

# Implications of Trade Facilitation on Foreign Direct Investments in Kenya

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THE KENYA INSTITUTE FOR PUBLIC POLICY RESEARCH AND ANALYSIS (KIPPRA)

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Trade and Foreign Policy Division

Kenya Institute for Public Policy Research and Analysis

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#### **Abstract**

This study examines the effects of trade facilitation on foreign direct investments in Kenya. Open, predictable and transparent trade and investment regimes have become necessary due to growing fragmentation of production across borders. Kenya has so far been a poor performer of FDI despite being the strongest and most diversified economy in East Africa. Yet, the government has undertaken major reforms aimed at improving the business environment and attracting new investments since independence. So far, there are limited studies on how underlying transaction costs in domestic and international transactions might affect FDI decisions in Kenya. The study uses a fixed effects Poisson Pseudo-Maximum-Likelihood gravity model in the analysis. Bilateral FDI data for the period 2001-2012 and various trade facilitation indicators were used. The results indicate that improvements of indicators related to domestic transaction costs, specifically enforcement of contracts, have significant effects on FDI flows in Kenya. The country should therefore enhance the efficiency of the judicial system in resolving commercial disputes as a way to increase foreign direct investments.

#### **Abbreviations and Acronyms**

ADB Asian Development Bank

CBK Central Bank of Kenya

CEPII Centre for Prospective Studies and International Information

COMESA Common Market for Eastern and Southern Africa

EAC East African Community

FDI Foreign Direct Investment

HMY Helpman, Melitz and Yeaple model

KEBS Kenya Bureau of Standards

KenInvest Kenya Investment Authority

KEPHIS Kenya Plant Health Inspectorate Services

KNBS Kenya National Bureau of Statistics

KPA Kenya Ports Authority

NCTTCA Northern Corridor Transit and Transport Coordination Authority

OECD Organization for Economic Cooperation and Development

OLS Ordinary Least Square

PCT Proximity-Concentration Trade-off

PPML Poisson Pseudo-Maximum-Likelihood

SCT Single Customs Territory

TEU Twenty foot equivalent unit

TFA Trade Facilitation Agreement

UNCTAD United Nations Conference on Trade and Development

UNECA United Nations Economic Commission for Africa

UNESCAP United Nations Economic Commission for Asia and Pacific

WTO World Trade Organization

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#### 1. Introduction

#### 1.1 Background

Trade facilitation has increasingly become an important aspect of economic development and more people, goods and services are crossing borders than ever before. Subsequently, trade patterns have evolved and the products and services that go with them are being sourced from all over the world. The need for countries to have an open, predictable and transparent trade and investment regime is necessitated by the growing fragmentation of production across borders (Persson, 2012; Nayak et al., 2014). Therefore, countries that implement trade facilitation reforms and enhance trade efficiency and connectivity arguably attract more foreign direct investments.

Mirodout (2010) reports that 60 per cent of global trade consists of trade in intermediate goods. According to UNCTAD (2004) an estimated one third of total international trade occurs between intra-firms through global value chains. In this arrangement, production processes are sliced up and allocated across countries along value chains to achieve efficiency gains through integrated production networks. Therefore, the growing relevance of trade facilitation emanates not only from the progressive reduction of trade barriers, but also the reorganization of production processes by transnational corporations into distinct and more specialized phases and the embodiment of value added produced across different countries (UNECA, 2013; OECD, 2015).

Trade facilitation refers to the simplification, harmonization, standardization and modernization of trade procedures (Grainger, 2007; Evdokia, et al., 2013; WTO, 2015). Its main objective is to simplify processes and minimize transaction costs in international trade, while maintaining effective levels of government control. The definition is further extended to mean the improvement of transport infrastructure (transport facilitation), removal of government corruption, reduction of customs tariffs, removal of non-tariff trade barriers, marketing and promotion of exports.

Likewise, several theories have been put forward to explain the flow of FDIs in the past, ranging from the theories based on perfect competition to those based on imperfect competition as well as those related to international trade (Nayak, et al., 2014). Whereas no single theory so far fits the different types of foreign investments, the definitions and composition of FDI are generally agreed. According to World Bank (2013), FDI refers to acquisition of ownership of assets by residents of one country for the purpose of controlling the production, distribution and other activities of a firm in another country. The ownership of at least 10% of ordinary shares or voting rights qualify as direct investment, whereas that less than 10% is recorded as portfolio investment.

FDIs enter into host countries through either greenfield investment or through mergers and acquisitions. Greenfield investments occur when a parent company or government begins a new venture by constructing new facilities in a country outside of where the company is headquartered. This is in converse to brownfield investments where by an entity purchases an existing facility to begin a new plant. According to Jenniges (2014), they can also be horizontal, vertical and/or conglomerate. Horizontal FDI are those whereby firms duplicate the production activities at source in the host country, hence serving local and regional markets. Horizontal FDI is also referred to as "tariff-jumping" or "export-substitution" FDI. They are usually driven by market size and market growth of the host economy. On the other hand, vertical FDI refers to firms who locate different stages of production in different countries. Horizontal FDI is sometimes referred to as market-oriented or import-substituting investment, while vertical FDI is referred to export-platform investment (Markusen and Venables, 2005). Finally, conglomerate FDI is where an unrelated business is added to production line abroad. This is the most unusual form of FDI as it involves attempting to overcome two barriers simultaneously-entering both a foreign country and a new industry. FDI has three components: equity capital, reinvested earnings and intra-company loans (Mwega, 2009; Mwega and Ngugi, 2007). FDI may be financed through parent company transfer of funds to the new affiliate; borrowing from homecountry lenders; borrowing in the host country by the parent company, or any combination of these strategies. FDI also pertains to investments in infrastructure, equipment and/or organizations that allow the foreign investor to influence the management of the firm.

According to ADB and UNESCAP (2013), a significant share of FDI in developing economies is in production facilities whose products are exported to other countries rather than supplied in the domestic market. Many of these production facilities need to source some of their inputs from overseas. As a result, foreign direct investors will pay attention to a country's ease and cost effectiveness of importing and exporting goods and services before making an investment decision. A country that has committed itself to facilitating trade will tend to secure more FDIs and become more integrated into regional and global production networks.

Indeed, OECD (2005a) demonstrates that facilitated cross-border movement of goods would have a positive effect on the ability of a country to attract foreign direct investment and better integrate in international production supply chains. More recent empirical studies also support the notion that trade facilitation is a core component of any foreign direct investment development strategy and provides further evidence of the benefits associated with enhancing trade efficiency (Duval and Otoktham, 2014). In fact, Carr, et al., (2001) clearly suggests the need

to capture links between FDI and trade-related procedures, infrastructure and services.

The Government of Kenya has since independence endeavoured to create an enabling environment to attract and retain foreign investments. Leading in the reform agenda was implementation of structural adjustment programmes which involved the liberalization of the capital and financial account in an effort to promote greater openness to cross-border capital flows during the 1980s. This was followed by privatization of state corporations in the transport, communications and energy sectors starting in mid 1990s. Subsequent policy reforms were undertaken under the Economic Recovery strategy for Wealth and Employment Creation 2003-2007 and Kenya Vision 2030 development framework unveiled in 2007. The latter aims at boosting the country's competitiveness, thereby placing the country on the global platform as a preferred destination for investment. More structured public-private sector dialogue under the grand coalition government of President Mwai Kibaki and Prime Minister Raila Odinga saw further attempts to improve border and behind the border management processes designed to make import and export transactions easier. The most recent government commitment has been the ratification of the WTO's Trade Facilitation Agreement (TFA) in December 2015 with the broad aim of reducing trade costs both internally and in regional and external markets.

Kenya has been facing the challenge of how to attract more FDI in dynamic products and sectors with high income elasticities of demand away from the primary sector. Although trade facilitation indicators have improved, the FDI inflows have been rather sluggish though rising. The stock of FDI as a proportion of GDP remains very low. It is against this background that this study examines the extent to which trade facilitation indicators affect FDI flows.

