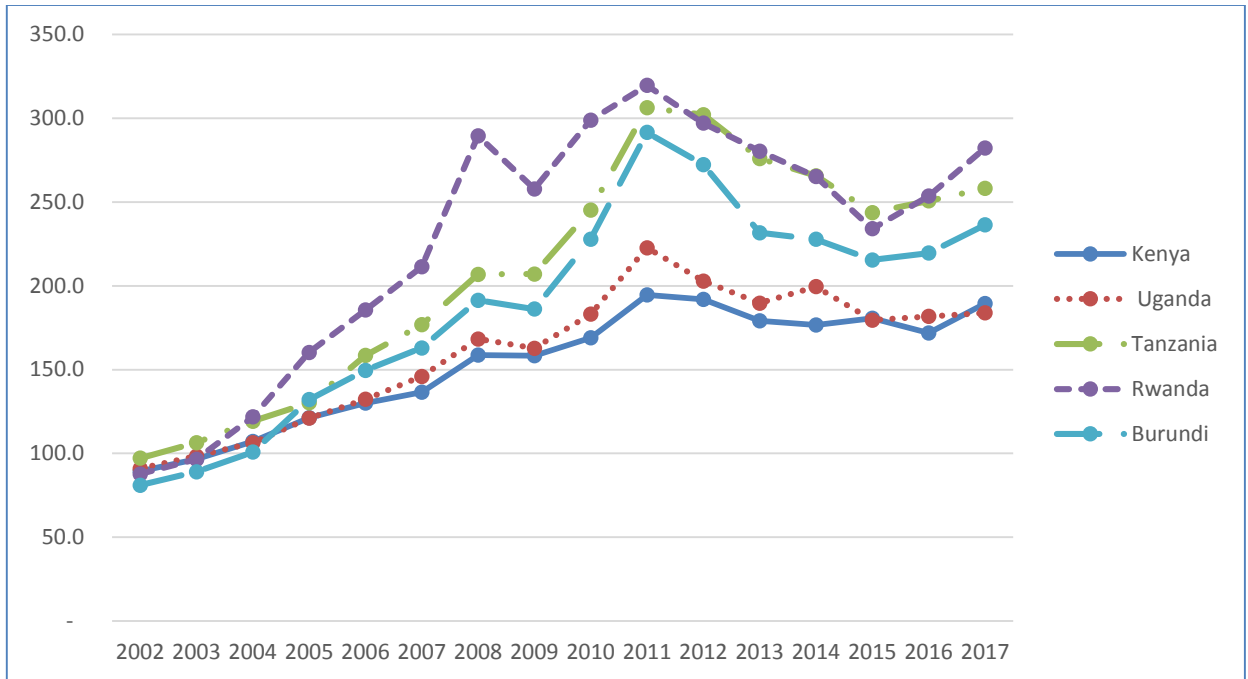
Figure 4.25: Trend Analysis for Export Prices in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.6 Consumer Prices in the Five East Africa Partner States

Figure 4.26 shows consumer prices in the five East Africa Community partner states comparing the level of inflation among the countries. As it can be seen in the figure the level of inflation in the five countries did not differ too much during the study period. On average Tanzania recorded the highest rate of inflation during the study period while Rwanda had the least level of inflation.
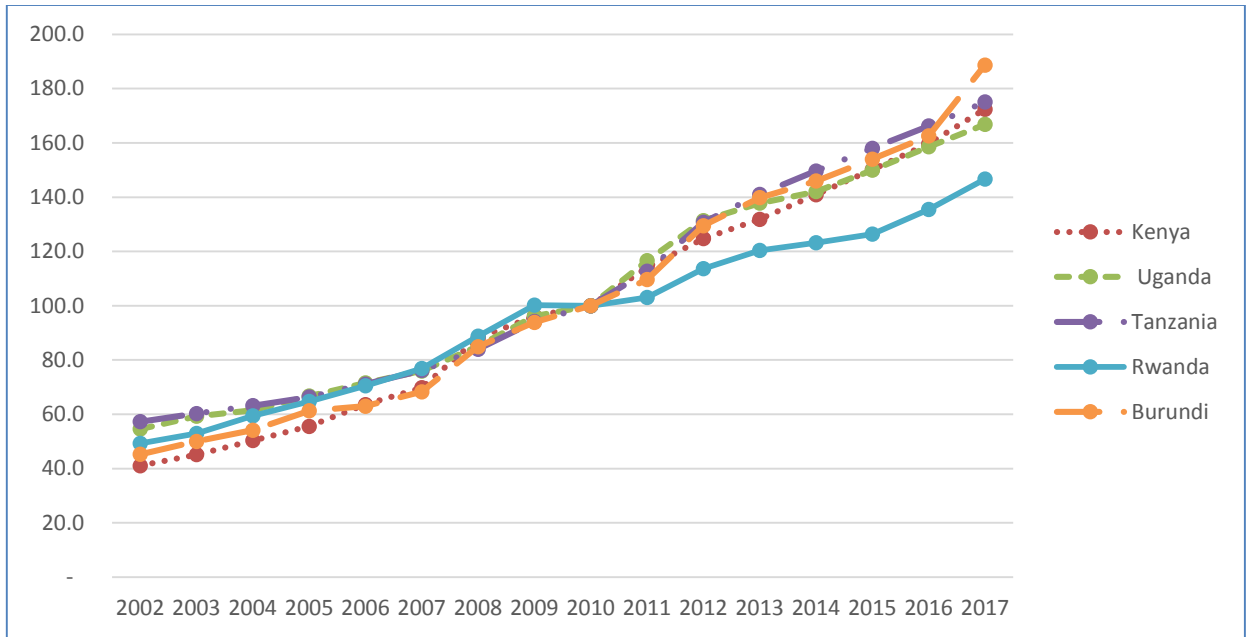
Figure 4.26: Trend Analysis for Consumer Prices in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.7 Export Growth in the Five East Africa Partner States

Figure 4.27 shows export growth in the five East Africa Community partner states. The figure indicate a lot of fluctuation in export growth in the five countries. With a country like Burundi recording negative growth 2002 but high export growth in 2003. Uganda recorded high export growth in 2008 but registered huge drop in 2009. Similarly Rwanda registered high export growth in 2007 but performed dismally in 2008.Tanzania and Kenya oscillation were not as high compared to those of Burundi, Rwanda and Uganda.
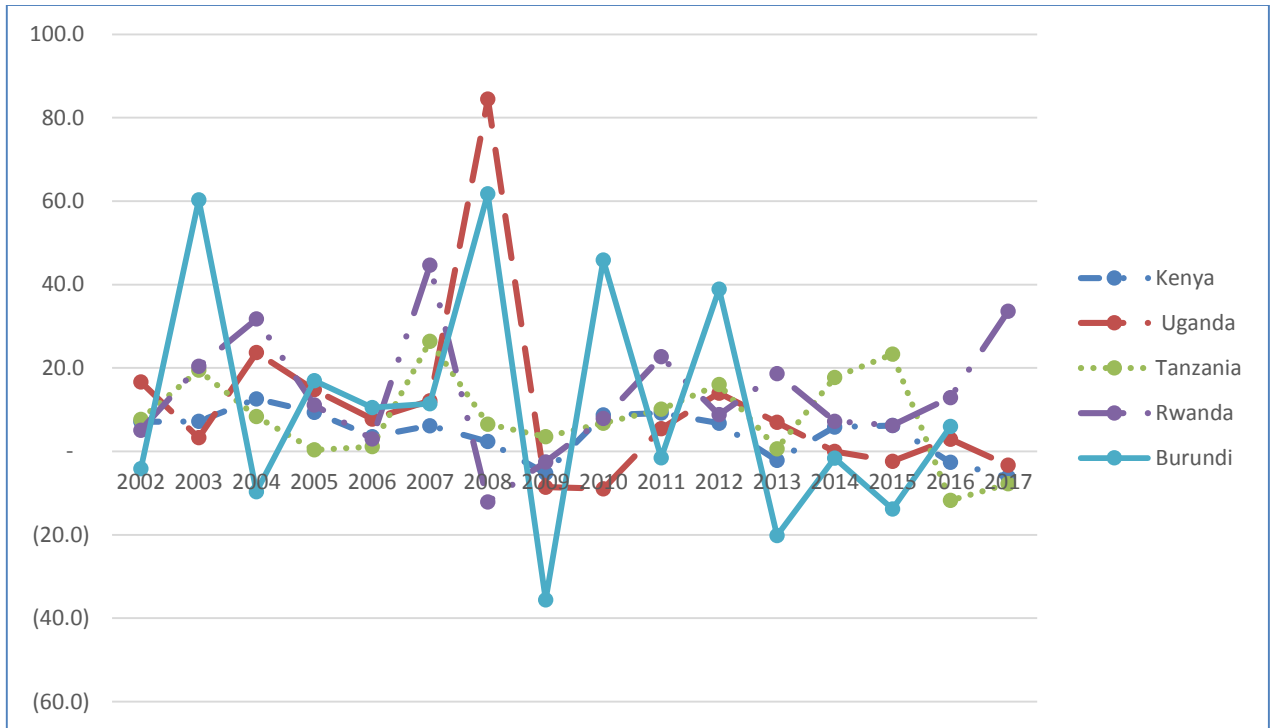
Figure 4.27: Trend Analysis for Export Growth in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.8 Market Size for the Five East Africa Partner States

Figure 4.28 shows market size in the five East Africa Community partner states. The figure indicate that Kenya had the largest market size followed by Tanzania, Uganda, Rwanda and Burundi in that order over the study period. The market size of Burundi increased steadily from 2002 to 2014 then it decreased from 2015 to 2017. The other four countries Kenya, Tanzania, Uganda and Rwanda had their economy expanding steadily over the study period.
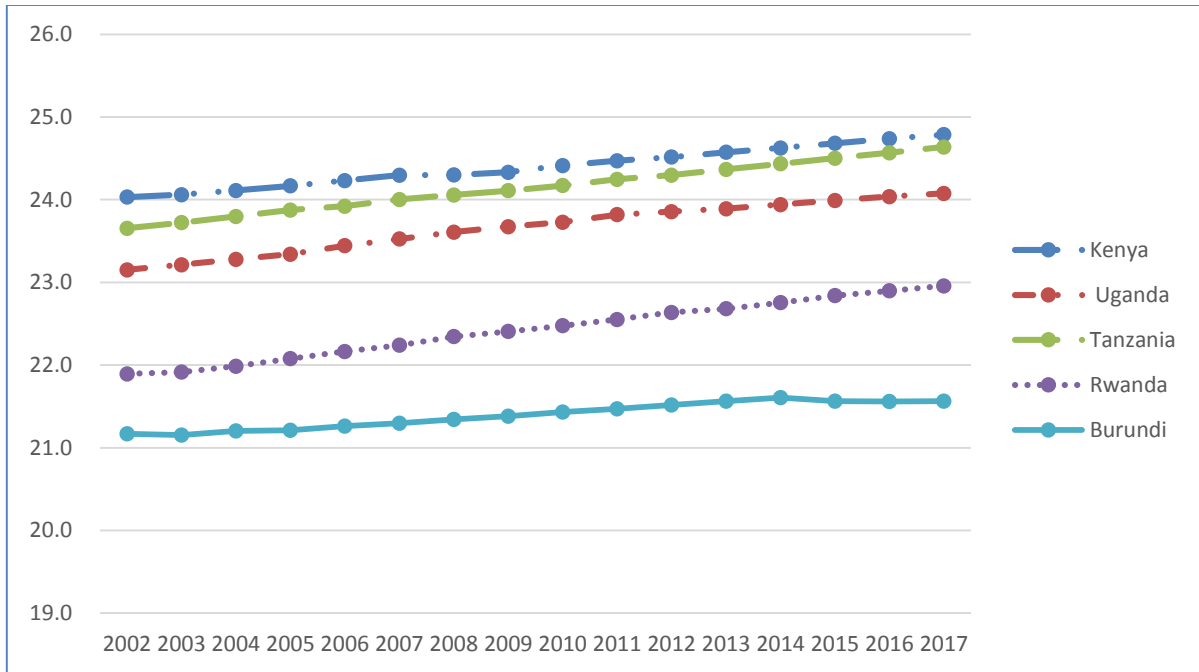
Figure 4.28 Trend Analysis for Market Size in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.9 Electricity Supply for the Five East Africa Partner States

Figure 4.29 shows Electricity supply in the five East Africa Community partner states. The figure indicate that Kenya had exponential growth in electricity supply compared to other four countries. Burundi maintained roughly the same level of electricity supply with marginal increase from 2012 to 2017. Tanzania, Uganda and Rwanda steadily increased their level of electricity supply with a sharp increase from 2013 to 2017.
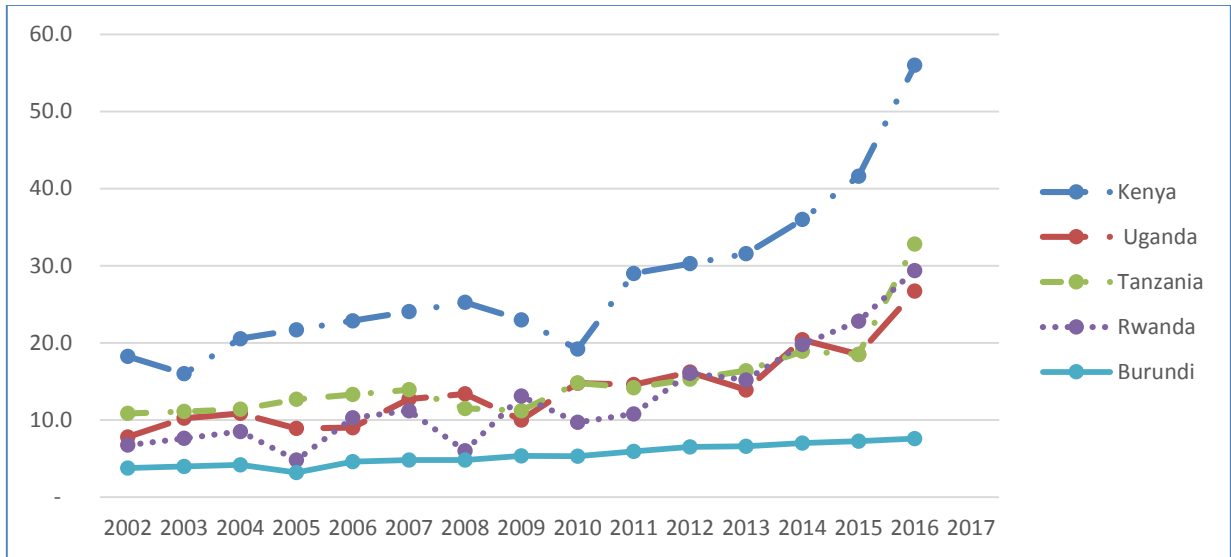
Figure 4.29 Trend Analysis for Electricity Supply in the Five East Africa Partner States.