#### 1.2 The Problem

Despite the reforms undertaken, Kenya has remained a poor performer of FDI although it is the strongest and most diversified economy in East Africa (Njoroge et al., 2015). Indeed, UNCTAD (2012) described Kenya as East Africa region's least effective suitor in attracting FDI. For instance, the FDI stock in 2014 was 7.2 per cent of the GDP compared to Tanzania's 35.5 per cent and East Africa's 24.7 per cent during the same year despite the various incentives such as tax holidays instituted by the government. In addition, a survey on investment performance in Kenya indicated that a number of companies have opted to shift from

<sup>1</sup> The Kenya Vision 2030 is the county's long-term development blue-print for the period 2008-2030. It aims to transform Kenya into a newly industrializing, globally competitive and prosperous country with a high quality of life for all citizens by the year 2030.

manufacturing to trading, while others relocated to other countries due the costly investment climate (KAM, 2008). Besides, Kenya has experienced difficulty in seizing opportunities generated by trade liberalization to attract FDIs and export manufactured commodities especially in developed markets. So far, the bulk of its exports to the European Union are agricultural, with minimal value addition: tea, coffee, cut flowers, vegetables, fruits and nuts. Although the majority of exports to the United States under the African Growth and Opportunity Act (AGOA) are processed and semi-processed apparels, the textile industry largely depends on imported fabrics and raw materials such as cotton, viscose, polyester, denim, nylon, and acrylics, since a competitive integrated domestic cotton industry does not exist.

So far, little empirical evidence exists on the link between trade facilitation and FDI in Kenya. Previous studies on determinants of FDI largely tested traditional market factors (Mwega and Ngugi, 2007) as well as Dunning's eclectic paradigm of ownership, location and internalization (OLI) advantages (Franco, et al., 2008; Njoroge, et al., 2015). More recent studies are recognizing the importance of non-traditional institutional and regulatory factors (Dikova and Witteloostuijin, 2007). However, they do not say much about how underlying trade-related costs in domestic and international transactions might affect FDI decisions. The role of transaction costs still remains largely neglected mainly due to lack of quality data on market entry, for example the one time cost to start business, enforcement of contracts in the wake of a shift from market-seeking to resource-seeking foreign investments. It is against this background that this paper attempts to fill this gap by running an empirical investigation on the effects of trade facilitation indicators on FDI flows in Kenya.

#### 1.3 Objectives of the Study

The general objective of this study is to investigate the effects of trade facilitation measures on foreign direct investments in Kenya. The specific objectives are:

- (i) To analyze the effects of compliance costs associated with domestic transactions on foreign direct investments;
- (ii) To analyze the effects of compliance costs associated with international transactions on foreign direct investments;
- (iii) Suggest appropriate policy recommendations.

#### 1.4 Rationale of the Study

The interest on trade facilitation emanates from several sources. First, as goods cross borders many times, first as inputs and then as final products, fast and efficient customs and port procedures are essential. Unduly complex processes and documentation raise costs and cause delays and ultimately businesses, economies and consumers bear the cost. Conversely, a country where inputs can be imported and goods and services can be exported within quick and reliable timeframes is a more attractive location for foreign firms seeking to invest.

Second, a national policy on trade facilitation is a key factor in the global value chains and development of export competitiveness (ADB and UNESCAP, 2013; OECD, 2015). Inefficient trade-related procedures and processes can delay the delivery of inputs and final products to external markets. Such inefficiencies can affect the ability of manufacturers and exporters to meet the "just-in-time" needs of their overseas customers, and prevent them from taking part in the growing number of regional and global production networks.

Third, trade facilitation seeks to remedy trade transaction costs. It recognizes that transaction costs are wasteful and undesirable for both business and government. Proponents of trade facilitation argue that its principles can increase business competitiveness, improve efficiency and control and promote investments both foreign and domestic. Therefore, it is widely argued that countries that implement trade facilitation reforms and enhance trade efficiency and connectivity attract more foreign direct investments (FDIs). According to the Gain (2015), if all countries reduce supply chain barriers halfway to global best practice (for example, Singapore), global GDP could increase by 4.7 per cent or US\$ 2.6 trillion and world trade by 14.5 per cent or US\$ 1.6 trillion, far outweighing the benefits from the elimination of all import tariffs. In addition, improving the quality of physical infrastructure increases its exports by more than 10 per cent.

Moreover, in so far as some of the imported inputs are further transformed domestically, and then re-exported along the value chain, steep transaction costs also tax the competitiveness of exports. In this context, trade facilitation can definitely play a role in reducing inefficiencies and cutting red tapes, thereby facilitating the functioning of international production networks, increasing the scope for firms to engage in new activities, and climb up the value chains (UNECA, 2013). In that regard, a clear knowledge about the sources of trade costs is critical in providing deeper insights into which precise trade facilitation instruments are likely to have the greatest effects on FDI. This is because different instruments are likely to have different effects depending on the nature and motivation of FDIs.

#### 2. Status of Trade Facilitation and FDI in Kenya

#### 2.1 Trade Facilitation

Kenya has been undertaking an integrated and comprehensive approach aimed at improving its trade facilitation systems. The priority programmes of trade facilitation focus on addressing constraints in business registration, procedures and documentations, logistics services, transit procedures and requirements, information availability, and exchange as well as cooperation among various agencies and with neighbouring and third countries.

Implementation of trade facilitation is carried out within national programmes under Vision 2030 framework, and through regional integration frameworks such as the EAC and COMESA. Kenya also ratified the WTO's Trade Facilitation Agreement (TFA) in 2015 as evidence of her commitment to reducing trade costs both internally and in regional and external markets. The TFA contains provisions that aim to expedite the movement, release and clearance of goods, including goods in transit. It also sets out measures for effective cooperation between customs and other appropriate authorities on trade facilitation and customs compliance issues. It further contains provisions for technical assistance and capacity building.

According to OECD (2013), Kenya performs better than most Sub-Saharan African and low income countries in the areas of harmonization and simplification of documents, automation, streamlining of procedures and external border agency cooperation. However, Kenya's performance in involvement in consultations with traders, fees and charges, and internal border agency cooperation is below that of Sub-Saharan African and lower income countries. In the World Bank's Ease of Doing Business 2015 report, Kenya is ranked number 136 out of 189 economies in the aggregate ease of doing business.<sup>2</sup> Thus, in the EAC region, the country is ranked third after Rwanda and Tanzania which are numbers 46 and 131, respectively, in global ranking. However, the country scores the best regional performer in the number of procedures in dealing with construction permits, getting electricity connected and protection of minority investors (World Bank, 2015).

With regard to enhancement of efficiency and competitiveness at the EAC level, some of the specific initiatives include but not limited to:

<sup>2</sup> The report measures and tracks changes in regulations affecting 11 areas in the life cycle of a business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labour market regulation.

- 1. Establishment of Single Customs Territory<sup>3</sup> which encompasses three pillars: free circulation of goods, revenue management system, and legal and institutional framework.
- 2. Improvement of the port of Mombasa, support to Northern transport corridor and the One Stop Border Post (OSBP) facilities.

The single window trade facilitation, referred to as the Kenya TradeNet System, was launched by East African Heads of State on 2<sup>nd</sup> May 2014. The system aimed at speeding up Customs clearance processes for air, sea and land cargo. It brings together all key stakeholders involved in importation and exportation of goods under one online portal. It provides a single point of entry for traders to submit and process their trade transactions, check status of requests and obtain certificates and other clearances. The establishment of the Single Customs Territory (SCT) has significantly reduced the duration and cost of clearance of cargo. For instance, the time for clearance of cargo destined for Kigali has dropped from 21 to 6 days since the launching of the SCT in 2014, according to Rwanda Revenue Authority.