Source: Researcher (2019)

4.3.6.10 Political Stability for the Five East Africa Partner States

Figure 4.30 shows political stability in the five East Africa Community partner states. Rwanda and Tanzania registered the highest level of stability comparatively during the study period. While Burundi was the most unstable country politically.
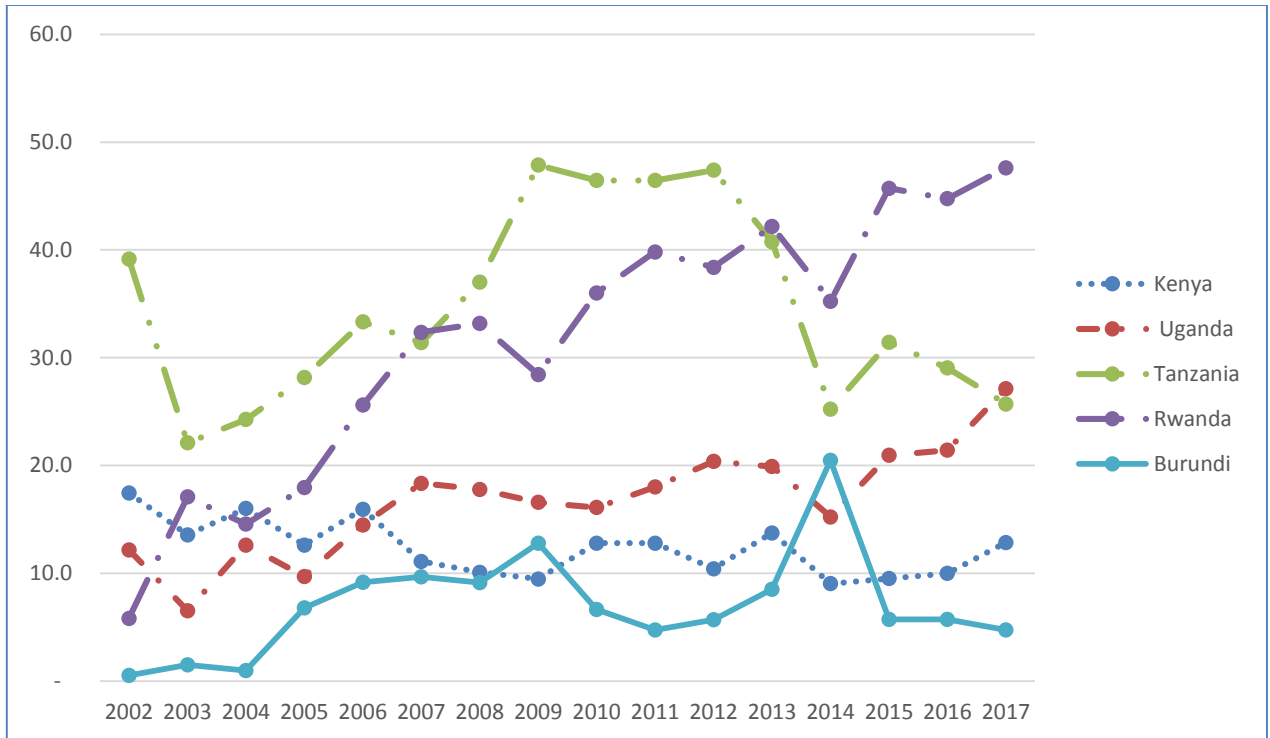
Figure 4.30 Trend Analysis for Political Stability in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.11 Corruption in the Five East Africa Partner States

Figure 4.31 shows corruption in the five East Africa Community partner states. Rwanda was the least corrupt country during the study period followed by Tanzania. As per figure 4.31 Burundi was the most corrupt country among the East Africa Community partner states during the study period. The levels of corruption increased steadily in Kenya and Uganda from 2002 to 2017.
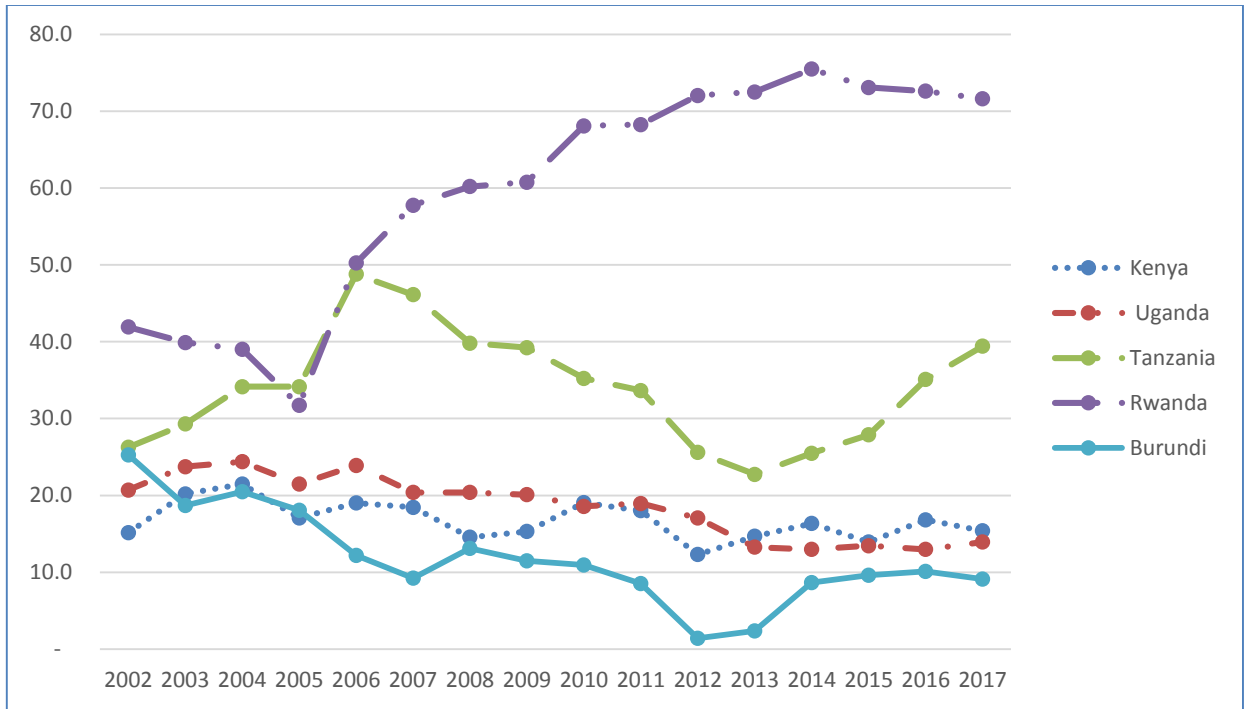
Figure 4.31 Trend Analysis for Corruption in the Five East Africa Partner States

Source: Researcher (2019)

4.3.6.12 Trade Openness for the Five East Africa Partner States

Figure 4.32 shows trade openness in the five East Africa Community partner states.

As figure 4.32 shows Kenyan economy was most opened during the study period, followed by Tanzania. Burundi had the most closed economy amongst the five East Africa Community partner states. This means that Kenyan economic activities are open to international community and there is free movement of funds across the border. On the other hand, Burundi economic activities are not open to the outside world with little imports and exports.
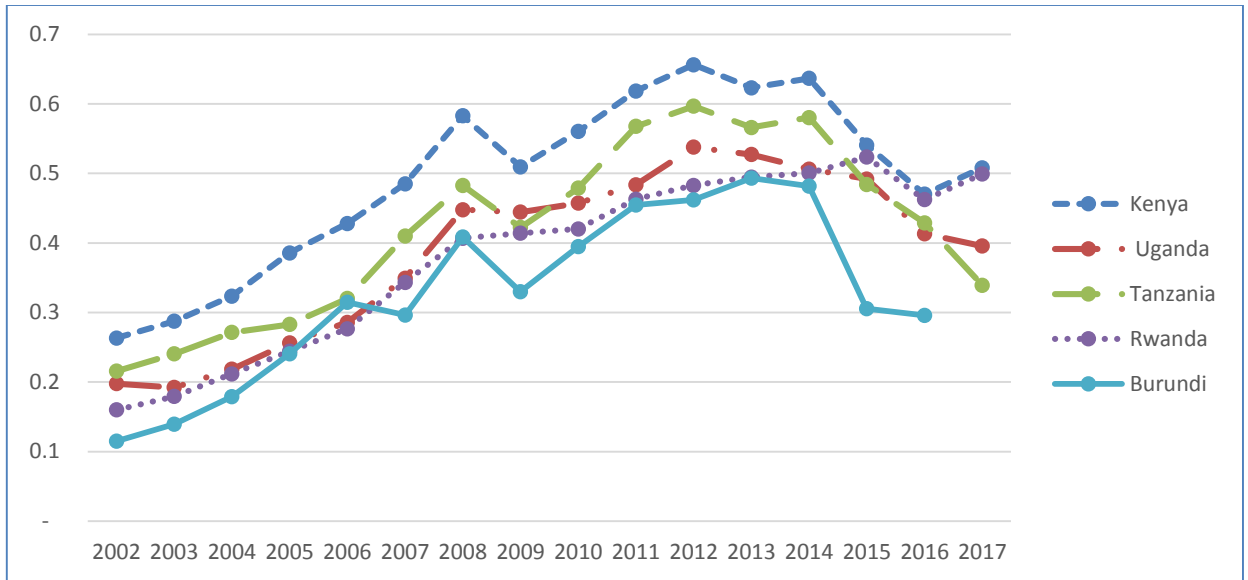
Figure 4.32 Trend Analysis for Trade Openness in the Five East Africa Partner States

Source: Researcher (2019)

4.4 Correlation Analysis

Correlation analysis was carried out to determine the strength and the nature of the relationship between the study variables. The Karl Pearson correlation coefficient was used in this study to determine the correlation among the study variables. Table 4.8 shows the results.

Table 4.8: Correlation Matrix

	FDI inflows	Tax holiday	Investment allowances	Period of losses carried forward	Export Prices	Consumer prices	Export Growth	Market size	Electricity supply	Political stability	Corruption	Trade openness
FDI inflows	1											
Tax holiday	0.078	1										
Investment allowances	-0.240*	0.663*	1									
Period of losses carried forward	0.279*	0.466*	0.130	1								
Export Prices	0.425*	-0.196	-0.161	-0.347*	1							
Consumer prices	0.329*	0.178	-0.089	-0.185	0.668*	1						
Export Growth	-0.046	-0.087	-0.046	-0.065	-0.044	-0.231*	1					
Market size	0.374*	0.313*	0.116	0.614*	-0.006	0.242*	-0.169	1				
Electricity supply	0.090	0.195	0.186	0.045	0.092	0.481*	-0.175	0.720*	1			
Political stability	0.565*	-0.356*	-0.420*	0.114	0.556*	0.181	0.021	0.302*	0.091	1		
Corruption	0.237*	-0.728*	-0.525*	-0.249*	0.381*	-0.073	0.099	-0.049	-0.014	0.723*	1	
Trade openness	0.456*	0.211	0.173	-0.142	0.645*	0.671*	-0.096	0.516*	0.579*	0.315*	-0.006	1

Source: Researcher (2019)

4.4.1 Foreign Direct Investments and Tax Incentives

The results show that there is a very weak and positive but insignficant correlation (0.078) between tax holiday and FDI while investment allowance has a weak, negative correlation (-0.240) with FDI. On the other hand, there is a weak and positive correlation between the period of period of losses carried forward (0.279) and FDI inflows.

4.4.2 Foreign Direct Investments and International Competitiveness

According to the findings on Table 4.8, FDI has moderate and positive correlation with export prices (0.425) while consumer prices show a weak and positive correlation (0.329) with FDI. Export growth indicate a very weak and negative correlation (-0.046) with FDI inflows.

4.4.3 Foreign Direct Investments and Investment Climate

Based on the results on Table 4.8, there is a weak and positive correlation between FDI and market size (0.374) while electricity supply registered a very weak (0.09) correlation with FDI. Political stability shows a moderate association (0.565) with FDI. Corruption has weak correlation (0.237) with FDI at the same time trade openness registered a moderate association with FDI of (0.456).

4.4.4 Tax Incentives and International Competitiveness

Table 4.8 indicates that there is a weak and negative correlation between tax holiday and export prices (-0.196) and a very weak negative association between export growth (-0.087) and tax holiday. There is a weak and positive correlation (0.178) between tax holiday and consumer prices. The results further, shows that there is a weak and negative correlation between investment allowances and export prices (-0.161). In addition, there exist a very weak negative association between consumer prices (-0.089) investment allowances. Export growth shows a very weak negative (-0.046) correlation with investment allowances. Further, according to the finding, there is a weak and negative correlation between the period

of period of losses carried forward and export prices (-0.347). A weak negative correlation exist between consumer prices (-0.185) and the period of period of losses carried forward. Export growth registered a very weak negative association (-0.065) with period of period of losses carried forward.

4.4.5 Tax Incentives and Investment Climate

The findings indicate that there is a weak positive correlation between tax holidays and market size (0.313), electricity supply and tax holiday (0.195), trade openness and tax holiday (0.211) but a weak negative correlation between tax holiday and political stability (-0.356). However, there is a strong negative correlation between tax holiday and the corruption index (-0.728). On the other hand, market size (0.116), electricity supply (0.186) and trade openness (0.173) have a very weak correlation with investment allowances. While corruption (-0.525) and political stability (-0.420) have a moderate negative correlation with investment allowances. The findings also found that there is a strong and positive correlation between market size and the period of period of losses carried forward (0.614) while electricity supply (0.045), political stability (0.114) have a very weak and positive correlation with the period of period of losses carried forward.   Trade openness has a very weak negative (-0.142) correlation with the period of period of losses carried forward while corruption (-0.249) has a weak and negative correlation with the period of period of losses carried forward.

4.4.6 International Competitiveness and Investment Climate

The findings indicate that export prices were not statistically significance   and had a very weak negative correlation (-0.006)   with market size while electricity supply had a very weak (0.092) and not statistically significance   positive correlation with export prices. Political stability (0.556) and corruption (0.381) had moderate positive statistically significance association with export prices, while trade openness (0.645) had strong statistically significance positive correlation with export prices. The results further shows that market size (0.242) had a weak positive statistically significance correlation with consumer prices. Electricity supply (0.481) had a moderate positive statistically significance correlation with consumer prices while trade openness (0.671) had a strong positive statistically significance correlation with consumer prices. On the other hand political stability (0.181) had a very weak positive not statistically significance association with consumer prices. There was weak, negative and not statistically significance correlation between consumer prices and corruption (-0.073). Finally, the results indicates that there is weak, negative and not statistically significance correlation between market size (-0.169), electricity supply (-0.175) and   trade openness (-0.096) with export growth. A weak and positive correlation between political stability (0.021) and corruption (0.099) with export growth was established.

4.5 Chapter Summary

This chapter presented the descriptive analysis results comprising of summary statistics for individual countries and a combined summary for the five East Africa community member states. The chapter also presented the trend of the variables per country and finally the

correlation results among the research variables. The study used secondary data, which was collected from the year 2002 to 2017 thus generating a 16 years period, and 80 data points from the five EAC partner states.

The summary results revealed that the mean values for FDI inflow to GDP were 0.0109 for Kenya, 0.0339, in Uganda, 0.0342 in Tanzania, 0.0213 in Rwanda and 0.0079 in Burundi and the overall mean was 0.0220, which indicated that FDI contributes to 2.2% to the GDP of the East Africa partner states. The mean values also show that Tanzania had the highest FDI levels of 3.42% followed by Uganda with 3.39% with Rwanda being third with 2.13% while Kenya had 1.09% and Burundi with 0.79% were fourth and fifth respectively. The remarkable performance of Tanzania in attracting FDI can be attributed to its good investment climate. Tanzania has maintained a stable political environment over the study period as compared to othe countries like Uganda, Burundi and Kenya.

With regard to tax holiday Kenya, Uganda and Burundi had not changed their period of tax holidays, which had remained 10 years throughout the study period while Rwanda introduced tax holidays in 2015 with Tanzania changing its tax holiday from 2 years in 2004 to 10 years. On investment allowances, average value for investment allowance was 40.18% for Kenya, 27.25% for Uganda, 31.01% for Tanzania, 20.34% for Rwanda, 37.63% for Burundi and the average are rate of investment allowances for the countries was 31.2815% which means on average 31.2815% of investments allowances are offered in various sectors in EAC partner states. Kenya had the highest percentage followed by Burundi, Tanzania, Uganda and then Rwanda in that order. For the period of period of losses carried

forward, the period in Tanzania and Uganda was indefinite while Kenya change from indefinite to 4 years then 9 years with Rwanda and Burundi having a period of 5 years respectively.

The descriptive statistics for international competitiveness show that the average value for export prices were 153.21 for Kenya, 160.56 for Uganda, 209.35 for Tanzania, 227.56 for Rwanda, 188.46 for Burundi and the average export unit price index for the five countries was 187.8268 with Rwanda having the highest value and Kenya the least value. The results show that the mean values for consumer prices were 100.21 for Kenya, 104.61 for Uganda, 106.61 for Tanzania, 95.73 for Rwanda, 103.18 for Burundi and average value of consumer prices in the five countries was 102.0669 with Tanzania having the highest mean value of consumer prices and Rwanda the lowest during the study period. Additionally, the mean values for export growth were 4.31 for Kenya, 10.56 for Uganda, 8.04 for Tanzania, 13.72 for Rwanda, 11.01 for Burundi and the average export growth value for the five countries was 9.5090 with Rwanda having the highest value of export growth and Kenya recording the least respectively.

The descriptive results for Investment climate show that the average values for market size as measured using GDP were 24.4 for Kenya, 23.66 for Uganda, 24.15 for Tanzania, 22.43 for Rwanda, 21.39 for Burundi and the average value for the five countries being 23.2048 with Kenya having the highest values and Burundi the least value. The average values for electricity supply were 27.68 for Kenya, 13.87 for Uganda, 15.12 for Tanzania, 12.80 for Rwanda, 5.39 for Burundi and the average value for electricity supply for the five countries

was 14.9731 with Kenya having the highest mean value and Burundi the least mean value. The average values for political stability index were 12.34 for Kenya, 16.71 for Uganda, 34.74 for Tanzania, 31.55 for Rwanda, 7.05 for Burundi and the mean value of 20.4784 with Tanzania being the most politically stable country and Burundi being the least stable. The average values for corruption index were 16.74 for Kenya, 18.52 for Uganda, 33.93 for Tanzania, 59.7 for Rwanda, 11.83 for Burundi and the mean index of 28.1433 for the five countries with Rwanda being the least corrupt country and Burundi being the most corrupt country among the East Africa partner states. The mean values for trade openness were 0.49 for Kenya, 0.39 for Uganda, 0.42 for Tanzania, 0.38 for Rwanda, 0. 33 for Burundi and the average value was 0.4021 being the average value for the five countries with Kenya having the highest mean value and Burundi having the lowest mean value.

The results of correlation analysis revealed that tax holiday, period of losses carried had weak positive correlation with FDI while investment incentive had a weak negative correlation with FDI. Export prices, consumer prices market size, electricity supply, political stability, corruption and trade openness had a positive correlation with FDI while export growth had a negative correlation with FDI inflows. Export prices and export growth had a weak negative correlation with tax holidays while consumer prices had a weak positive correlation with tax holidays. Investment allowances and period of period of losses carried forward had a weak negative correlation with international competitiveness.

The findings indicate that tax holidays had a weak positive correlation with market size, electricity supply and trade openness but a weak negative correlation with political stability. However, there is a strong negative correlation between tax holiday and the corruption index.

On the other hand, investment allowances had weak positive correlation with   market size, electricity supply and trade openness. Corruption and political stability had a moderate negative correlation with investment allowances. The findings also found that period of losses carried forward   had a   strong and positive correlation with market size. According to the current study the electricity supply and political stability have a weak and positive correlation with the period of period of losses carried forward. Trade openness and corruption had a weak negative correlation with the period of period of losses carried forward.

The findings indicate that export prices had a weak negative correlation   with market size while electricity supply had a weak positive correlation with export prices. Political stability and corruption   had moderate positive   association with export prices, while   trade openness had strong positive correlation with export prices. The results further shows that market size had a weak positive correlation with consumer prices. Electricity supply had a moderate positive correlation with consumer prices while trade openness had a strong positive correlation with consumer prices. On the other hand, political stability   had a weak positive association with consumer prices.   There was weak, negative correlation between consumer prices and corruption. Finally, the results indicates that there is weak, negative correlation between market size, electricity supply and   trade openness with   export growth. A weak and positive correlation between political stability and corruption with export growth was established.

CHAPTER FIVE

HYPOTHESIS TESTING AND DISCUSSION OF FINDINGS

5.1 Introduction

Chapter five presents the findings of the panel diagnostic tests, which comprised of poolability test, unit root test, multicollinearity test, Hausman test, autocorrelation, heteroscedasticity and normality tests. The chapter also presents the results on hypothesis testing which involved testing the four hypotheses formulated by the study. Hypotheses testing were carried out using the pooled OLS regression models. Discussions of the research findings is also carried out and finally the chapter presents a summary of research findings.

5.2 Panel Diagnostic Tests

Diagnostic tests entail a set of procedures that are used to assess the validity of the ordinary least squares method in a number of ways. The following subsection discusses the results from diagnostic tests.

5.2.1 Test for Multicollinearity

Multicollinearity arises when the predictor variables are closely associated with one another predictor variables in a model can accurately be predicted from the others. When the level of multicollinearity increases the models coefficients becomes unstable leading to inflated standard errors. (Mahadeva & Robinson, 2004). The variance inflation factors and tolerance levels were used to assess for multicollinearity. Table 5.1 shows the results

Table 5.1: Test for Multicollinearity

Variable	VIF	1/VIF
Export Index	10.34	0.096682
Consumer Prices	9.01	0.110994
Market Size	8.77	0.114056
Corruption	7.05	0.141865
Electricity supply	6.42	0.155872
Trade Openness	6.17	0.162036
Tax Holiday	5.36	0.186681
Investments Allowances	4.92	0.203449
Political Stability	4.84	0.206541
Period of losses carried forward	4.36	0.229446
Export Growth	1.10	0.912184
Mean VIF	6.21	

Source: Researcher (2019)

The multicollinearity results on table 5.1 shows that the VIF values for export index, consumer prices, market size, corruption, electricity supply, trade openness and tax holiday were greater than five. This suggests that these variables are severely related indicating presence of severe multicollinearity. The results also show that the other variables did not exhibit multicollinearity since their VIF values of less than 5 respectively. To deal with the problem of multicollinearity the study transformed the variables that caused severe multicollinearity. Table 5.2 shows the revised multicollinearity results.

Table 5.2: Multicollinearity Test after Variable Transformation

Variable	VIF	1/VIF
Market Size	5.95	0.168182
Electricity supply	3.75	0.266733
Period of losses carried forward	3.02	0.331369
Political Stability	2.81	0.355426
Export Index	2.78	0.359328
Tax Holiday	2.32	0.431680
Consumer Prices	1.61	0.621686
Trade openness	1.54	0.650194
Export Growth	1.33	0.753962
Corruption	1.20	0.833598
Investments Allowances	1.17	0.851929
Mean VIF	2.50	

Source: Researcher (2019)

The results on table 5.2 shows that after transforming the variables by first differencing export index, consumer prices, corruption, electricity supply, trade openness and tax holiday had VIF value less than 5. This implied that variable transformation by first differencing reduced multicollinearity. However, even with transformation, market size remained with VIF that was greater than 5 hence the variable was dropped. The dropping technique has been employed by various authors among them Njagi (2017) who dropped the variables which had the highest VIF values.

5.2.2 Panel Unit Root

The study used panel data thus the need to determine whether the study variables were stationary or non-stationary. According to Baltagi (2005) whenever there is a stationarity series, finite variance and uniform oscillations from the mean will be observed. To test for panel unit root the study employed the Levin-Liu- Chu (2002) and Pesaran's simple panel unit root tests. Table 5.4 shows the panel level stationarity results.

Table 5.3: Panel Unit Root

Variable	Level	First Difference	Order of Integration
FDI Inflows	-0.365 (0.358)	-1.454 (0.073)	I(1)
Export Index	-3.1940 (0.0007)		I(0)
Consumer Prices	2.4985(0.9938)	-4.5846 (0.0000)	I(1)
Market Size	-2.4780 (0.0066)		I(0)
Corruption	-1.2459 (0.1064)	-5.8458 (0.0000)	I(1)
Electricity supply	-2.104 (0.018)		I(0)
Trade Openness	-0.523 (0.301)	-2.432 (0.007)	I(1)
Investments Allowances	-1.2754 (0.1011)	-3.7732 (0.0001)	I(1)
Political Stability	-1.3211 (0.0932)		I(0)
Export Growth	-1.883 (0.030)		I(0)

P value in the parenthesis

Source: Researcher (2019)

Table 5.4 indicates results of the panel unit root. The null hypothesis stated that the panels contain unit root and the alternative being an indication of stationarity. The results shows that export index, market size, electricity supply, political stability and export growth were all stationary in levels implying that they were integrated of order zero. FDI inflows, consumer prices, corruption, trade openness and investments allowances were all stationary after first differencing implying that they were integrated of order one. The study could not conduct unit root for tax holiday and period of losses carried forward since these variables were constant or nearly constant for the period under study. To ensure non-stationarity is accounted for in further analysis, the study used the first difference of the variables that were integrated of order one.

5.2.3 Hausman Test

Panel data was used in this study. The major models for estimating panel data include the pooled ordinary least squares method, the random effects (RE) model and the fixed effects (FE) model. The random effects models treat individual and time specific effects as an additional source of random variation while the fixed effects model generalizes the constant intercept and slope model by allowing the intercept to vary across individual and through time (Baltagi, 2005). The Hausman test is usually applied to determine which of the two models (FE or RE) is most appropriate. The Hausman test results showed that the Chi Square was 0.37 with a P value of 1. This finding implied that the rejection of the null hypothesis that stated that difference in coefficients are not systematic. The data therefore fits a random effects model rather than the fixed effects model.

Table 5.4: Hausman Test

Test: Ho: difference in coefficients not systematic	
Chi2 (11) = (b-B)'[(V_b-V_B)^(-1)](b-B)	0.37
Prob >Chi2	1.0000

Source: Researcher (2019)

5.2.4 Poolability Test

The study used Breusch and Pagan Lagrangian multiplier (LM) test to assess whether pooled

OLS regression would the appropriate model or random effects model (Wooldridge, 2015).

The study found that that the Chi bar Square had a value of 0.00 with a p value of 1 impying

the rejection of the null hypothesis of random effects model. This finding suggested that

pooled OLS regression was the most appropriate given the data.

Table 5.5: Poolability Test

FDI	Var	SD= Square root (Var)
i	0.0001845	0.0135828
e	0.0002067	0.0143759
u	0	0

<div align="center">Test: Var (u) =0
Chibar2 (01) = 0.00
Prob > Chibar2 = 1.0000</div>

Source: Researcher (2019)

5.2.5 Test for Autocorrelation

 Panel data and time series data often suffer from serial correlation (autocorrelation). Serial

correlation happens when error terms from dissimilar periods are linked. That is errors

from prior period are carried to the succeeding period. Autocorrelatoion can be caused by

model misspecification eg omitted variables in the model.   The autocorrelation affects the

efficiency of OLS estimators and it can lead to erroneously rejecting of the null hypothesis.

Therefore, when serial correlation is present the OLS cannot be said to be BLUE and the test

statistcs cannot be relied on (Wooldridge, 2015). This study employed the Wooldridge test, to assess whether the data had autocorrelation. Table 5.5 shows the results obtained.