The transport corridor links the landlocked countries of Uganda, Rwanda and Burundi with Kenya's maritime port of Mombasa. It serves the Eastern part of the Democratic Republic of Congo, Southern Sudan and Northern Tanzania. The improvement of the Mombasa port under the regional framework of the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) has substantially reduced the average dwell time for cargo inside the port and transit durations. For instance, transit time between the port gate and Malaba stands at 3.4 days, compared to 12 days in 2008 for most transit traffic (NCTTCA, 2015).<sup>4</sup> In addition, the transportation logistics cost has reduced as shown in Table 2.1.

Table 2.1: Trends in transport costs (US\$) of TEU5 along the Northern Corridor

From Mombasa	Bujumbura	Goma	Juba	Kampala	Kigali	Nairobi
2011	8,000	9,500	9,800	3,400	6,500	1,300
2014	6,500	7,000	4,700	2,900	4,800	1,045
Change (%)	-19	-26	-23	-9	-26	-20

Source: NCTTCA. Assessed from http://www.ttcanc.org/documents.php on 14<sup>th</sup> March, 2016

<sup>3</sup> The single window is a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfill all import, export, and transit-related regulatory requirements. If information is electronic, then individual data elements is only submitted once

<sup>4</sup> Sourced from http://www.ttcanc.org/documents/Impact AssessStudy.pdf.

<sup>5</sup> Twenty foot equivalent unit refers to an inexact unit of cargo capacity often used to describe the capacity of container ships and container terminals.

#### 2.2 Foreign Direct Investments

Whereas investments in trade facilitation are largely driven by the need to enhance trade flows, their impact on FDI flows are equally being recognized, given the complementarity between trade and investments. Indeed, Kenya has since independence undertaken important reforms to promote domestic and foreign investments through various policies, strategies and regulations. The reforms are largely depicted in the evolution of the respective roles of the public and private sectors with a shift in emphasis from public investment to private sector-led investment. The Government of Kenya gradually introduced marketbased reforms and provided more incentives for both local and foreign private investment. These included liberalization measures such as decontrol of prices and the foreign exchange rates in the 1980s; the elimination of unnecessary licenses and simplification of existing ones; provision of incentive schemes, including the Manufacturing Under Bond, export processing zones, duty remission scheme, zero-rating of capital goods and raw materials and repatriation of profits, etc. In addition, foreign investors seeking to establish a presence in Kenya generally receive the same treatment as local investors, and multinational companies make up a large percentage of Kenya's industrial sector. Furthermore, there is no discrimination against foreign investors in access to government-financed research, and the government's export promotion programmes do not distinguish between local and foreign-owned goods.

In 2005, the Government of Kenya reviewed its investment policy and launched a private sector development strategy and the investment code, articulated in the Investment Promotion Act of 2004. The objective of the Act is to attract and facilitate investment by assisting investors in obtaining the licenses necessary to invest, and by providing other assistance and incentives. The pinnacle of the government's efforts was the establishment of the Kenya Investment Authority (KIA) as the statutory body charged with the responsibility of promoting and facilitating investments. The authority was intended to provide 'a one stop office' to help investors acquire requisite licenses, permits, incentives and after-care services.

Further regulatory reforms include the Licensing Act of 2007, which eliminated or simplified 694 licenses, and a 2008 reduction in the number of licenses required to set up a business from 300 to 16. Besides, the Business Regulation Act of 2007 established a Business Regulatory Reform Unit within the Ministry of Finance to continue the deregulation process.

The Grand Coalition government of President Mwai Kibaki and Prime Minister Raila Odinga began holding quarterly meetings as part of a public-private dialogue in August 2008 in a bid to make the country more appealing for foreign and domestic private investment. The sessions dubbed the "National Business Agenda" chaired by the Kenya Association of Manufucturers (KAM), the Kenya Private Sector Alliance (KEPSA), the East Africa Business Council (EABC), and other business leaders discussed what needed to be done to improve the country's business climate. Consequently, the Port of Mombasa began to operate on a 24/7 basis, whereas the number of roadblocks and weigh stations on the Mombasa-Nairobi-Busia Northern Corridor Highway were dramatically reduced. Besides, the Kenya Ports Authority (KPA), the Kenya Bureau of Standards (KEBS), and Kenya Revenue Authority (KRA) began to harmonize their regulations and adopt a common accreditation and computerized clearance system to expedite cargo inspection and clearance. In 2009, Kenya launched a national e-Registry to ease business license processing and help improve transparency.

Despite the highlighted reform efforts, FDI flows into Kenya remained stagnant for a long time. The trend of FDI stock and flows in Kenya is presented in Figure 2.1. The data shows that historically, FDI flows into Kenya have been stagnant for long periods and only began rising in the recent past.

5000 4000 2000 2000 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 FDI Stock FDI Flows

Figure 2.1: Kenya's FDI inflows and stocks 2000-2014

Source: UNCTAD FDI/TNC database

From Figure 2.1, FDI remained stagnant between 2000 and 2006 and increased during 2007. The rise was mainly due to privatization of state enterprises following recommendations by two commissions set up by the government in 1979 and 1982. The commissions identified 240 publicly-owned firms, listing 207 as non-strategic and the remaining 33 as strategic. During the first round of privatization, from 1992 to 2002, the government fully or partially privatized most of the non-strategic publicly-owned firms. The second round of privatization took place between 2003 and 2007 in which a number of large strategic firms were partially or fully privatized, including KenGen (the primary electricity generator), Kenya Railways, Mumias Sugar, Kenya Reinsurance, Telkom Kenya,

and Safaricom. These transactions netted over US\$ 1 billion towards supporting additional development and infrastructure.

However, the 2007 growth was short-lived and sharply dropped the following year due to the 2007/8 post-election violence and the onset of the global financial crisis. However, a more favourable investment climate put in place by the Grand Coalition government in mid 2008 led to the gradual increase in the period 2010 - 2011. In keeping with its privatization strategy, the government announced the third round of privatization in mid-December 2008 that it would sell its shares in 16 parastatals, including the National Bank of Kenya, the Kenya Electricity Generating Company (KenGen), the Kenya Pipeline Company, the Kenya Ports Authority, and various sugar, cement, dairy, wine, and meat processing firms. The government also put hotels owned by the Kenya Tourism Development Authority up for sale in 2009, although the privatization of state-owned enterprises has not been completed. The approval of a legal and institutional framework for publicprivate partnerships in December 2008 also paved way for private firms to sign management contracts, leases, concessions, and/or build-own-operate-transfer (BOOT) agreements with the government on various infrastructure projects such as water, energy, ports, and roads sectors. These measures together triggered the upsurge of investments in infrastructure-related sectors falling under the ambit of Vision 2030 framework. The latest trend is expected to continue especially following the recent discovery of oil, gas, rare earth minerals and coal in various parts of the country.

A comparison of FDI flows in the EAC (Figure 2.2) indicates that Kenya's FDI remains behind neighbouring Uganda and Tanzania, although investment levels have increased in recent years from US\$ 339 million in 2009 to an estimated US\$ 989 million in 2014 (UNCTAD, 2015).

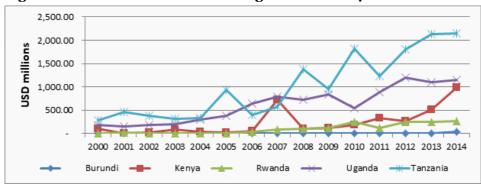


Figure 2.2: FDI inflows in the EAC region 2000-2014

Source: UNCTAD FDI/TNC database

The data on the types of investments in Kenya are presented in Table 2.2. It is noted that greenfield investments constitute the bulk of FDI flows into Kenya compared to cross-border mergers and acquisitions.