Table 5.6: Test for Serial Correlation

Wooldridge test for autocorrelation in panel data	
H0: no first-order autocorrelation	
F (1, 4)	0.128
Prob > F	0.7388

Source: Researcher (2019)

Table 5.6 shows the Wooldridge test for autocorrelation in panel data. To assess for autocorrelation the null hypothesis is tested at 5% level of significance. Therefore, the Chi-square value (0.7388>0.05) is an indication that there is no autocorrelation in the data.

5.2.6 Test for Heteroscedasticity

The Situtions where the variance of the error term is not constant causes heteroscedasticity. Breusch-Pagan/Cook-Weisberg test was used in this study to check for to heteroscedasticity. The results of the test are shown by Table 5.7.

Table 5.7: Test for Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
	Ho: Constant variance
	Variables: fitted values of FDI inflows
	chi2(1) = 13.06
	Prob> chi2 = 0.0003

Source: Researcher (2019)

The results shows that chi square p value (0.0000<0.005) hence an indication that the study data is heteroskedastic. To solve the problem of heteroscedasticity, the study used robust standard errors.greene

5.2.5 Normality Tests

To test for normality of the study variables, the study used Shapiri-Wilk test for normality and the graphical method. The test indicate that the p value of all the variables used in the analysis were less than 0.05 implying the rejection of the null hypothesis that the variables are normally distributed (Table 5.8). Though the results indicate that the variables are not normally distributed, the assumption of normality in classical linear regression focuses on the normality of the error term from the regression and not the individual variables. Thus, this study used the graphical method to test for normality of the error term.

Table 5. 8: Shapiro-Wilk W Test for Normal Data

Variable	Obs	W	V	z	Prob>z
FDI Inflows	73	0.93339	4.242	3.150	0.00082
Tax holiday	75	0.90981	5.872	3.865	0.00006
Investments	75	0.68802	20.312	6.574	0.00000
Losses Carried Forward	74	0.92417	4.884	3.460	0.00027
Export	80	0.96504	2.400	1.918	0.02755
Consumer Prices	75	0.91191	5.735	3.813	0.00007
Export growth	79	0.87550	8.458	4.675	0.00000
Market Size	80	0.89179	7.427	4.394	0.00001
infrastructure	75	0.87594	8.077	4.561	0.00000
Political Stability	80	0.92358	5.245	3.631	0.00014
Corruption	75	0.91651	5.436	3.696	0.00011
Trade openness	74	0.93578	4.136	3.097	0.00098

The distribution of the error term was examined using histogram with a normality line. The normality tests in Figure 5.1 shows that the distribution of the error term follows a bell shape curve. This finding implied that the error term was normally distributed.

Figure 5.1: Test for Normality
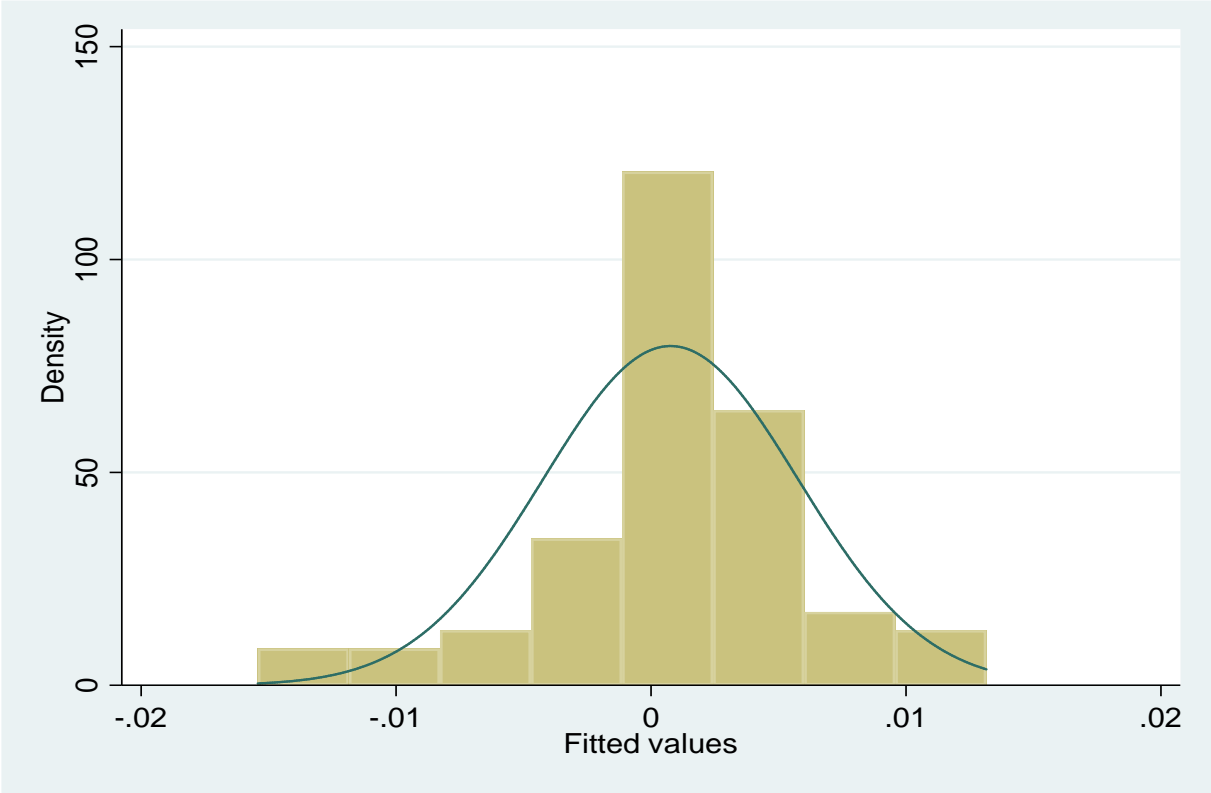
5.3 Hypothesis Testing

5.3.1 Relationship between Tax Incentives and FDI

The study first objective was to determine the relationship of tax incentives on FDI in East Africa Community Partner States. A pooled OLS regression model was used. Tax holidays, investment allowances and the period of losses carried forward were used as proxies for tax

incentives. FDI was measured using the ratio of FDI inflows to real GDP. The study

hypothesis was formulated as follows:

H_1: *The relationship between tax incentives and FDI in EAC partner states is not*

significant.

Table 5.8: Effect of Tax Incentives on FDI

Variables	Coefficients
Tax holiday	-0.0001
	(0.0005)
Investments allowances	0.0008***
	(0.0002)
Period of losses carried forward	-0.0001
	(0.0008)
Constant	0.0029
	(0.0053)
Observations	65
R-squared	0.0501
F (3, 61)	5.16***

Robust standard errors in parentheses   *** p<0.01, ** p<0.05, * p<0.1
Source: Researcher (2019)

The results of the effect of tax incentives on FDI on Table 5.8 shows that the R square value

(R^2) was 0.0501, which indicates that the independent variable indicators, comprising of tax

holiday, investment allowances and the period of period of losses carried forward account

for about 5% of the variation in foreign direct investments. The other percentage 95% was

accounted for by other factors not considered in the model. The results further show that F

statistic value of 5.16 was statistically significant   an indication that jointly, tax holiday,

investment allowances and the period of period of losses carried forward influences foreign

direct investments.

The results further shows that the effect of tax holidays (B = -0.0001) on FDI inflow was negative and statistically insignificant at 5% level of significance while the relationship between investment allowances (B = 0.0008) was positive and statistically significant at 1% level of significance. In addition, the results show that the period of period of losses carried forward (B = -0.0001) had a negative and statistically insignificant at 5% level of significance. These results indicate that tax holidays and period of losses carried forward as indicators of tax incentives do not have a statistically significant influence on foreign direct investment while the investment allowances had a statistically significant influence on FDI inflows among the East Africa Community partner states. Table 5.9 summarizes the results of hypothesis one and the sub hypotheses.

Table 5.9: Summary of Hypothesis 1 Results

Hypothesis	Sub hypothesis	Study findings	Hypothesis test results
The relationship between tax incentives and FDI in EAC partner states is not significant	The relationship between tax holiday and FDI in EAC partner states is not statistically significant	The relationship between tax holidays and FDI inflow is negative and insignificant	Fail to Reject Null
	The relationship between investment allowances and FDI in EAC partner states is not statistically significant	The relationship between investment allowances is positive and statistically significant	Reject null
	The relationship between the period of period of losses carried forward and FDI in EAC partner states is not statistically significant	The period of period of losses carried forward has a negative and insignificant relationship with FDI inflows	Fail to Reject Null

Source: Researcher (2019)

5.3.2 Intervening Effect of International Competitiveness on the Relationship between Tax Incentives and FDI

The second aim was to investigate the intervening effect of international competitiveness on the relationship between tax incentives and FDI in East Africa Community partner states. The indicators for international competitiveness were export prices measured using export unit value index, consumer prices measured using the consumer price index and export growth measured using the export growth ratio. Intervening effect also referred to as mediation is a causal chain effect where by one variable affect second variable and the in turn affect a third variable. Baron and Kenny (1986) proposed a four-step procedure in testing for mediation. At each step significance of coefficients is determined. If one of the steps reveals a nonsignificance relationship then Baron and Kenny argues that mediation is not possible or likely, however MacKinnon, Fairchild and Fritz (2007) this is not always true and that mediation can still be present even if it fails in one of the steps. Thus MacKinnon, Fairchild and Fritz (2007) argues that there is need to calculate the indirect effect and estimate their significance.

To achieve this objective, mediation regression analysis specifically causal mediation analysis using parametric regression models were used to test the intervening effect of international competitiveness on the relationship between tax incentives and FDI in EAC. The study adopted MacKinnon, Fairchild and Fritz (2007) approach that mediation can still be present even if one of the steps failed hence all the four steps were conducted. The study used Paramed command in Stata. The hypothesis of this study this section was:

> H_2: *The intervening effect of international competitiveness in the relationship between tax incentives and FDI in EAC partner states is not significant*

5.3.2.1 Intervening Effect of Export Prices on the Relationship between Tax Holiday and FDI

The results from mediation regression analysis showed that tax holiday and export prices did not statistically influence FDI. However, tax holiday had a negative and statistically significant influence on export prices as shown on table 5.10.

Table 5.10:   Intervening Effect of Export Prices on the Relationship between Tax Holiday and FDI

Dependent	FDI	Export Prices
Variable	**Coefficient**	
Tax Holiday	-.0002523 (.0004363)	-3.235441* (1.891986)
Export Prices	-0.00000636 (.0000284)	
Constant	. 0039999 (.0074495)	210.8139*** (16.78935)
F Test	0.17	2.92*
R-Squared	0.0052	0.0385
Adjusted R-Squared	-0.0254	0.0253
Number of Observations	68	75

The study further tested for the controlled direct effect, natural indirect effect and total effect of export prices on the relationship between tax holiday and FDI. The results showed that export prices did not significantly mediate the relationship between tax holiday and FDI among EAC countries (see table 5.11).

Table 5.11: Direct and Indirect Effects of Export Prices on the Relationship between Tax Holiday and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval] Lower	Upper
cde	-.00025231	.00043629	0.563	-.00110744	.00060282
nie	.00002057	.00009259	0.824	-.00016092	.00020205
te	-.00023174	.00042207	0.583	-.001059	.00059553

cde: controlled direct effect, nie: natural indirect effect, te: total effect

5.3.2.2 Intervening Effect of Consumer Prices on the Relationship between Tax Holiday and FDI

The mediation regression analysis results showed that tax holiday and consumer prices did not statistically influence FDI. However, tax holiday had a positive and statistically significant influence on consumer prices (see table 5.12).

Table 5.12: Intervening Effect of Consumer Prices on the Relationship between Tax Holiday and FDI

Dependent Variable	FDI Coefficient	Consumer Prices
Tax Holiday	-.0002768 (.0004308)	.2180147* (.1279402)
Consumer Prices	.000215 (.000402)	
Constant	.0012954 (.0044307)	5.880407*** (1.144536)
F Test	0.29	2.90*
R-Squared	0.0088	0.0410
Adjusted R-Squared	-0.0217	0.0268
Number of Observations	68	70

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The study tested for the controlled direct effect, natural indirect effect and total effect of consumer prices on the relationship between tax holiday and FDI. The results showed that consumer prices did not significantly mediate the relationship between tax holiday and FDI among EAC countries (see table 5.13).

Table 5.13: Direct and Indirect Effects of Consumer Prices on the Relationship between Tax Holiday and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval] Lower	Upper
cde	-.00027684	.00043082	0.520	-.00112124	.00056756
nie	.00004688	.00009186	0.610	-.00013317	.00022693
te	-.00022996	.00042154	0.585	-.00105617	.00059625

5.3.2.3 Intervening Effect of Export Growth on the Relationship between Tax Holiday and FDI

The mediation regression analysis results showed that tax holiday and export growth did not statistically influence FDI. Additionally, tax holiday had a negative but statistically insignificant influence on export growth (see table 5.14).

Table 5.14: Intervening Effect of Export Growth on the Relationship between Tax Holiday and FDI

Dependent	FDI	Export Growth
Variable	**Coefficient**	
Tax Holiday	-.0002439 (.0004242)	-.3974671 (.5315377)
Export Growth	-.0000316 (.0000947)	
Constant	.0029976 (.0039772)	12.96687*** (4.716829)
F Test	0.20	0.56
R-Squared	0.0061	0.0076
Adjusted R-Squared	-0.0244	-0.0060
Number of Observations	68	75

The study tested for the controlled direct effect, natural indirect effect and total effect of export growth on the relationship between tax holiday and FDI. The results showed that export growth did not significantly mediate the relationship between tax holiday and FDI among EAC countries (see table 5.15).

Table 5.15: Direct and Indirect Effects of Export Growth on the Relationship between Tax Holiday and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval] Lower	Upper
cde	-.00024388	.0004242	0.565	-.00107531	.00058755
nie	.00001257	.00004121	0.760	-.00006821	.00009335
te	-.00023131	.0004217	0.583	-.00105784	.00059522

5.3.2.4 Intervening Effect of Export Prices on the Relationship between Investments Allowances and FDI

The mediation regression analysis results showed that investment allowances had a positive and significant effect on FDI while export prices did not statistically influence FDI. Additionally, investment allowances had a negative but insignificant effect on export prices (see table 5.16).