Table 2.2: Types of investment flows in Kenya (US\$ millions)

	2005 - 2007	2012	2013	2014
Cross-border merger and acquisition	146	86	103	1
Greenfield investments	250	1,017	3,635	2,305

Source: UNCTAD (2015)

The sectoral FDI flows are shown in Table 2.3. According to Government of Kenya (2015), the wholesale and retail trade, and repair of motor vehicles and motorcycles was the main recipient of FDI accounting for 20.6 per cent and 24.3 per cent in 2012 and 2013, respectively. This was followed by the financial and insurance sector which accounted for 18.0 per cent and 18.2 per cent of the FDI during the review period. FDI inflows into wholesale and retail trade, and repair of motor vehicles and motorcycles increased by 9.1 per cent to Ksh 41,408 million in 2013 from Ksh 37,948 million in 2012. Inflows into electricity, gas, steam and air conditioning supply increased from Ksh 291 million in 2012 to Ksh 17,183 million in 2013. Other sectors that recorded growth in inflows were manufacturing (22.1%) and construction (47.0%).

Table 2.3: FDI inflows by sector 2012-2013 (Ksh millions)

Sectors	2012	% share in 2012	2013	% share in 2013
Wholesale and retail of motors	37,948	20.6	41,408	24.3
Financial and insurance services	33,050	18.0	31,025	18.2
Manufacturing	22,362	12.2	27,306	16.0
Information and communication	22,284	12.1	14,255	8.4
Transport and storage	20,358	11.1	3,390	2.0
Construction	15,454	8.4	22,713	13.3
Accommodation and food service	10,551	5.7	1,880	1.1
Mining and quarrying	10,513	5.7	7,594	4.5
Education	4,004	2.2	1,071	0.6
Agriculture, forestry and fishing	3,649	2.0	2,262	1.3
Other services	2,448	1.3	-	-
Professional, scientific and technical	489	0.3	137	0.1
Administrative and support services	356	0.2	136	0.1
Electricity, gas and air condition	291	0.2	17,183	10.1
Human health and social work	65	0.0	-	-
Real estate	32	0.0	24	0.0
Total	183,853	100.0	170,382	100.0

Source: Government of Kenya (2015)

#### 3. Literature Review

#### 3.1 The Relationship between Trade Facilitation and FDI

The link between foreign direct investment (FDI) and trade is firmly established in economic literature. Casson (1990) has for example suggested that FDI is a "logical intersection" of the theory of international capital markets, the theory of the firm and trade theory. Singh and Jun (1995) and Tanaka (2006) mention that firms might conduct FDI for the specific purpose of "tariff hopping" and avoiding trade costs, suggesting that trade issues have significant sway when firms make investment decisions.

Trade across boundaries involves transaction costs. The OECD (2001) classifies transaction costs in two forms: direct costs or costs of compliance associated with collection and processing of information, and charges for trade-related services e.g. for freight, insurance and handling and indirect costs or time-sensitive costs brought about by administrative processes and inventory charges. Other costs can be brought about by a lack of transparency or of uniformity in the interpretation of regulations and contracts which increases the effective costs of producing the necessary trade and procedural information.

Trade facilitation measures include five main elements: simplification of trade procedures and documentation; harmonization of trade practices and rules; more transparent information and procedures of international flows; recourse to new technologies to promote international trade; and more secured means of payment for international commerce (Zaki, 2014). Besides, these measures can generally be undertaken along two dimensions: a "hard" dimension related to tangible infrastructure such as roads, ports, highways, telecommunications, and the "soft" dimension related to transparency, customs management, the business environment, and other institutional aspects that are intangible (Portugal-Perez and Wilson, 2010).

A growing number of studies have emphasized the complementary relationship between trade and investment, suggesting that reductions in inefficient trade procedures may also be an effective policy for attracting foreign direct investment (UNECA, 2013; Swenson, 2004 and Markusen and Venables, 2005). Inefficient import and export procedures give rise to direct costs to trading firms because they will have to devote resources to complying with the procedures rather than directly to productive activities. However, there are also large indirect costs involved because of the delays that are as a result of unnecessarily complex procedures. These costs may arise in several ways. The most straightforward reason is that there may be depreciation costs, either because products quickly lose their market value—examples include fashion and advanced technology—or in

terms of physical depreciation. Delays also increase costs for international traders because companies have to keep goods in store instead of quickly shipping them. Long delays are also associated with increased uncertainty about delivery times, which means that companies are unable to take advantage of business and export opportunities and are unable to use modern just-in-time production techniques (OECD, 2001).

According to Olofsdotter, et al., (2013), the effect of trade facilitation on FDI is ambiguous on a theoretical basis. This follows the motivations for FDI and the relationships between horizontal and vertical FDIs with trade. Horizontal FDI typically refers to a situation where firms duplicate the production activities they have at source in host countries, while vertical FDI refers to firms who locate different stages of production in different countries. Horizontal FDI is designed to serve foreign customers and can be viewed as a substitute to exports. This type of FDI is affected by factors such as market size and trade costs, whereby higher transport costs or trade barriers increase the incentives for the multinational firm to choose FDI over export as a mode to reach foreign markets. Thus, in such a case, inefficient trade procedures would increase the probability of the firm choosing FDI over exports, while trade facilitation would have the opposite effect.

On the other hand, vertical FDI stems from comparative advantage reasons where stages of production are located in different countries based on where they can be done at lowest costs. This will probably be accompanied by trade in both intermediate and final goods between the parent company and its foreign affiliates. Thus, trade and FDI can in this case be seen as complementary activities. Similarly, export-platform FDIs are also expected to be positively associated with trade. In these cases, the existence of efficient and predictable procedures at the border should have a positive effect on FDI.

There are at least three major types of FDIs. The market-seeking FDI usually serves local and regional markets and involves the replication of production facilities in the host countries. Market-oriented FDIs are sometimes referred to as horizontal FDI whereby firms duplicate the production activities they have at source in host countries. These are also referred to as 'tariff –jumping' or 'export-substitution' FDI. The latter is mainly driven by market size and market growth of the host economy. Due to market and income considerations, FDIs in small and poor countries are unlikely to be of the market-seeking type (Lim, 2001). The second type is the resource or asset-seeking FDI and involves the relocation of parts of the production chain to the host country. This is usually driven by the availability of low-cost labour and is often export-oriented. This type of FDI is also attracted to countries with abundant natural resources such as oil and gas. This is also called vertical FDI whereby firms locate different stages of production

in different countries (Markusen and Venables, 2005). The third type of FDI is the efficiency seeking type where firms gain from common governance of geographically dispersed activities in the presence of economies of scale and scope. The idea here is to take advantage of special features such as labour costs, skills of the labour force and quality of infrastructure (Abala, 2014). Therefore, trade facilitation is quite often promoted to reduce transaction costs and attract FDIs, especially those having international and/or regional production networks.

#### 3.2 Empirical Literature

Empirical literature on trade and FDI is vast, ranging from studies about the relationship between FDI and trade as complements or substitutes (Swenson, 2004), to studies examining the factors affecting firms decision to engage in FDI rather than export (Helpman, et. al, 2004; Markusen and Venables, 2005). The policies, institutions, and infrastructure maintained by African governments and the effects they have on transactions costs are crucial in encouraging or discouraging firm-specific learning and the development of competitive advantage and export industries (Collier et. el, 1999).

Dollar et al. (2004) investigated the relationship between investment climate and international integration using a probit model. Based on survey results from 7,302 companies in eight developing economies (including Bangladesh, Brazil, China, Honduras, India, Nicaragua, Pakistan, and Peru), the authors conclude that efficiency of customs administration is a key determinant of foreign investment.

The study by Eifert and Ramachandran (2004) analyzed the investment climate data focusing on selected African countries and benchmarking with China, India and Morocco. The study estimated that if the number of days required to clear customs were halved in Ethiopia, average firm-level productivity would increase by 18 per cent. Besides, the authors argue that the returns to effective customs reform in more inefficient countries are substantial and have significant potential to raise investment attractiveness.

Engman (2005) examined the economic impact of trade facilitation on trade flows, government revenue and foreign direct investment and reviewed recent quantitative work on border-related trade transaction costs for over 15 years in OECD countries. The study established that inefficient border procedures negatively affect a country's ability to attract foreign direct investment because of the resulting costs and risks of doing business.