Table 5.16:   Intervening Effect of Export Prices on the Relationship between Investments Allowances and FDI

Dependent Variable	FDI Coefficient	Export Prices
Investments Allowances	.0007594* (.000429)	-.5495289 (2.062121)
Export Prices	-0.00000225 (.0000253)	
Constant	.0012363 (.0052028)	194.3383 *** (7.07609)
F Test	1.58	0.07
R-Squared	0.0431	0.0010
Adjusted R-Squared	0.0158	-0.0127
Number of Observations	73	75

The study tested for the controlled direct effect, natural indirect effect and total effect of export prices on the relationship between investment allowances and FDI. The results showed that export prices did not significantly mediate the relationship between investment allowances and FDI among EAC countries (see table 5.17).

Table 5.17: Direct and Indirect Effects of Export Prices on the Relationship between Investments Allowances and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval] Lower	Upper
cde	.0007594	.00042896	0.077	-.00008137	.00160016
nie	1.236e-06	.00001465	0.933	-.00002748	.00002996
te	.00076063	.00042878	0.076	-.00007978	.00160104

5.3.2.5 Intervening Effect of Consumer Prices on the Relationship between Investments Allowances and FDI

The mediation regression analysis results showed that investment allowances had a positive and significant effect on FDI while consumer prices did not statistically influence FDI. Additionally, investment allowances had a positive but insignificant effect on consumer prices (see table 5.18).

Table 5.18: Intervening Effect of Consumer Prices on the Relationship between Investments Allowances and FDI

Dependent	FDI	Consumer Prices
Variable	**Coefficient**	
Investments Allowances	.000753 * (.0004296)	.0892383 (.1553061)
Consumer Prices	.0000842 (.0003258)	
Constant	.0001078 (.0030414)	8.038874 *** (.5329269)
F Test	1.61	0.33
R-Squared	0.0439	0.0045
Adjusted R-Squared	0.0166	-0.0091
Number of Observations	73	75

The study tested for the controlled direct effect, natural indirect effect and total effect of consumer prices on the relationship between investment allowances and FDI. The results showed that consumer prices did not significantly mediate the relationship between investment allowances and FDI among EAC countries (see table 5.19).

Table 5.19: Direct and Indirect Effects of Consumer Prices on the Relationship between Investments Allowances and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval]	
				Lower	Upper
cde	.00075299	.00042958	0.080	-.00008899	.00159497
nie	0.000007515	.00003188	0.814	-.00005497	.00007
te	.0007605	.00042878	0.076	-.0000799	.0016009

5.3.2.6 Intervening Effect of Export Growth on the Relationship between Investments Allowances and FDI

The mediation regression analysis results showed that investment allowances had a positive and significant effect on FDI while export growth did not statistically influence FDI. Additionally, investment allowances had a positive but insignificant effect on export growth (see table 5.20).

Table 5.20: Intervening Effect of Export Growth on the Relationship between Investments Allowances and FDI

Dependent	FDI	Export Growth
Variable	**Coefficient**	
Investments Allowances	.0007621* (.0004317)	.064466 (.6232046)
Export Growth	-.0000233 (.000087)	
Constant	.0010184 (.001714)	9.719706 *** (2.152904)
F Test	1.59	0.01
R-Squared	0.0440	0.0001
Adjusted R-Squared	0.0163	-0.0137
Number of Observations	72	74

The study tested for the controlled direct effect, natural indirect effect and total effect of export growth on the relationship between investment allowances and FDI. The results showed that export growth did not significantly mediate the relationship between investment allowances and FDI among EAC countries (see table 5.21).

Table 5.21: Direct and Indirect Effects of Export Growth on the Relationship between Investments Allowances and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval]	
				Lower	Upper
cde	.00076207	.00043168	0.078	-.00008402	.00160816
nie	-1.499e-06	.00001554	0.923	-.00003196	.00002896
te	.00076057	.00043189	0.078	-.00008593	.00160708

5.3.2.7 Intervening Effect of Export Prices on the Relationship between Period of losses carried forward and FDI

The mediation regression analysis results showed that period of losses carried forward and export prices had a negative and insignificant effect on FDI. However, period of losses carried forward had a negative and significant effect on export prices (see table 5.22).

Table 5.22: Intervening Effect of Export Prices on the Relationship between Period of losses carried forward and FDI

Dependent	FDI	Export Prices
Variable	**Coefficient**	
Period of losses carried forward	-.0002434 (.0006583)	-8.480471*** (2.697279)
Export Prices	-0.0000078 (.0000286)	
Constant	.00416 (.0089676)	258.9369 *** (21.96657)
F Test	0.08	9.89***
R-Squared	0.0024	0.1207
Adjusted R-Squared	-0.0274	0.1085
Number of Observations	70	74

The study tested for the controlled direct effect, natural indirect effect and total effect of export prices on the relationship between period of losses carried forward and FDI. The results showed that export prices did not significantly mediate the relationship between period of losses carried forward and FDI among EAC countries (see table 5.23).

Table 5.23: Direct and Indirect Effects of Export Prices on the Relationship between Period of losses carried forward and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval]	
				Lower	Upper
cde	-.0002434	.0006583	0.712	-.00153367	.00104688
nie	.00006619	.00024332	0.786	-.00041073	.0005431
te	-.00017721	.00061789	0.774	-.00138828	.00103386

5.3.2.7 Intervening Effect of Consumer Prices on the Relationship between Period of losses carried forward and FDI

The mediation regression analysis results showed that period of losses carried forward and consumer prices had insignificant effect on FDI. Additionally, period of losses carried forward had a negative and insignificant effect on consumer prices (see table 5.24).

Table 5.24: Intervening Effect of Consumer Prices on the Relationship between Period of losses carried forward and FDI

Dependent	FDI	Consumer Prices
Variable	Coefficient	
Period of losses carried forward	-.00016 (.0006206)	-.1867124 (.2156733)
Consumer Prices	.0001124 (.0003471)	
Constant	.0010361 (.0060242)	9.706022 *** (1.745108)
F Test	0.10	0.75
R-Squared	0.0028	0.0109
Adjusted R-Squared	-0.0269	-0.0036
Number of Observations	70	70

The study tested for the controlled direct effect, natural indirect effect and total effect of consumer prices on the relationship between period of losses carried forward and FDI. The results showed that consumer prices did not significantly mediate the relationship between period of losses carried forward and FDI among EAC countries (see table 5.25).

Table 5.25: Direct and Indirect Effects of Consumer Prices on the Relationship between Period of losses carried forward and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval]	
				Lower	Upper
cde	-.00016004	.00062063	0.797	-.00137647	.0010564
nie	-.00002098	.00006918	0.762	-.00015658	.00011462
te	-.00018101	.00061771	0.769	-.00139173	.00102971

5.3.2.8 Intervening Effect of Export Growth on the Relationship between Period of losses carried forward and FDI

The mediation regression analysis results showed that period of losses carried forward and export growth had insignificant effect on FDI. Additionally, period of losses carried forward had a negative and insignificant effect on export growth (see table 5.26).

Table 5.26: Intervening Effect of Export Growth on the Relationship between Period of losses carried forward and FDI

Dependent	FDI	Export Growth
Variable	Coefficient	
Period of losses carried forward	-.0001993 (.0006286)	-.4353259 (.7977262)
Export Growth	-.0000233 (.0000912)	
Constant	.0024961 (.0052317)	12.50219 * (6.524328)
F Test	0.08	0.30
R-Squared	0.0023	0.0042
Adjusted R-Squared	-0.0279	-0.0098
Number of Observations	69	73

The study tested for the controlled direct effect, natural indirect effect and total effect of export growth on the relationship between period of losses carried forward and FDI. The results showed that export growth did not significantly mediate the relationship between period of losses carried forward and FDI among EAC countries (see table 5.27).

Table 5.27: Direct and Indirect Effects of Export Growth on the Relationship between Period of losses carried forward and FDI

	Estimate	Std Err	P>z	[95% Confidence Interval]	
				Lower	Upper
cde	-.00019929	.00062863	0.751	-.00143141	.00103282
nie	.00001014	.00004385	0.817	-.00007581	.00009609
te	-.00018915	.00062726	0.763	-.00141859	.00104029

Source: Researcher (2019)

Summary of Hypothesis 2 Results

The study established that international competitiveness (export prices, consumer prices and export growth) does not mediate the relationship between tax incentives and FDI in EAC partner states.

5.3.3 Moderating Effect of Investment Climate on the Relationship between Tax Incentives and FDI

The third aim of this study was to determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states. The moderating effect was determined using the stepwise regression method, which involved two steps as proposed by Baron and Kenny (1986). In the first step (unmoderated), the main effects of the independent variable (tax incentives) on the dependent variable (FDI) was tested.

In the second step (moderated), the effect of the moderating variable (investment climate) and the interaction terms between tax incentives and investment climate (TI*IC) on the dependent variable was tested. To create the interaction term, tax incentives and investment climate indicators were centered first and a single item indicator representing the product of the two measures calculated. The coefficients of the interaction terms indicated the

magnitude of the moderating effect and their sign indicate the direction of the moderating effect. The following hypothesis was formulated for testing.

H_3: *The moderating effect of investment climate in the relationship between tax incentives and FDI in EAC partner states is not significant*

5.3.3.1 Moderating Effect of Investment Climate on the Relationship between Tax Incentives and FDI

The study estimated the moderating effect of electricity supply on the relationship between tax holiday and FDI and found that the coefficient of the interaction between electricity supply and tax holiday (B=-.0000383) was statistically insignificant implying that electricity supply did not affect the relationship between tax holiday and FDI. That is increase or decrease of electricity supply in EAC partner states did not influence the relationship between tax holiday and FDI. Additionally, electricity supply did not have a direct effect on the FDI when controlling for tax holiday (see table 5.28).

Table 5.28: Moderating Effect of Electricity Supply on the Relationship between Tax Holiday and FDI

	Unmoderated	**Moderated**
Variable	**Coefficient**	**Coefficient**
Tax Holiday	-.000227 (.0003642)	.0002808 (.0006276)
Electricity Supply		.0002296 (.0004038)
Interaction between Electricity supply and Tax Holiday		-.0000383 (.0000432)
Constant	.0025586 (.003054)	0.0000018 (.005198)
F Test	0.39	0.68
R-Squared	0.0044	0.0165
Number of Observations	68	68

The study estimated the moderating effect of electricity supply on the relationship between investments allowances and FDI and found that the coefficient of the interaction between electricity supply and investments allowances (B= -.000015) was statistically insignificant

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implying that electricity supply did not affect the relationship between investment allowances and FDI. That is increase or decrease of electricity supply in EAC partner state did not lead to an increase or decrease of FDI inflow. Additionally, electricity supply did not have a direct effect on the FDI when controlling for investment allowances (see table 5.29).

Table 5.29: Moderating Effect of Electricity Supply on the Relationship between Investments Allowances and FDI

	Unmoderated	Moderated
Variable	**Coefficient**	**Coefficient**
Investments Allowances	.0007606*** (.0002097)	.0009958*** (.0002165)
Electricity supply		-.0001652 (.0001454)
Interaction between Electricity supply and Investments Allowances		-.000015 (.0000201)
Constant	.000793 (.0014863)	.0034562 (.0030243)
F Test	13.16***	9.50***
R-Squared	0.0430	0.0612
Number of Observations	73	68

The study estimated the moderating effect of electricity supply on the relationship between period of losses carried forward and FDI and found that the coefficient of the interaction between electricity supply and period of losses carried forward (B= -.0000478) was statistically insignificant implying that electricity supply did not influence the relationship between period of losses carried forward and FDI. That is variations in electicity supply did not have any effect on the relationship between period of losses carried forward and FDI inflow in the EAC partner states. Additionally, electricity supply did not have a direct effect on the FDI when controlling for period of losses carried forward (see table 5.30).

Table 5.30: Moderating Effect of Electricity Supply on the Relationship between Period of Losses Carried Forward and FDI

	Unmoderated	Moderated
Variable	**Coefficient**	**Coefficient**
Period of losses carried forward	-.000181 (.0006233)	.0006748 (.00131)
Electricity supply		.0001601 (.0004564)
Interaction between Electricity supply and Period of losses carried forward		-.0000478 (.0000568)
Constant	.0021266 (.005236)	-.0010054 (.0105741)
F Test	0.08	1.14
R-Squared	0.0013	0.0208
Number of Observations	70	65

The study estimated the moderating effect of political stability on the relationship between tax holiday and FDI and found that the coefficient of the interaction between political stability and tax holiday (B= -0.00000408) was statistically insignificant implying that political stability did not influence the relationship between tax holiday and FDI. That is increase or decrease of political stability in the EAC partner states does not influence the relationship between tax holiday and FDI inflow. Additionally, political stability did not have a direct effect on the FDI when controlling for tax holiday (see table 5.31).

Table 5.31: Moderating Effect of Political Stability on the Relationship between Tax Holiday and FDI

Variable	Unmoderated Coefficient	Moderated Coefficient
Tax Holiday	-.000227 (.0003642)	-.0001253 (.0008527)
Political Stability		.0000241 (.0003361)
Interaction between Political Stability and Tax Holiday		-0.00000408 (.0000407)
Constant	.0025586 (.003054)	.0018551 (.0073301)
F Test	0.39	0.27
R-Squared	0.0044	0.0047
Number of Observations	68	68

The study estimated the moderating effect of political stability on the relationship between investment allowances and FDI and found that the coefficient of the interaction between political stability and investment allowances (B= .0000473) was statistically insignificant implying that political stability did not moderate the relationship between investment allowances and FDI. That is increase or decrease of political stability in EAC partner state does not influence the relationship between investment allowances and FDI inflow. Additionally, political stability did not have a direct effect on the FDI when controlling for investment allowances (see table 5.32).

Table 5.32: Moderating Effect of Political Stability on the Relationship between Investments Allowances and FDI

	Unmoderated	Moderated
Variable	Coefficient	Coefficient
Investments Allowances	.0007606*** (.0002097)	-.0002311 (.0012913)
Political Stability		-0.00000818 (.0001418)
Interaction between Political Stability and Investments Allowances		.0000473 (.0000566)
Constant	.000793 (.0014863)	.0008193 (.0031658)
F Test	13.16***	9.81***
R-Squared	0.0430	0.0479
Number of Observations	73	73

The study estimated the moderating effect of political stability on the relationship between period of losses carried forward and FDI and found that the coefficient of the interaction between political stability and period of losses carried forward (B= 0.00000262) was statistically insignificant implying that political stability did not moderate the relationship between period of losses carried forward and FDI. That variation in political stability did not influence the relationship between period of losses carried forward and FDI inflow. Additionally, political stability did not have a direct effect on the FDI when controlling for period of losses carried forward (see Table 5.33).

Table 5.33: Moderating Effect of Political Stability on the Relationship between Period of losses carried forward and FDI

	Unmoderated	Moderated
Variable	Coefficient	Coefficient
Period of losses carried forward	-.000181 (.0006233)	-.0002437 (.0013004)
Political Stability		-0.00000522 (.0004168)
Interaction between Political Stability and Period of losses carried forward		0.00000262 (.0000579)
Constant	.0021266 (.005236)	.0022722 (.0103302)
F Test	0.08	0.04
R-Squared	0.0013	0.0015
Number of Observations	70	70

The study estimated the moderating effect of corruption on the relationship between tax holiday and FDI and found that the coefficient of the interaction between corruption and tax holiday (B= -.0001652) was statistically significant implying that corruption has negative moderating effect on the relationship between tax holiday and FDI. That is varying levels of corruption influences the relationship between tax holiday and FDI inflow. Such that high level of corruption will lead to decrease in FDI inflow when providing tax holidays in EAC partner states. Additionally, corruption did not have a direct effect on the FDI when controlling for tax holiday (see table 5.34).

Table 5.34: Moderating Effect of Corruption on the Relationship between Tax Holiday and FDI

Variable	Unmoderated Coefficient	Moderated Coefficient
Tax Holiday	-.000227 (.0003642)	-.0000554 (.0003561)
Corruption		.0006929 (.0004168)
Interaction between Corruption and Tax Holiday		-.0001652*** (.0000555)
Constant	.0025586 (.003054)	.0006533 (.0029921)
F Test	0.39	3.33**
R-Squared	0.0044	0.0849
Number of Observations	68	68

The study estimated the moderating effect of corruption on the relationship between investment allowances and FDI and found that the coefficient of the interaction between corruption and investment allowances (B= -.0000176) was statistically insignificant implying that corruption did not moderate the relationship between investment allowances and FDI. Implying that varying levels of corruption do not influence the relationship between investment allowances and FDI. Additionally, corruption did not have a direct effect on the FDI when controlling for investment allowances (see table 5.35).

Table 5.35: Moderating Effect of Corruption on the Relationship between Investments Allowances and FDI

Variable	Unmoderated Coefficient	Moderated Coefficient
Investments Allowances	.0007606*** (.0002097)	.0007929 (.0006868)
Corruption		-.0002206 (.0003625)
Interaction between Corruption and Investments Allowances		-.0000176 (.000119)
Constant	.000793 (.0014863)	.0008319 (.0015113)
F Test	13.16***	30.92***
R-Squared	0.0430	0.0486
Number of Observations	73	73

The study estimated the moderating effect of corruption on the relationship between period of losses carried forward and FDI and found that the coefficient of the interaction between corruption and period of losses carried forward (B= -.0003224) was statistically significant implying that corruption negatively moderates the relationship between period of losses carried forward and FDI. The study reveals that increase in corruption levels will lead to decrease in FDI inflow in the presence of period of losses carried forward. Additionally, corruption had a direct significant and positive influence on FDI when controlling for period of losses carried forward (see table 5.36).

Table 5.36: Moderating Effect of Corruption on the Relationship between Period of Losses Carried Forward and FDI

	Unmoderated	Moderated
Variable	**Coefficient**	**Coefficient**
Period of losses carried forward	-.000181 (.0006233)	-.0000781 (.0006122)
Corruption		.0020023*** (.0006862)
Interaction between Corruption and Period of losses carried forward		-.0003224*** (.0000962)
Constant	.0021266 (.005236)	.0013188 (.0052084)
F Test	0.08	4.22***
R-Squared	0.0013	0.0875
Number of Observations	70	70

The study estimated the moderating effect of trade openness on the relationship between tax holiday and FDI and found that the coefficient of the interaction between trade openness and tax holiday (B= .0187272) was statistically insignificant implying that trade openness did not moderate the relationship between tax holiday and FDI. This means that increase or decrease in levels of trade openness does not influence the relationship between tax holiday and FDI inflow in EAC partner states. Additionally, trade openness did not have a direct effect on the FDI when controlling for tax holiday (see table 5.37).

Table 5.37: Moderating Effect of Trade Openness on the Relationship between Tax Holiday and FDI

	Unmoderated	Moderated
Variable	Coefficient	Coefficient
Tax Holiday	-.000227 (.0003642)	-.0006625 (.0004588)
Trade Openness		-.1243369 (.1412879)
Interaction between Trade Openness and Tax Holiday		.0187272 (.0144585)
Constant	.0025586 (.003054)	.0060409 (.0041664)
F Test	0.39	3.55**
R-Squared	0.0044	0.0710
Number of Observations	68	68

The study estimated the moderating effect of trade openness on the relationship between investment allowances and FDI and found that the coefficient of the interaction between trade openness and investment allowances (B= .0037564) was statistically insignificant implying that trade openness did not moderate the relationship between investment allowances and FDI. This means that increase or decrease in levels of trade openness does not influence the relationship between investment allowances and FDI inflow in EAC partner states. Additionally, trade openness had a direct positive significant effect on the FDI when controlling for investment allowances   (See table 5.38).

Table 5.38: Moderating Effect of Trade Openness on the Relationship between Investments Allowances and FDI

	Unmoderated	Moderated
Variable	**Coefficient**	**Coefficient**
Investments Allowances	.0007606*** (.0002097)	.0007602*** (.0002752)
Trade Openness		.0536795** (.021661)
Interaction between Trade Openness and Investments Allowances		.0037564 (.0097478)
Constant	.000793 (.0014863)	.0000148 (.0013305)
F Test	13.16***	12.77 ***
R-Squared	0.0430	0.0964
Number of Observations	73	72

The study estimated the moderating effect of trade openness on the relationship between period losses carried forward and FDI and found that the coefficient of the interaction between trade openness and period of losses carried forward (B= -.0045448) was statistically insignificant implying that trade openness did not moderate the relationship between period of losses carried forward and FDI. Meaning, variarions in trade openness levels do not influence the relationship between period of losses carried and FDI inflow in EAC partner states. Additionally, directly trade openness insignificantly influences FDI when controlling for period of losses carried forward (see table 5.39).

Table 5.39: Moderating Effect of Trade Openness on the Relationship between Period of losses Carried Forward and FDI

	Unmoderated	**Moderated**
Variable	**Coefficient**	**Coefficient**
Period of losses carried forward	-.000181 (.0006233)	-.0001585 (.0005623)
Trade Openness		.0940116 (.0586527)
Interaction between Trade Openness and Period of losses carried forward		-.0045448 (.0086105)
Constant	.0021266 (.005236)	.0012106 (.0048525)
F Test	0.08	3.77 **
R-Squared	0.0013	0.0633
Number of Observations	70	69

Summary of Hypothesis 3 Results

The study found that corruption negatively and significantly influences the relationship between tax holiday and FDI. Corruption also negatively and significantly influences the relationship between period of losses carried forward and FDI inflow. This implies that increase in levels of corruption in EAC partner states will lead to decreased FDI inflows when providing tax holidays and period of losses carried forward. However, corruption does not influence the relationship between investment allowances and FDI. The study revealed that Political stability, electricity supply and trade openness do not influence the relationship between tax incentives and FDI among East African countries.

Table 5.40: Moderating Effects for all variables and interactions

Variables	Coefficients
Tax holiday	-0.0010
	(0.0018)
Investments allowance	-0.0001
	(0.0056)
Losses carried forward	0.0005
	(0.0026)
Access to electricity	0.0001
	(0.0012)
Political stability	-0.0002
	(0.0007)
Corruption	0.0021*
	(0.0011)
Trade openness	-0.1793
	(0.2677)
Interaction between tax holiday and access to electricity	0.0000
	(0.0001)
Interaction between Investment allowances and infrascturcture	-0.0000
	(0.0001)
Interaction between losses carried forward and infrascturcture	-0.0000
	(0.0001)
Interaction between tax holiday and political stability	0.0000
	(0.0001)
Interaction between Investment allowances and political stability	0.0001
	(0.0002)
Interaction between losses carried forward and political stability	0.0000
	(0.0001)
Interaction between tax holiday and corruption	-0.0001
	(0.0001)
Interaction between investment allowances and corruption	-0.0001
	(0.0002)
Interaction between losses carried forward and corruption	-0.0003
	(0.0002)
Interaction between tax holiday and Trade Openness	0.0330
	(0.0257)
Interaction between Investment Allowances and Trade Openness	-0.0054
	(0.0315)
Interaction between Losses Carried Forward and Trade Openness	-0.0137
	(0.0123)
Constant	0.0102
	(0.0197)
Observations	65
R-squared	0.2347

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5.3.4 Joint Effect of Tax Incentives, International Competitiveness and Investment Climate on Foreign Direct Investment

The study's fourth objective was to establish the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states. This objective was achieved by running a pooled OLS regression model. The hypothesis of the study under this section was

> H_4: *The joint effect of tax incentives, international competitiveness and investment*
>
> *climate on foreign direct investment in East Africa Community partner states is not*
>
> *significant.*

The hypothesis was tested using the following equation:

$$FDI_{it} = \beta_O + \beta_1 TH_{it} + \beta_2 IA_{it} + \beta_3 LF_{it} + \beta_4 EI_{it} + \beta_5 CP_{it} + \beta_6 EG_{it} + \beta_7 ES_{it} + \beta_8 PS_{it}$$
$$+ \beta_9 CN_{it} + \beta_{10} TO_{it} + \beta_{11} MS_{it} + \varepsilon$$

The study found that the R squared was 0.1348 suggesting that 13.48% of variations in FDI were explained by variations in tax incentives, international competitiveness and investment climate. The F test statistic was 1.81 and was significant at 10% suggesting that jointly tax incentives, international competitiveness and investment climate influenced FDI inflow to East Africa Community partner states. Further, the study found that investment allowances and trade openness positively and significantly influenced FDI inflow in EAC countries. Tax holiday, period of losses carried forward, export prices, consumer prices, export growth, electricity supply, political stability and corruption did not significantly and directly affect FDI (see table 5.40). The hypothesis was tested using 65 as opposed to 80 data points because data was not available for some variables.

Table 5.41: Joint Effect of Tax Incentives, International Competitiveness and Investment Climate on Foreign Direct Investment

VARIABLES	(1) Coefficient
Tax Holiday	-0.0001
	(0.0006)
Investment Allowances	0.0007**
	(0.0003)
Period of Period of losses Carried Forward	-0.0004
	(0.0009)
Export Index	-0.0000
	(0.0000)
Consumer Price	0.0001
	(0.0006)
Export Growth	-0.0001
	(0.0001)
Electricity Supply	-0.0001
	(0.0002)
Political Stability	0.0000
	(0.0002)
Corruption	-0.0002
	(0.0004)
Trade Openness	0.0721*
	(0.0404)
Constant	0.0076
	(0.0085)
R-squared	0.1348
F test	1.81*
Observations	65

Source: Researcher (2019)

Table 5.42: Summary of Hypothesis 4 Results

Hypothesis	Study findings	Hypothesis test results
The joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states is not statistically significant	The F test statistic was 1.81 and was stastically significant at 10% suggesting that jointly tax incentives, international competitiveness and investment climate influenced FDI inflows in East Africa Community partner states.	Reject Null

Source: Researcher (2019)

5.4 Discussion of the Findings

The findings of the study are discussed based on the study objectives. Section 5.4.1 discusses the relationship between tax incentives and FDI while section 5.4.2 discusses the intervening effect of international competitiveness on the relationship between tax incentives and FDI. Section 5.4.3 and 5.4.4 discusses the findings on the moderating effect of investment climate on the relationship between tax incentives and FDI and the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment respectively.

5.4.1 Relationship between Tax Incentives and FDI

The results on the relationship between tax incentives and FDI inflows established that tax holidays had a negative and statistically insignificant effect on FDI inflows. Similarly, the findings revealed that the period of losses carried forward had a negative and statistically insignificant relationship with FDI inflows. Theoretically, these results are supported by the new economic geography theory by Krugman (1991) which challenged the key assertion of

neo-classical investment theory regarding the importance of taxes in influencing investments and states that FDI flow can be determined by geographical location of a country and not necessarily tax incentives advantages, which may be inconsequential. However, the findings do not support the neoclassical investment theory by Jorgenson (1963) which states that the relationship that exists between tax incentives and foreign investment is positive in nature. The findings also do not support the eclectic paradigm which states that investors will prefer countries with locational advantages as Tavares-Lehmann (2012) argues that locational advantages include provision of tax incentives and tax incentives reduces cost of doing business making a country internationally competitive therefore attracting more FDI.

The above results are consistent with previous empirical studies. A study by Cleeve (2008) using tax concessions as an indicator of tax incentives found that tax concessions were statistically insignificant in attracting FDI in Sub Sahara Africa. Fahmi (2012) found that tax holiday is not a significant factor in attracting FDI in Indonesia. A study by Oleksiv (2000) established that provision of tax holidays in Ukraine did not result to attraction of FDI in the country and concluded that though tax matters in attraction of FDI tax holidays do not. Porcano and Price, (1996) found that reduction on corporate taxes do not have a significant effect in attraction of FDI. Further, the above findings are consistent with those of Munongo (2015) who found that period of losses carried forward was an insignificant factor in attracting FDI in the SADC region. In addition, the above findings support the IMF and World Bank, which have been discouraging developing counties from giving tax holidays to attract FDI. However, the results are inconsistent with some previous studies, which found that provision tax holidays and period of period of losses carried forward are key in attracting FDI. Klemm and Parys (2012) found that longer tax holidays and lower

corporate income tax rates are effective in attracting foreign direct investment. Drebler and Overesch (2013) found that investors take into consideration the loss carry forward period offered by a host country with a short carry forward time limit lowering investments. Other studies which have shown tax holidays to be important in attracting FDI includes Thuita (2017); Gebremedhin and Saporna (2016) and Sari, Dewi and Sun (2015).