Chimilila et al. (2014 looked into the impact of trade facilitation in the East Africa Community (EAC). Using descriptive research methods, the study found that implementation of trade facilitation initiatives has improved trade performance,

FDI inflows and trade taxes collection in all EAC countries. However, Tanzania performed better than other EAC countries in terms of FDI inflows and contribution of export to GDP. Besides, whereas the study found a significant positive relationship between countries' trade facilitation and export performance, trade facilitation was found to have no significant relationship on FDI flows.

In Kenya, several studies on the determinants of FDI have been carried out. Njoroge and Okech (2011) assessed the factors that affect foreign direct investment (FDI) inflow in Kenya's horticultural industry. The study attributed low foreign investments in the horticultural sub-sector to poor infrastructure, especially road network and telecommunications. In addition, cumbersome regulatory framework subject to bureaucratic and multiple screening and approval system; erratic weather conditions; unfair investment policy requirements for foreign investors; unfavourable labour laws and trade union activities; inadequate policy framework for fair competition; and stringent import requirements in the EU market constrained increased FDI flows into Kenya.

Using Johansen cointegration technique, Kenaro (2006) established that economic openness and human capital affects FDI positively in the short run. Likewise, inflation and real exchange rate have a negative influence on FDI inflows in the short and long run, respectively. According to Abala (2014), the inability to attract FDI was largely due to macroeconomic instability, corruption, inconsistencies in economic policies and regulations, deteriorating public service and infrastructure. With regard to the drivers of economic growth and FDI, the study shows that FDIs in Kenya are mainly market-seeking and these require growing GDPs, political stability and good infrastructure, market size as well as reduction in corruption levels.

A survey conducted by the Kenya Association of Manufacturers (KAM) in 2008 identified several factors that contributed to the poor investment climate, including the high cost of manufacturing due to exorbitant electricity tariffs, poor infrastructure (notably roads and rails), and hefty transport costs.

In addition, the Foreign Investment Survey 2015 (Government of Kenya, 2015) established that domestic market growth potential; rule of law and existing regulations; availability of skilled workforce; quality of infrastructure and logistics; and access to other markets as the five major factors attracting them to do business in Kenya.

#### 4. Methodology

#### 4.1 Theoretical Background

The proximity-concentration trade-off theory initially developed by Brainard (1993) and improved by Helpman et al. (2004), also referred to as the HMY Model, forms the theoretical background of this study. According to this theory, trade and FDI have complementary relationships and exhibit substitute strategies when engaging in foreign markets. A firm gives up concentration of its production, as the foreign plant is a duplicate of the domestic one, but achieves proximity to the foreign market through the foreign production facility. On the other hand, by exporting, production is concentrated in one domestic plant but the firm gives up proximity of the producing plant and the foreign market. The decision of interest to this study is that of a foreign firm investing in the Kenyan market given the alternative to export into the same market. A graphical representation of the PCT theory is indicated in Figure 4.1.

Profits  $(\pi)$   $\begin{array}{c} \Pi_D & \pi_F & \pi_X \\ \hline f_D & C_X & C_F \end{array}$ Demand  $\begin{array}{c} f_D & f_X & f_F \end{array}$ 

Figure 4.1: A graphical version of the PCT theory

Source: Helpman et al. (2004)

In Figure 4.1, all firms incur fixed production costs  $f_D$  in domestic markets. It is the cost of starting a firm and continuing its operations in the domestic market. International firms in addition pay sunk costs  $f_X$  if they want to export. It also constitutes distribution and servicing networks in a foreign country. The fixed costs  $f_F$  include the distribution and servicing network costs, and the costs of forming a subsidiary in a foreign country. The profit slope  $\pi_X$  differs from the others  $\pi_D$  and  $\pi_F$  due to differences in variable costs involved in exports. On the other hand,  $\pi_F$  is further out due to duplicated overhead costs of maintaining two separate plants in both source and host country.  $C_D$  and  $C_X$  are the break-even

points for the firm in domestic market and exporting to the foreign markets, respectively. Above those points, firms will continue to produce and sell to the domestic and foreign markets. The point  $C_F$  is that which at which a firm switches from exporting to a foreign market to investing and establishing a foreign affiliate to serve a specific market.

According to HMY model (2004), the decision between exporting and investing is decided by profits, whereby more profitable firms seek to invest in foreign affiliates while less profitable ones settle on exporting. It is argued that the more productive a firm is, the less cost it incurs from its operations and therefore more likely to engage in costlier and riskier alternatives in supplying a market. By extension, profitability and productivity are influenced by trade costs. Thus, by influencing trade costs, trade facilitation as looked at in this paper affects investment decisions by foreign firms.

#### 4.2 Conceptual Framework

The link between trade and investment is illustrated by the complementarities and interdependence between them. According to UNCTAD (2015), trade facilitation measures have positive effects on export-oriented investment as well as investments that benefit from facilitated imports. The benefits of trade facilitation can be evaluated in terms of its effect on trade transaction costs. Estimates of such costs vary significantly, and it is useful to distinguish between direct and indirect costs. Direct costs include the cost of preparing documentation, and complying with various customs and other regulations. These may also include the cost of moving goods from factory to port, handling costs at the port, finance and insurance, and international transport costs. Indirect costs include the opportunity costs associated with time and delays in moving the goods from the buyer to the seller. These have been estimated to account for about 80 per cent of total trade transaction costs.

Equally, investment facilitation measures such as creating a conducive business environment will have positive effects on exports by attracting export-oriented investment which results in the build-up of critical productive capacities. This circle is presented in Figure 4.2 showing how targeted interventions on trade and investment can help build productive capacities.

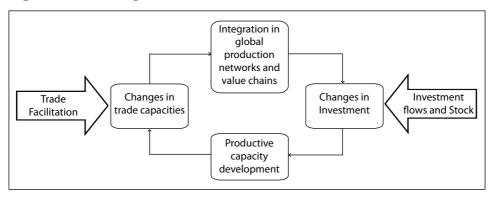


Figure 4.2: Linking trade facilitation and investment

Sources: Adapted from UNCTAD (2015)

Trade facilitation enhances domestic and external trade flows thereby leading to greater integration into wider productive networks and value chains. The latter triggers development in productive capacities depending on the nature and availability of markets. The changes in investment flows in turn affect production capacities. Productive capacities for trade constitute three pillars, namely: (1) productive resources (infrastructure and productive assets); (2) linkages with markets; and (3) capabilities, i.e. skills, entrepreneurship and technology. Changes in productive capacities for trade influence the nature and intensity of trade and the cycle of trade facilitation and investment.

#### 4.3 Empirical Model

A macroeconomic approach to FDI is used as the empirical framework for this study. Specifically, the gravity model is used to evaluate the significance of trade facilitation factors on FDI and to examine the importance of these factors. The core idea behind the gravity model of trade is the notion that trade is determined by the economic size of the countries involved as well as the physical distance between them (Mátyás, 1997). Pioneered by Tinbergen (1962), the gravity equation for trade states that the trade flow from country i to country j, denoted by  $T_{ij}$ , is proportional to the product of the two countries' GDPs, denoted by  $Y_i$  and  $Y_j$  and inversely proportional to their distance,  $D_{ij}$ , and  $F_{ij}$  broadly construed to include all factors that might create trade resistance as indicated in equation (1). In its simplest form, the model is specified as:

$$T_{ij} = \alpha_{o} Y_{I}^{\wedge}(\alpha_{I}) Y_{j}^{\wedge}(\alpha_{2}) D_{ij}^{\wedge}(\alpha_{3}) F_{ij}^{\wedge}(\alpha_{4}) \dots (1)$$

Where  $\alpha_0$ ,  $\alpha_1$ ,  $\alpha_2$ ,  $\alpha_3$  and  $\alpha_4$  are unknown parameters.