The current study established that the relationship between investment allowances and FDI inflow is positive and statistically significant. These findings support the neoclassical investment theory by Jorgenson (1963) which states that the relationship that exists between tax incentives and foreign investment is positive in nature. It also support the assertion of eclectic theory conceptualized by Dunning (1977) which argues that investors will prefer countries with locational advantages as Tavares-Lehmann (2012) argues that locational advantages include provision of tax incentives. Empirically, the results support Olaleye (2016) who established that provision of investment allowances attracts FDI in Nigeria manufacturing sector. But the study contradict the findings by Van Parys and James (2010) who found no evidence that provision investment allowances attract FDI in Sub Sahara Africa. The findings under objective one demonstrates that various forms of tax incentives have different influences on location of FDI. While tax holidays and period of losses carried forward have no statistically significant influence on FDI location, investment allowances on the other hand, were found to be statistically significant in influencing location of FDI in EAC partner states. This implies that caution need to be exercised when providing tax incentives so that only those tax incentives, which will lead to attraction of investments are granted.

5.4.2 Intervening Effect of International Competitiveness on the Relationship between Tax Incentives and FDI

The results showed that export prices, consumer prices and export growth did not significantly mediate the relationship between tax holiday and FDI among EAC countries. The mediating findings, further established that tax holidays, export prices, consumer prices and export growth had statistically insignificant influence on FDI inflow in EAC partner states. Tax holiday had a negative statistically significance influence on export prices while it had a positive statistically significance influence on consumer prices. The intervening findings showed that tax holiday had negative statistically insignificant influence on export growth. The study findings were consistent with Tsaurai (2018) who using fixed effects found that inflation (consumer price index) had no significant influence on FDI. However, the study contradicts Bahri (2018) who found the presence of both long-term relationship and short term dynamic among the FDI, financial development, consumer price index and real GDP per capital. A study by Anitha (2012) found that increase in inflation led to increase in FDI in India. Additionally, the study found that export prices, consumer prices and export growth did not significantly mediate the relationship between investment allowances and FDI among EAC countries.

The mediation regression analysis results showed that export prices, consumer prices and export growth had no statistically significance effect on FDI while investment allowances had a positive and significant effect on FDI. Additionally, investment allowances had a positive insignificant influence on consumer prices and export growth while it had a negative insignificant effect on export prices. The establishment of investment allowances having statistically significant effect on FDI agrees with findings of Thuita (2017) and Olaleye

(2016). However, this was inconsistent with previous studies by Njoroge (2016) and Tuomi (2011).

Further, the study found that export prices, consumer prices and export growth did not significantly mediate the relationship between loss carried forward and FDI among EAC countries. The mediation regression analysis results showed that period of losses carried forward, export prices, consumer prices and export growth had a statistically insignificant effect on FDI inflow. However, period of losses carried forward had a negative statistically significant effect on export prices. While period of losses carried forward had negative statistically insignificant effect on consumer prices and export growth. The results are inconsistent with those by Fanta and Teshale (2014) who revealed that tax incentives had a direct relationship with both export value and export volume. A study by Bhatt (2013) found a bi-directional relationship between exports and FDI and the direction is from FDI to exports, which meant that FDI Granger causes exports. Sharma (2000) found that foreign investment did not have a statistically significant impact on export performance although the coefficient of FDI has a positive sign.

The study findings concludes that international competitiveness (export prices, consumer prices and export growth) did not significantly mediate the relationship between tax incentives (tax holiday, investment allowances and period of losses carried forward) and FDI among EAC countries.

5.4.3 Moderating Effect of Investment Climate on the Relationship between Tax Incentives and FDI

Objective three of the study was to determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states. The hypothesis under this objective was the moderating effect of investment climate in the relationship between tax incentives and FDI in EAC partner states is not significant. Four indicators of investment climate were employed namely: electricity supply, political stability, corruption and trade openness while indicators of tax incentives were tax holiday, period of losses carried forward and investment allowances.

When the relationship between tax incentives and FDI was moderated using corruption, the results were as follows: The moderating effect of corruption on the relationship between tax holiday and FDI was negative and statistically significant implying that increase in corruption had a negative influence on the relationship between tax holiday and FDI. This means that when levels of corruption goes up in presence of tax holidays the amount of FDI inflow decreases. When the levels of corruption are reduced in presence of tax holidays the study revealed that FDI inflow will be enhanced in EAC partner states. Therefore, corruption and tax holidays if well managed can increase FDI inflowas in EAC partner states. Additionally, corruption did not have a statistically significant direct effect on the FDI when controlling for tax holiday. The moderating effect of corruption on the relationship between investment allowances and FDI was statistically insignificant implying that corruption did not influence the relationship between investment allowances and FDI. Additionally, corruption did not have a statistically significant direct effect on the FDI when controlling for investment allowances. The results confirm Akcay (2001) findings that there is no

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relationship between corruption and FDI but contradicts results by Kim (2010) who revealed a positive relationship between inward FDI performance and corruption levels.

The moderating effect of corruption on the relationship between period of losses carried forward and FDI was negative and statistically significant implying that increase in corruption negatively influences the relationship between period of losses carried forward and FDI. Therefore, increase in corruption in EAC partner states will lead to decrease in FDI inflow when factoring period of losses carried forward. Additionally, when controlling for period of losses carried forward corruption had a statistically significant positive influence on FDI. Implying that increase in level of corruption would result to increased flow of FDI. This confirms results by Kim (2010) but contradicts other studies such as Alemu (2012) who found that corruption influences the FDI inflow in a host country and that a 1% increase in the level of corruption would lead to 9.1 % decrease in level of FDI inflow. According to Klitgaard (1988), corruption erodes confidence, break downs rule of law, affect people's faith and self-esteem and ultimately discourages FDI decreasing economic development. A study by Siddharthan (2004) found a significant negative impact of corruption on attracting and retention of foreign direct investment.

When the relationship between tax incentives and FDI was moderated using electricity supply it was found that electricity supply did not influence the relationship between tax incentives (tax holiday, investment allowance and period of losses carried forward) and foreign direct investments. The study also established that, electricity supply did not have a direct effect on the FDI when controlling for individual effects of tax holiday, investment allowances and period of losses carried forward.

When the relationship between tax incentives and FDI was moderated using political stability it was established that political stability did not influence the relationship between tax incentives (tax holiday, investment allowance and period of losses carried forward) and foreign direct investments. Further, it was found that political stability had no direct influence on FDI when controlling for individual effects of tax holiday, investment allowances and period of losses carried forward. The results are consisted with Rani and Batool (2016) who found that political instability is insignificant in influencing economic development. However, the results were inconsistent with previous studies on relationship between political stability and FDI. A study by Osabutey and Okoro (2015) found that political risk had a significant link with FDI inflows. Khan and Akbar (2013) found that political risk had a negative relationship with FDI while Busse and Hefeker (2007) found that the indicators of political risks were significant in determining FDI inflows. Krifa-Schneider and Matei (2010) found that low level of political risk is linked to increase in FDI inflows and that favorable business climate had a significant influence on FDI inflows.

When the relationship between investment allowance and FDI was moderated using trade openness it was established that the interaction between trade openness and investment allowances had statistically insignificant effect on FDI, implying that trade openness did not influence the relationship between investment allowances and FDI. However, controlling for investment allowances trade openness had a direct statistically significant positive influence on FDI. Suggesting that more open economies in EAC attract more FDI when factoring investment allowances. This confirms other studies such one by Babatunde (2011) who found that trade openness positively influences FDI in in Sub Saharan Africa countries. However, it contradict studies by Tsaurai (2015) and Anitha (2012).

Trade openness was also found not to influence the relationship between tax holidays and FDI and the relationship between period of losses carried forward and FDI. Further, when controlling for individual effects of tax holidays and period of losses carried forward trade openness did not have a statistically significant direct effect on FDI. Implying that trade openness did not influence FDI inflow in EAC partner states when controlling for tax holidays and period of losses carried forward. The study agrees with the findings of Tsaurai (2015) who found that there is no relationship between trade openness and foreign direct investment in Zimbabwe. Anitha (2012) found that trade openness had insignificant effect in attracting FDI in India. However, other studies indicate trade openness has influence on FDI inflow. Jordaan (2006) argues that the influence of trade openness on FDI hinges on the type of investment thus a less open economy will enhance the relationship between tax incentive and FDI for a market seeking FDI leading to more foreign investment for the same tax incentive given in a more open economy. The study by Pradhan, Arvin, Hall and Nail (2017) observed that trade openness and infrastructural development influences FDI leading to sustainable development. Further, Castro and Nunes (2013) revealed that openness trade was a significant factor in explaining FDI flows into Portugal in addition to wages and taxes were also statically significant. Sekkat and Veganzones-Varoudakis (2007) revealed that openness, infrastructure availability, sound economic and political stability greatly affected FDI inflows in the manufacturing sector compared to other economic sectors

5.4.4 Joint Effect of Tax Incentives, International Competitiveness and Investment Climate on Foreign Direct Investment

The study established that 13.48% of variations of FDI were explained by variations in tax incentives, international competitiveness and investment climate. The study   F test was 1.81

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which was significant at 10% implying that jointly, tax incentives, international competitiveness and investment climate influenced FDI. Further, the study found that investment allowances positively and significantly influenced FDI in EAC countries holding other things constant. The results were consisted with previous studies such as Olaleye (2016); Munongo (2015); Effiok, Tapang and Eto (2013) and Lee(2012).However this is inconsisted with studies such as: Njoroge (2016); Peters and Kiabel (2015); Tuomi (2011) and Chai and Goyal (2008) . Additionally, trade openness positively and significantly influenced FDI in EAC countries holding other things constant. The study results confirms those of Babatunde (2011) , but contradicts those obtained by Tsaurai (2015) and Anitha (2012). Tax holidays did not have statistically significance influence on FDI. The results were in agreement with some previous empirical studies such as a study by Fahmi (2012), Oleksiv (2000) and Porcano and Price (1996). Period of losses carried forward, were also found not to have any statistically significance influence on FDI this confirms results by Munongo (2015). However it contradicts the results obtained by Olaleye (2016) and Drebler and Overesch (2013). Jointly export prices, consumer prices, export growth, electricity supply, political stability and corruption did not significantly and directly affect FDI.

CHAPTER SIX

SUMMARY OF FINDINGS CONCLUSION AND

RECOMMENDATIONS

6.1 Introduction

This chapter presents a summary of the study, the research conclusions and recommendations for policy and practice. The chapter also discusses the contribution of the study to knowledge, the limitations of the study and suggestion for additional research.

6.2 Summary of Findings

The main objective of this study was to determine the relationship among tax incentives, international competitiveness, investment climates and FDI flows in EAC partner states. The subsidiary objectives to the main objective was to determine the relationship of tax incentives on foreign direct investment in East Africa Community partner states and also establish the intervening effect of international competitiveness on the relationship between tax incentives and FDI in East Africa Community partner states. The other objectives were to determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states and to establish the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states.

To achieve the objectives of this study, panel data for the five partner states in the East Africa Community: Tanzania, Rwanda, Kenya, Burundi, and Uganda was used with the unit of analysis being the individual partner states. The study employed secondary data, which covered a period of 16 years from 2002 to 2017. The main source of data was UNCTD, EAC

secretariat; World/African Development indicators of the World Bank, World Resource Institute, Ernest and Young worldwide tax data, tax laws and finance Acts of the individual countries and Partner states tax authorities and OECD. The data was analyzed using inferential and descriptive statistics. Descriptive statistics were used to summarize the data into meaningful distribution of scores using the mean, standard deviation, maximum and minimum values among measures of central tendency. Inferential statistics entailed the panel linear regression and correlation analysis. Panel regression analysis was conducted to establish the relationship between tax incentives and FDI in all five East Africa Community partner states for years 2002 to 2017.

The descriptive results revealed that the mean values for FDI were 0.0109 for Kenya, 0.0339 in Uganda, 0.0342 in Tanzania, 0.0213 in Rwanda and 0.0079 in Burundi and the overall mean was 0.0220. On tax holiday, Kenya, Uganda and Burundi had not changed their period of tax holidays, which had remained 10 years during the study period while Rwanda introduced tax holidays in 2015 with Tanzania changing their tax holiday from 2 years in 2004 to 10 years. The average value for investment allowance was 0.4018 for Kenya, 0.2727 for Uganda, 0.3101 for Tanzania, 0.2034 for Rwanda, 0.3763 for Burundi and the average rate of investment allowances for the five countries was 0.3128. On period of period of losses carried forward, the period in Tanzania and Uganda was indefinite while Kenya changed from indefinite to 4 years then 9 years with Rwanda and Burundi having a period of 5 year.

In addition, the descriptive results also revealed that average value for export prices were 153.21 for Kenya, 160.56 for Uganda, 209.35 for Tanzania, 227.56 for Rwanda, 188.46 for Burundi and the average export price for the five countries was 187.83. The mean values for consumer prices were 100.21 for Kenya, 104.61 for Uganda, 106.61 for Tanzania, 95.73

for Rwanda, 103.18 for Burundi and average value of consumer prices in the five countries was 102.07. The mean values for export growth were 4.31 for Kenya, 10.56 for Uganda, 8.04 for Tanzania, 13.72 for Rwanda, 11.01 for Burundi and the average export growth value for the five countries was 9.51 respectively.

The descriptive results further established that average values for market size as measured using GDP were 24.40 for Kenya, 23.66 for Uganda, 24.15 for Tanzania, 22.39 for Rwanda, 21.39 for Burundi and the average value for the five countries being 23.20. The average values for electricity supply were 27.40 for Kenya, 13.87 for Uganda, 15.12 for Tanzania, 12.80 for Rwanda, 5.39 for Burundi and the average value for electricity supply for the five countries was 14.95. The average values for political stability index were 12.34 for Kenya, 16.71 for Uganda, 35.74 for Tanzania, 31.55 for Rwanda, 7.05 for Burundi and the mean value of 20.48. The average values for corruption index were 16.74 for Kenya, 18.52 for Uganda, 33.93 for Tanzania, 59.70 for Rwanda, 11.83 for Burundi and the mean index of 28.14 for the five countries. The mean values for trade openness were 0.49 for Kenya, 0.39 for Uganda, 0.42 for Tanzania, 0.38 for Rwanda, 0.33 for Burundi and the average value was 0.40 being the average value for the five countries.