The gravity framework following Ledyaeva and Linden (2006) is used to analyze the determinants of FDI flows. The baseline model to be estimated is as presented in equation (2).

$$lnFDI_{ijt} = \beta_1 ln(GDPC_{it}) + \beta_2 ln(GDPC_{jt}) + \beta_3 ln(Dist_{ij}) + \beta_4 (Comlang_{ij}) + \beta_5 (Border_{ij}) + \varepsilon_{ijt} \quad ...(2)$$

Where  $FDI_{ijt}$  is the flow of FDI from the investing country I to the hosting country j in year t.

 $GDPC_{i}$  is the GDP per capita of country i at time t.

 $GDPC_{j}$  is the GDP per capita of country j at time t.

 $Dist_{ij}$  is the distance in kilometers between the two countries

 $Comlang_{ij}$  represents the presence of a common language between the source and host country. It takes a value of 1 if they share a common language and zero if they don't.

 $Border_{ij}$  takes the value of 1 if the two countries share a common border and 0 if they don't share a common border.

 $\varepsilon_{ii}$  is the error term.

Foreign direct investments depend on the extent to which cheaper factors of production can be accessed overseas and also the relative ease with which intermediate goods can be moved in and out of the countries where they are being processed before being assembled into final goods. Thus, transaction costs across borders can therefore be expected to be crucial determinants of FDI in this context. The empirical model specified in equation (2) is modified by incorporating various transaction costs and other trade facilitation related indicators and presented as equation (3).

$$\begin{aligned} lnFDI_{ijt} &= \beta_{1} \, ln(GDPC_{it}) + \beta_{2} \, ln(GDPC_{jt}) + \beta_{3} \, ln(Dist_{ij}) + \beta_{4} \, (Comlang_{ij}) + \beta_{5} \\ (Border_{ij}) + \beta_{6} \, ln(Bcost_{jt}) + \beta_{7} \, ln(Tcost_{ijt}) + \beta_{8} \, ln(Dtax_{jt}) + \beta_{9} \, ln(Contract_{jt}) + \beta_{10} \\ ln(ICT_{jt}) + \beta_{11} \, ln(Port_{jt}) + \varepsilon_{ijt} \, ... \end{aligned} \tag{3}$$

The definitions for the added independent variables in equation (3) are as follows:

 $Bcost_{jt}$  refers to the cost of starting a new business in host country.

 $Tcost_{ijt}$  measures the cost to import a 20-foot container from investing country's major port (*i*) to host country's major entry port (*j*).

 $Dtax_{it}$  refers to domestic taxes on profits or capital gains in host country.

 $Contract_{jt}$  refers to the number of days required to enforce a contract in host country.

*ICT*<sub>i</sub> measures the cost of internet use per 100 in the host country.

 $Port_{jt}$  refers to the quality of port infrastructure, whereby 1=extremely under-developed to 7=well developed and efficient by international standards.

The additional variables should, to a large degree, capture the transaction costs inflicted on foreign investors, which are of main interest in this study.

A major imperfection of the gravity model is the absence of substitution between FDI flows and ignoring the third country's effect on the FDI flows. However, the estimated model is controlled for all unobserved effects. The fixed effects Poisson Pseudo-Maximum-Likelihood (PPML) estimation of the equation in its original multiplicative form is used following Santos and Tenreyro (2006). The estimator has three advantages over the traditional approach of making the model linear by taking logarithms and then estimating it by a Least Squares (LS) estimator. First, the PPML estimator can be used on the model in its original multiplicative form, implying that the observations with zero FDI flows do not have to be dropped. Given that the value of FDI is zero for a lot of the observations in our dataset, this is particularly relevant. Second, the PPML estimator is consistent, even in the presence of heteroskedasticity. This is not true for the OLS estimator. Third, interpretation of the coefficients from the Poisson model is straightforward, and follows exactly the same pattern as under OLS.

#### 4.4 Data

The bilateral FDI data from 12 source countries for the period 2001–2012 is obtained from UNCTAD as shown in Appendix Table 1. The source countries were chosen on the basis of having the best consistent FDI flow data. The aggregate FDI inflows are used due to lack of appropriate sectoral FDI information. The study treats missing values as missing and zero and negative foreign investment data as zero. Indeed, while there is a possibility that missing value is either unreported FDI (non-zero values) or zero value, assuming that unreported FDI is zero might lead to biases in the estimation of the model.

The GDP per capita data, measured in US\$, and Internet users per 100 people are obtained from the World Bank's World Development Indicators. Internet users are individuals who have used the Internet in any location within Kenya in the past 12 months. Internet can be use through a computer, mobile phone, digital televisions, etc. Geographical distance between most populated cities (in kilometres), contiguity and bilateral common language dummy variables are obtained from the Centre for Prospective Studies and International Information (CEPII).

The other trade facilitation indicators, including business start up costs, contract enforcement periods, quality of port infrastructure and cost of imports are obtained from the World Bank Development Indicators reports, NTCCA and World Bank's Doing Business reports. The cost of business start-up is measured as the cost to register a business and is normalized by presenting it as a percentage of GDP per capita. Measuring the ease of starting a business involves recording all procedures officially required by an entrepreneur or investor to start or formally operate. When governments make registration easy, more entrepreneurs start business in the formal sector, creating more jobs and generating more revenue for the government.

On the other hand, the time required to enforce a contract is the time period taken to resolve commercial disputes. It is a measure of the efficiency of the judicial system in resolving commercial disputes before law courts. The quality of port infrastructure measures business executives' perception of their country's port facilities. The scores range from 1 (port infrastructure considered extremely underdeveloped) to 7. The cost of imports measures the fees levied on a 20-foot container in U.S. dollars. All the fees associated with completing the procedures to export or import the goods are included, i.e. the costs of documents, administrative fees, terminal handling charges and inland transport. Finally, domestic taxes on profits and capital gains are levied on the actual or presumptive net incomes of individuals, or profits of corporations and enterprises.

#### 4.5 Apriori Assumptions

The following apriori assumptions are made in determining the effects of trade facilitation indicators on FDI flows in Kenya.

Table 4.3: Description of independent variables

Variable	Expected sign
GDPC (host country)	+ve or -ve
GDPC (source country)	+ve
Distance	-ve
Common language	+ve
Common border	+ve
Cost of business start up	-ve
Cost of import	+ve or -ve
Domestic tax on income, profits and capital gains	-ve
Contract	-ve
Internet users (per 100 people)	+ve or -ve
Quality of port Infrastructure	+ve
Average import tariffs	-ve

#### 5. Research Findings

The results for the regression analysis are presented in Table 5.1. In the classical gravity model (1), all the coefficients have expected signs, i.e. GDP per capita for the source and host countries and language have positive effects on FDI flows, while distance has negative effects. It is noted that the statistical significance of distance and common language increases when the model is expanded to include trade costs. The results show that GDP per capita of the source country and commonality of language have significant positive effects on FDI in Kenya both with and without inclusion of trade costs.

Table 5.1: Regression results

	Classical Gravity model (1)	Adjusted Gravity model (2)	Adjusted Gravity model (3)
Dependent Variable: FDI			
Constant	10.561 (3.30)	1.246 (0.07)	10.741 (0.32)
GDP per capita (source country)	0.819 * (3.13)	1.632* (3.24)	1.460* (3.50)
GDP per capita (host country)	0.695 (1.52)	-2.621 (-1.20)	-3.630 (-0.88)
Distance	-0.908 (-1.82)	-2.416 (-2.01)	-2.838* (-3.68)
Common language	1.359* (2.09)	3.148* (5.96)	3.118* (6.05)
Domestic taxes on profits		19.076 (1.48)	19.976 (1.56)
Port quality		0.661 (1.24)	0.742 (1.17)
Enforcement of contracts		-16.499* (-2.82)	-2.899 (-0.18)
Business costs		-5.160 (-1.21)	-6.291 (-0.56)
Tcost			-0.599 (-1.15)
ICT			-4.288 (-1.53)
Average import tariffs			-24.593 (-1.21)
No. of observations	144	144	144
R-squared	0.03857	0.17869	0.1886

t-values in parenthesis \*Significant at 1% level

Source: Author's regressions

The results regarding trade facilitation indicators or underlying transaction costs within the domestic economy are presented in the adjusted model (2). In this model, all coefficients exhibit expected signs, except the coefficients for GDP per capita and taxes on capital gains which are positive though insignificant. The coefficient of GPD per capita is negative, implying that a 1 per cent increase in GDP per capita reduces FDI inflow by 2.6 per cent. Ideally, an increase of GDP per capita coupled with strong labour unions raises the costs of labour, making exporting sectors become uncompetitive in external markets. In regional markets such as the EAC, investors would shift to less costly markets. Such a scenario reflects the effects of resource or asset-seeking FDIs driven by low cost labour and which are oriented towards exports. This perhaps explains the flow of FDIs from the more advanced Kenyan economy to the other EAC countries as evident from available statistics. The negative relationship between FDI and GDP per capita is consistent with other study findings such as Brecher and Diaz Alejandro (1977), Brecher (1983), and Boyd and Smith (1992). This could be attributed to institutional factors, including strong labour unions which raise the cost of labour and discourage resource seeking investments. On the other hand, the coefficient of domestic taxes on profits is positive. This could be attributed to improvements in investment climate where firms are able make profits and are therefore willing to comply so long as they remain profitable. In addition, the introduction of the electronic payment systems has also made tax payments much faster, efficient and convenient.

As expected, the quality of port infrastructure is positive but insignificant. This is consistent with the fact that global sourcing which is affected by the quality and efficiency of the port infrastructure represents a significant share of investment flows (Engman, 2005). This implies that improvements in the entry port positively affect FDI flows through increased efficiency in clearance and quality of logistics performance.

The indicators related to improvement of business environment, i.e. the number of days required for enforcement of contracts and the costs of starting a new business are inversely related to FDI flows as expected. It is also notable that the coefficient for contract enforcement is significant. The results indicate that a 1 per cent reduction in the number of days required for enforcement of contracts increases FDI inflows in aggregate by 16.5 per cent. This is because effective resolution of commercial disputes is essential for entrepreneurs because they interpret the rules of the market and protect economic rights. Efficient and transparent courts encourage new business relationships and therefore new foreign investments. The judicial reforms undertaken including the implementation of the case management system helped improve the efficiency of commercial dispute settlement in Kenya.

With regard to cost of start-up business, the coefficient is negative but not significant. This could be attributed to the fact that Kenya eased business start-up costs by, among others, reducing minimum capital requirement thresholds, getting the memorandum and articles of association stamped, tax and value added registration procedures, and digitizing records. Overall, the results indicate the essentiality of a conducive business environment in Kenya in attracting FDIs.

The adjusted model (3) incorporates trade costs associated with international transactions, including transport costs, Internet use and average import tariffs. All the indicators are negatively related to FDI inflows into Kenya but are not significant. The transportation costs reflect all fees associated with completing the procedures to export or import. The insignificance could be attributed to the fact that the bulk of the FDI flows into Kenya were horizontal as opposed to vertical, which involve intra-industry trading, hence export and import. Deepening Internet use and technological advances reduce the cost of trade-related transactions and enhance firms' abilities to coordinate international production networks. Generally, the signs of the coefficients of international transaction indicators are consistent with previous studies (Engman, 2005). This is a common phenomenon for efficiency-seeking and market-seeking FDIs targeting regional markets.

#### 6. Conclusions and Policy Recommendations

This paper investigated the effects of trade facilitation measures in the context of trade costs on FDIs in Kenya. The relevance of trade facilitation stems from the fact that there is growing reorganization of production processes and global value chains by transnational corporations spread across different countries. Trade-related processes directly and/or indirectly affect the cost of importing or exporting intermediate products and therefore competitiveness and investment flows across borders.

The Government of Kenya has undertaken several reforms including the liberalization of the capital and financial account in an effort to promote greater openness to cross-border capital flows. In addition, steps have been taken with regard to expansion of infrastructure, human capital development and innovation in the financial and communication sectors under Kenya Vision 2030 development framework. These efforts have made Kenya's economy remain the strongest and most diversified in the eastern and southern African region. However, Kenya's FDI performance has been poorly rated. This is partly attributed to prevailing infrastructural, regulatory and security related constraints which raise the cost of production and scare away investment opportunities. This study looked into the effects of trade facilitation indicators on foreign investments in Kenya in light of the growing global value chains.

The results of the analysis indicate that improvement of indicators related to improvement of business climate, including the quality of port infrastructure, number of days for enforcement of contracts, and activities that improve logistics performance are essential drivers of FDIs. The latter are mainly trade-related costs within the domestic economy.

In addition, reducing international trade costs including transport costs, deepening internet use and reducing average import tariffs are equally important. Thus, Kenya should enhance efforts in implementing targeted trade facilitation measures with a view to deepening integration in global trade and production networks, hence foreign investments.

In light of the findings, the study recommends the distinction of market and efficiency seeking FDIs and targeted improvements of business climate and the activities that reduce trade costs at domestic and international levels.

#### References

- Abala, D. (2014), "Foreign Direct Investment and Economic Growth: An Empirical Analysis of Kenyan Data". *DBA Africa Management Review*. Vol. 4, No. 1: 62-83.
- ADB and UNESCAP (2013), Designing and Implementing Trade Facilitation in ASIA and the Pacific. 2013 Update.
- Boyd, J. H. and Smith, B. D. (1992), "Intermediation and the Equilibrium Allocation of Investment Capital: Implications for Economic Development". *Journal of Monetary Economics*, 30: 409-432.
- Brainard S. L. (1993), An Empirical Assessment of the Proximity-Concentration Tradeoff between Multinational Sales and Trade. NBER Working Paper No. 4580.
- Brecher, R. (1983), "Second-Best Policy for International Trade and Investment". *Journal of International Economics*, Vol. 14: 313-320.
- Brecher, R. A. and Diaz Alejandro C. F. (1977), "Tariffs, Foreign Capital and Immiserizing Growth". *Journal of International Economics*, Vol. 7: 317-322.
- Carr, D. L., Markusen, J. R. and Maskus, K. E. (2001), "Estimating the Knowldege-Capital Model of the Multinational Enterprises'. *Journal of Common Market Studies*, Vol. 50, No. 2: 300-314.
- Casson, M. (1990), "The Theory of Foreign Direct Investment", In P. Buckley (ed.), *International Investment*, Aldershot: Edward Elgar Publishing.
- Chimilila C., Sabuni C. and Benjamin A. (2014), "Trade Facilitation in EAC Customs Union: Its Achievement and Implementation in Tanzania". *Journal of Economics and Sustainable Development* Vol.5, No. 25: 2014.
- Collier P., and Gunning, J.N., (1999), "Why has Africa grown slowly?" *Journal of Economic Perspectives*, Volume 13, Number 3: 3–22.
- Dikova, D. and Witteloostuijin, A.V. (2007), "Foreign Direct Investment Mode Choice: Entry and Establishment Modes in Transition Economies". *Journal of International Business Studies*, Issue 38(6): 1013-1033.
- Dollar, D., Hallward-Driemeier M. and Mengistae T. (2004), "Investment Climate and International Integration", World Bank Policy Research Working Paper 3323.
- Duval, Y. and Utoktham C. (2014), Impact of Trade Facilitation on Foreign Direct Investment, ESCAP Trade and Investment Division, TID Working Paper No. 04/14, 18 August 2014. Bangkok. Available at http://www.unescap.org/publications.
- Eiffert, B. and Ramachandran V. (2004), Competitiveness and Private Sector Development in Africa: Cross Country Evidence from the World Bank's Investment Climate Data. Asia-Africa Trade and Investment Conference (AATIC), Tokyo, 1-2 November 2004.