The results of correlation analysis revealed that tax holiday, period of losses carried, export prices , consumer prices market size, electricity supply, political stability, corruption and trade openness have a positive correlation with FDI while investment allowance, export growth had a negative correlation with FDI inflows. Export prices and export growth had a weak negative correlation with tax holidays while consumer prices had a weak positive correlation with tax holidays. Investment allowances and period of period of losses carried forward had a weak negative correlation with international competitiveness.

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The findings indicate that tax holidays has got a weak positive correlation with market size, electricity supply and trade openness but a weak negative correlation with political stability. However, there is a strong negative correlation between tax holiday and the corruption index. On the other hand, investment allowances had weak positive correlation with market size, electricity supply and trade openness. Corruption and political stability had a moderate negative correlation with investment allowances. The findings also found that period of losses carried forward had a strong and positive correlation with market size. According to the current study the electricity supply and political stability have a weak and positive correlation with the period of period of losses carried forward. Trade openness and corruption had a weak negative correlation with the period of period of losses carried forward.

The findings indicate that export prices had a weak negative correlation with market size while electricity supply had a weak positive correlation with export prices. Political stability and corruption had moderate positive association with export prices, while trade openness had strong positive correlation with export prices. The results further shows that market size had a weak positive correlation with consumer prices. Electricity supply had a moderate positive correlation with consumer prices while trade openness had a strong positive correlation with consumer prices. On the other hand political stability had a weak positive association with consumer prices. There was weak, negative correlation between consumer prices and corruption. Finally, the results indicates that there is weak, negative correlation between market size, electricity supply and trade openness with export growth.

A weak and positive correlation between political stability and corruption with export growth was established.

The results on the first objective revealed tax holidays and the period of losses carried forward had a negative and statistically insignificant effect on FDI inflows. However, study established that the relationship between investment allowances and FDI inflow is positive and statistically significant.

To achieve the second objective mediation regression analysis specifically causal mediation analysis using parametric regression models was used test the intervening effect of international competitiveness on the relationship between tax incentives and FDI in EAC. The study established that international competitiveness (export prices, consumer prices and export growth) does not mediate the relationship between tax incentives and FDI in EAC partner states.

The third aim of this study was to determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states. The moderating effect was determined using the stepwise regression method, which involved two steps as proposed by Baron and Kenny (1986). The study found that corruption negatively and significantly moderates the relationship between tax holiday and FDI. Corruption also negatively and significantly influences the relationship between period of losses carried forward and FDI. However, the moderating effect of corruption on the relationship between investment allowances and FDI inflow was statistically insignificant implying that corruption did not influence the relationship between investment allowances and FDI inflow. Political stability, electricity supply and trade openness do not influence the relationship between tax incentives and FDI among East African countries.

The study's fourth objective was to establish the joint effect of tax incentives, international competitiveness and investment climate on foreign direct investment in East Africa Community partner states. This objective was achieved by running a pooled OLS regression model. The study found that the R squared was 0.1348 suggesting that about 13.48% of variations in FDI were explained by variations in tax incentives, international competitiveness and investment climate. The F test statistic was 1.81 and was significant at 10% suggesting that jointly tax incentives, international competitiveness and investment climate influenced FDI.

6.3 Conclusions

The study set out to determine the relationship among tax incentives, international competitiveness, investment climates and FDI flows in EAC partner states.

The first specific objective of the study was to determine the relationship between tax incentives and foreign direct investments in East Africa Community partner states. The study revealed that FDI inflow had an insignificant relationship with tax holiday and period of losses carried forward. The study therefore concluded that tax holidays and period of losses carried forward do not have statistically significant influence on FDI inflows among the East African Community partner states. This leads to conclusion that countries in EAC need not offer tax holidays and periods to carry loss forward to attract FDI. The findings of the study also found a significant and positive relationship between investment allowances and FDI inflows. The study therefore concludes that investment allowances has a significant influence on FDI inflows among the East African Community partner states. This means that investment allowances can help to attract FDI in EAC the partner states. The findings under objective one concludes that various forms of tax incentives have different influences on

location of FDI. While tax holidays and period of period of losses carried forward showed no statistically significant influence on FDI location, investment allowances on the other hand, revealed a statistically significant influence in location decisions of FDI in EAC partner states. This implies that caution need to be exercised when providing tax incentives so that only those tax incentives, which will lead to attraction of investments are granted.

The second specific objective of the study was to establish the intervening effect of international competitiveness on the relationship between tax incentives and FDI in East Africa Community partner states. The study established that international competitiveness (export prices, consumer prices and export growth) does not mediate the relationship between tax incentives and FDI in EAC partner states. The study concluded that the increase or decrease of export prices, consumer prices and export growth had no influence in the relationship between tax incentives and FDI in EAC partner states.

The third specific objectives was to determine the moderating effect of investment climate on the relationship between tax incentives and FDI in East Africa Community partner states. The study found that corruption negatively and significantly influence the relationship between tax incentives and FDI. However the other indicators of investment climate: Political stability, electricity supply and trade openness did not influence the relationship between tax incentives and FDI among East African countries. The conclusion of the study was that increase in corruption levels in EAC partner state will result in reduction of FDI.

Finally, when the joint effect test was carried out, the study found that investment allowances and trade openness positively and significantly influenced FDI in EAC countries. Tax holiday, period of losses carried forward, export prices, consumer prices, export growth,

electricity supply, political stability and corruption did not significantly and directly affect FDI. Therefore, the study concluded that provision of investment allowance, as a form of tax incentive will lead to increased FDI. Further, it was concluded that countries with more open economy within EAC are able to attract more FDI compared to countries with closed economy.

6.4 Contribution of the Study to Knowledge

The aim of this study was to establish the relationship between tax incentives, international competitiveness, investment climates and FDI inflows in EAC partner states. The results therefore contribute to the existing body of knowledge in the area of tax incentives, international competitiveness, investment climate and foreign direct investments among the East Africa Community partner states. The study has contributed to the knowledge by establishing that among the three indicators of tax incentives (tax holiday, investment allowances and period of losses carried forward) only investment allowances was found to influence location of FDI in EAC partner states. The study also established that presence of corruption in a country discourages FDI inflow in EAC partner states. Therefore, EAC countries should make sure corruption is eradicated in order to attract FDI. Another major contribution of the current study is the determination that trade openness attracts FDI. The linking of tax incentives and international competitiveness as the intervening variable and investment climate as the moderating variable to determine their effect on FDI added a new empirical dimension in public finance discipline.

The context of this study covered the East Africa Community partner states to determine the effect of tax incentives, international competitiveness and investment climate on FDI inflows. The study therefore contributes to available empirical studies, which have been

carried out within the East Africa region. In addition, most studies carried earlier excluded Rwanda and Burundi, for instance a panel study by Klemms and Parys (2012) covered only Kenya, Tanzania and Uganda while Munongo (2015) covered only Tanzania as a member of SADC excluding other East Africa Countries. Hence, the inclusion of Rwanda and Burundi provides extra information and knowledge concerning FDI and tax incentives in the two countries. The study also contributed to knowledge by looking at individual tax incentives, which are mostly used in EAC region, and giving a robust analysis on the relationship of each individual tax incentives on FDI into EAC partner states.

6.5 Recommendations for Policy and Practice

The findings concluded that tax holidays and period of losses carried foward do not have a significant influence on foreign direct investment among East Africa Community partner states. The study based on this conclusion, recommends that East Africa Community partner states should review dependence on tax holidays and period of losses carried foward to attract FDI since they do not influence the inflow of foreign direct investments and instead focus on other strategies such as improvement of investment climate. The study established that provision of investment allowances as a tax incentive measures attracts FDI. The study therefore, recommends increased provision of investment allowances by East Africa Community partner states to attract more FDI.

Further, the study based on the observed findings concluded that corruption as an indicator of investment climate influences the relationship between tax incentives and FDI in East Africa Community partner states. Hence, the study recommends that the leadership of the

East Africa Community partner states should work towards eradicating corruption   to encourage foreign direct investments.

The study relied on tax incentive data by Ernest and Young and other international sources such as world bank because the member countries of the East African Community do not publish their annual data on tax incentives. The study therefore recommends that the East Africa Community Partner states should compute and publish the official tax expenditure reports annually. Across, the world tax expenditure reporting has a rich history as it started in 1960s with Germany and United State (US) leading the way in 1967 and 1968 respectively. Currently, 33 out of 43 OECD countries publish their official tax expenditure reports (Neubig & Redonda, 2017). In addition, Philippines and Papua New Guinea in the East Asia and Pacific region publishes their official tax expenditure reports. A few countries in Africa including South Africa, Morocco and Mauritius estimates and publish the reports in tax expenditure (AfDB, IMF & World Bank (2017). Presently EAC partner states do not publish their official tax expenditure.

The publication of tax expenditures statement (TES) by EAC partner state will enable a cost benefit analysis studies to be carried out and also help in scrutiny of tax expenditure by academia, media, parliament and the general public. It will also help inform debate on transparency, efficiency and justice of EAC partner states tax systems. Lack of publication of official tax expenditure reports result to general lack of transparency harboring effective cost benefit analysis (Redonda et al., 2018). The publication of TES will be in line with constitutions of some of the EAC partners states like Kenya where in Chapter 210 on imposition of tax article 2(a) provides that "a public record of each waiver shall be

maintained together with the reason for the waiver" (Kenya Constitution ,2010). Mauritius started publishing its tax expenditure in 2005 and it triggered major reform which show Mauritius abolish most of tax incentives including removal of virtually all tax holidays, elimination of investment allowances and restricting loss carried forward to only five years. Since, 2007 the annual budget of Mauritius includes a tax expenditure report showing among other details the estimated cost of tax expenditure as percentage of GDP. Therefore, the study recommends an annual tax expenditure report showing the cost of tax incentives and the beneficiaries of the tax incentives should be availed and tabled in respective parliaments of EAC partner states during presentation of the budget policy statements annually.

The reviewed empirical literature on tax incentives among the East Africa Community partner states among them Penev and Marusic (2014), TJN-A (2016), UNCTAD (2015) and the World Investment Report (2015) indicates that each of the countries have different policies regarding tax incentives. Therefore the study recommends there is a need in coming up with a common fiscal policies among EAC partner states.

6.6 Limitations of the Study

This study collected secondary data for a period of 16 year from 2002 to 2017 hence the findings cover the considered study period, which may limit generalization to other study period not covered by the study. The study also used secondary data, which is historic in nature and may not represent the current situation. In addition, the use of secondary data fails to incorporate the views of management of multinational companies on whether tax incentives influenced their decision to invest in particular East Africa Community state.

The East Africa Community is made up of six countries among them Kenya, Uganda, Tanzania, Rwanda, Burundi and South Sudan, which was recently admitted into the community. However, South Sudan was excluded from the study due to unavailability of data since the country got independence from Sudan a few years ago. In addition, South Sudan had been engulfed in political instability since its independence from the Sudan.

The study was based on four variables comprising tax incentives, which was proxied using tax holidays, investment allowances and period of period of losses carried forward. The second variable was international competitiveness, which was proxied by export prices, consumer prices and export growth while the third variable was investment climate proxied by market size (GDP), electricity supply, political stability, corruption and trade openness, and FDI the fourth variable was measured using the ratio of FDI inflows to GDP. However, there are several other indicators of the study variables, which were not considered and the findings are based only on the indicators used.

6.7 Suggestions for Further Research

Several areas have emerged as possible gaps which can be filled by carrying out further empirical studies. First, this study looked at FDI inflow in totality without segregating them into various sectors of economy. A study can be carried out to establish the effect of tax incentives in attracting sectorial-based FDI. A comparative study of different economic blocs such as SADAC, COMESA and EAC can be done to investigate the effect of tax incentives.

The findings also revealed that tax incentives, international competitiveness and investment climate explain 13.48% of the variation in the dependent variable, which indicates that other variables not considered by the study account for 82.52% of the variation. The study therefore suggests a study on the other variables both macroeconomic and microeconomic, which influence foreign direct investments among the East Africa Community partner states.

This study observed that FDI takes a number of forms: greenfield investments (real investments in factories or production plants), join ventures (creating global strategic alliances), brown field investments (acquiring existing manufacturing facilities to start a new production line) and cross border mergers and acquisition. A research on the most prevalent type of FDI in EAC partner states can be carried out.

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APPENDICES

APPENDIX I: DATA COLLECTION FORM

Year	Country	FDI	Import	Export	CPI	Export index	Export growth	Electricity S.	Political S	Corruption	Real GDP	Investment. All.	Tax h.	losses	Market Size.	Trade OP
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APPENDIX II: NACOSTI LETTER OF RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref No. **NACOSTI/P/18/74655/23734**

Date: **20ᵗʰ July, 2018**

Dominic Murage Njeru
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Tax incentives, international competitiveness, investment climate and foreign direct investments in East Africa"* I am pleased to inform you that you have been authorized to undertake research in **all Counties** for the period ending **19ᵗʰ July, 2019.**

You are advised to report to **the Commissioner General, Kenya Revenue Authority, the Director General, Kenya National Bureau of Statistics, the Director, Kenya Investment Authority, the County Commissioners and the County Directors of Education, all Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

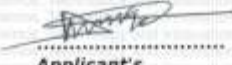Copy to:

The Commissioner General
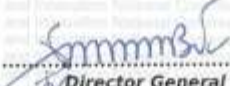Kenya Revenue Authority.

APPENDIX III: RESEACH CLEARANCE PERMIT

THIS IS TO CERTIFY THAT:
MR. DOMINIC MURAGE NJERU
of UNIVERSITY OF NAIROBI, 102542-101
Nairobi,has been permitted to conduct
research in *All Counties*

on the topic: *TAX*
INCENTIVES,INTERNATIONAL
COMPETITIVENESS,INVESTMENT
CLIMATE AND FOREIGN DIRECT
INVESTMENTS IN EAST AFRICA

for the period ending:
19th July,2019

Permit No : NACOSTI/P/18/74655/23734
Date Of Issue : 20th July,2018
Fee Recieved :Ksh 2000

....
Applicant's
Signature

....
Director General
National Commission for Science,
Technology & Innovation

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
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7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
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REPUBLIC OF KENYA

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National Commission for Science,
Technology and Innovation

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PERMIT

Serial No.A 19585

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