- Engman, M. (2005), The Economic Impact of Trade Facilitation. OECD Trade Policy Papers No. 21, OECD.
- Evdokia M., S. Sorescu, D. Hummels and P. Minor (2013), Trade Facilitation Indicators: The Potential Impact of Trade Facilitation on Developing Countries' Trade. OECD Trade Policy Paper No. 144.
- Franco, C. Rentocchini, F. and Marzetti, G. V. (2008), Why do Firms Invest Abroad? An Analysis of the Motives Underlying Foreign Direct Investments. www.etsg. org/ETSG2008/Papers/Franco.pdf.
- Gain, W. (2015), Measuring the Impact of Trade Facilitation Reform. World Bank Group-Trade and Competitiveness. Washington DC, http://www19.iadb.org/intal/intalcdi/PE/2014/14927a13.pdf.
- Government of Kenya (2015), *Foreign Investment Survey 2015*. Published by Nairobi: Kenya National Bureau of Statistics, KenInvest and Central Bank of Kenya.
- Grainger, A. (2007), "Customs and Trade Facilitation: From Concepts to Implementation". World Customs Journal, Volume 2, Number 1.
- Helpman, E., Melitz M. and Yeaple S. R. (2004), "Export versus FDI with Heterogeneous Firms". *American Economic Review*, Vol. 94, No.1.
- Jenniges, D. (2014), Three Essays on Cross-border Mergers Acquisitions. Thesis and Dissertation Economics Paper 15. http://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1014&context=economics\_etds. Assessed on 20th April, 2016.
- Kenya Association of Manufacturers–KAM (2008), Trade Facilitation Systems in Kenya. Report prepared by the Kenya Association of Manufacturers. Nairobi.
- Kenaro, O. E. (2006), Determinants of Foreign Direct Investment in Kenya. Thesis, African Institute of Economic Development and Planning (IDEP), United Nations.
- Ledyaeva, S. and M. Linden (2006), Testing for Foreign Direct Investment Gravity Model for Russian Regions. Department of Business and Economics, University of Joensuu.
- Lim, E. G. (2001), Determinants of, and the Relation between Foreign Direct Investment and Growth. A Summary of the Recent Literature. IMF Working paper WP/01/175 Washington D.C
- Markusen J. R. and Venables A. J. (2005), "A Multi-Country Approach to Factor-Proportions Trade and Trade Costs", NBER Working Paper No. 11051.
- Mátyás, L. (1997), "Proper Econometric Specification of the Gravity Model". *The World Economy*, Vol. 20, No. 3: 363-368.
- Miroudot, S. (2010), "The International Integration of Industrial Processes." Presentation at Globalization of Industrial Production Chains and

- Measurement of Trade in Value Added: Measuring International Trade in Value Added for a Clearer View of Globalization, October. Paris. World Trade Organization and Senate Finance Commission.
- Mwega, F.M. and Ngugi, R.W. (2007), Foreign Direct Investment in Kenya. In Ajayi, S.I. (eds) *Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential*. Nairobi: African Economic Research Consortium.
- Mwega, F.M. (2009), *Global Financial Crisis Discussion Series Paper 7: Kenya*. London: Overseas Development Institute.
- Nayak Dinkar and Rahul. N. Choudhury (2014), A Selective Review of Foreign Direct Investment Theories. ARTNeT Working Paper Series No. 143, March 2014, Bangkok, ESCAP.
- Njoroge S. N. Gregory and S. Maurice (2015), "Determinants of Foreign Direct Investment Growth: Kenya's Manufacturing Sector". *Journal of Economics and Sustainable Development*. Vol. 6, No. 17.
- Njoroge, S. and Okech, T. (2011), "An Assessment of the Factors Influencing Foreign Direct Investment Inflows in Kenya's Horticultural Industry". *International Journal of Business and Social Science*, Vol. 2, No. 5.
- OECD (2001), Business Benefits of Trade Facilitation, Working Party of the Trade Committee, TD/TC/WP(2001)21/FINAL.
- OECD (2005a), The Economic Impact of Trade Facilitation. OECD Trade Directorate, Paris: (TD/TC/WP/(2006)21/FINAL).
- OECD (2005b), A Policy Framework for Investment: Trade Policy. Paper Presented during the OECD Conference Investment for Development: Making it Happen 25-27 October 2005, Rio de Janeiro, Brazil.
- OECD (2013), Trade Facilitation Indicators: The Potential Impact of Trade Facilitation on Developing Countries. OECD Trade Policy Paper No. 144.
- OECD (2015), Connecting to Value Chains: The Role of Trade Costs and Trade Facilitation, Chapter 6: https://www.wto.org/english/res\_e/booksp\_e/aid4trade15\_chap6\_e.pdf.
- Olofsdotter, Karin and Persson M. (2013), Trade Facilitation and Foreign Direct Investment. Unpublished report.
- Persson, M. (2012), "From Trade Preferences to Trade Facilitation: Taking Stock of the Issues", *Economics: The Open-Access, Open-Assessment E-Journal*, Vol. 6, No. 2012-17: 1-33.
- Portugal-Perez, A. and Wilson, J. (2010), Export Performance and Trade Facilitation Reform Hard and Soft Infrastructure. Policy Research Working Paper 5261. World Bank.
- Santos, C. and Tenreyro, S. (2006), "The Log of Gravity". *Review of Economics and Statistics*, Vol. 88, No. 4: 641-658.
- Singh, H. and Jun, K. W. (1995), "Some New Evidence on Determinants of Foreign

- Direct Investment in Developing Countries". World Bank, International Economics Department International Finance Division, November 1995, World Bank Policy Research Working Paper No. 1531.
- Swenson, D. L. (2004), "Foreign Investment and the Mediation of Trade Flows", *Review of International Economics*, Vol. 12, No. 4: 609-629.
- Tanaka, K. (2006), "The Relative Importance of Horizontal versus Vertical FDI: Evidence from Japanese and US Multinational Firms", University of Hawaii Press.
- Tinbergen, J. (1962), The World Economy: Suggestions for an International Economic Policy. New York.
- UNCTAD (2012), World Investment Report 2012: Towards a New Generation of Investment Policies. United Nations Conference for Trade and Development.
- UNCTAD (2015), Boosting Investment in Productive Capacities for Trade: A Call to Action. Policy Brief No. 43. UNCTAD.
- UNCTAD FDI/MNEs database, based on data from the National Bureau of Statistics.
- UNECA (2013), Trade Facilitation from an African Perspective. Addis Ababa: UNECA.
- World Bank (2013), Handbook of Statistics. Washington DC.
- World Bank (2015), Doing Business 2015: Going beyond Efficiency. Regional Profile 2015 the East African Community (EAC). Washington DC: World Bank.
- WTO (2015), Speeding up Trade: Benefits and Challenges of Implementing the WTO Trade Facilitation Agreement. World Trade Report 2015. Geneva: World Trade Organization.
- Zaki, C. (2014), "An Empirical Assessment of the Trade Facilitation Initiative: Econometric Evidence and Global Economic Effects". *World Trade Review*, Vol. 13, No. 01: 103-130.

Appendix

Appendix Table 1: FDI flows into Kenya from leading source countries 2001–2012 (US\$ millions)

Reporting economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1. Belgium	-	-	1	-	_	-	-	-	215	123	21	-331
2. China	-	-	1	8	2	-	6	23	28	101	89	79
3. Denmark	_	-	-	-	2	1	-	-	-	-	-	-
4. France	30	11	2	9	5	9	909	-192	13	- 1	17	45
5. Germany	-	- 1	4	-	11	-3	3	25	- 18	-	-	-
6. Italy	-	-	-	-	_	-	-	4	- 5	1	- 2	1
7. Japan	_	-	-	-	_	-	- 3	-	0	-	1	3
8. Luxembourg	-	-	-	-129	10	-	-	-	4	8	8	6
9. Mauritius	_	-	-	-	_	-	-	-	-	-	1	-
10. Switzerland	3	-	- 1	6	10	16	15	4	8 -	-168	39	16
11. United Kingdom	60	48	95	86	133	114	194	123	179	301	101	6-
12. United States	1	1	7	-7	40	-109	2	7	43	-	-40	1

Source: UNCTAD FDI/TNC database

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