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The Influence of Customs Valuation Procedures on Trade Facilitation within Cargo Sheds at Jomo Kenyatta International Airport, Kenya

Judy Cheptoo Kilele[1*], Dr. Doris Gitonga, (PHD)[2] , Dr. John Tarus, (PHD)[3]
[1,2]Tax Administration, Kenya School of Revenue Administration
[3]School of Business and Economics, Moi University
Corresponding Author Email: judycheptoo97@gmail.com

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Abstract

KRA has been missing targets before the 2020/2021 Financial year, which saw KRA surpass the target after 14 years. Customs administrations find themselves increasingly under pressure from national governments and international organizations to facilitate the clearance of legitimate passengers and cargo. Therefore, this study sought to determine the influence of customs valuation procedures on trade facilitation within cargo sheds at Jomo Kenyatta International Airport, Kenya. The theory that guided this study was the new trade Theory and trade facilitation theory. The study adopts an explanatory research design. A population of 366 customs officers and clearing agents was used, out of which a sample of 191 respondents was selected by using the Yamani formula. The study used a primary data method of collection method by using structured questionnaires. Data was analyzed using descriptive statistics and inferential statistics by use of SPSS and presented in tables and pie charts. Customs valuation was found to positively and significantly influence Customs Revenue Collection (β_3=0.103, p=0.000<0.05).The policy makers are therefore recommended to use the study findings to prioritize the formulation of comprehensive digital trade facilitation policies that mandate the automation of customs procedures, adoption of electronic documentation, and inter-agency system integration. This study, therefore, suggests that another study could be carried out to investigate the influence of customs procedures and trade facilitation among organizations dealing with customs operations in Kenya.

Keywords: *Customs Valuation procedures, trade procedures, Trade Facilitation, Jomo Kenyatta International Airport*

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1. Introduction

The term 'trade facilitation' has emerged as a focus of studies aimed at reducing transaction costs imposed through international trade. The World Trade Organization (WTO) defines trade facilitation as "the simplification and harmonization of international trade procedures covering the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade" (OECD, 2005). The simplification and harmonization of customs procedures is therefore important in contributing to the increase in the volume of international trade, the development of economies, and the

prosperity of the international trading community. It is expected that improvement in customs administration in relation to systems and processes can also lead to a decrease in the time and the cost of international trade transactions (Wunwimon, 2010). Thus, the success of the trade facilitation agenda is heavily reliant on the ability and efficiency of customs administrations to achieve an appropriate balance between facilitation and regulatory control (Wunwimon, 2010).

The need for trade facilitation has arisen from the growth in volumes of trade, declining levels of tariffs following trade liberalization after the conclusion of the Uruguay Round, as well as from the increase and availability of modern technology. International trade at the border has particularly been associated with excessive documentation, lack of transparency in declaration, limited use of modern customs techniques, for example scanners, in adequate transit regimes, lack of rapid legal redress, excessive release and clearance times, lack of co-ordination and cooperation between customs and other inspecting agencies, and inadequate procedures especially the lack of audit-based controls and risk assessment techniques. Combined, these factors lead to losses in business and to high Trade Transaction Costs (TTCs). Generally, TTCs account for some 2-15 per cent of traded goods 'value (OECD, 2003).

The most important issue in Customs Law is the calculation and levying of customs duty on imported goods. The exact amount of customs duty payable depends upon, among other factors, the classification of imported goods, valuation methods, rules of origin, and duty rates. Since the Tokyo Round of the General Agreement on Tariffs and Trade negotiations in 1979, GATT members have agreed to adopt "transaction value" as the primary basis for valuation of imported goods. This agreement was eventually absorbed into Annex 1A of the 1994 WTO Agreement, which is more commonly known as the WTO Customs Valuation Agreement. The WTO also takes responsibility for minimizing trade barriers. Therefore, several agreements have been agreed upon, like the Valuation Agreement. To minimize the differences between the members of the WTO, each WTO member agreed to implement the rules in the Valuation Agreement in their local legislation.

According to Shirsavar and Shirinpour (2017), a valuation database is a tool for assessing risks. It is normally put in place by Customs to enhance its services to counter the incidences of Customs valuation fraud. Customs valuation risks often lead to low revenue performance. According to the International Chamber of Commerce (2015), developed countries may not suffer much from incidents of as developing countries because the latter are most frequently faced with limited technical capacity to put in place robust mechanisms and systems to detect and deal with valuation fraud. It is often argued that the existence of a valuation database will enhance trade facilitation to a great, extent especially by speeding up the valuation process.

Jomo Kenyatta International Airport (IATA: NBO, ICAO: HKJK) is an international airport serving Nairobi, the capital and largest city of Kenya. The other three important international airports in Kenya include Kisumu International Airport, Moi International Airport, and Eldoret International Airport. Located in the Embakasi suburb, 18 kilometres (11 mi) southeast of Nairobi's central business district, the airport has scheduled flights to destinations in over 50 countries.[3] Originally named Embakasi Airport, the airport's name was changed in 1978 to honour Jomo Kenyatta, Kenya's first president and Prime Minister. The airport served over 7 million passengers in 2016,[4] making it the seventh busiest airport in passenger traffic on the continent.

1.1 Problem Statement

According to the World Bank's Logistics Performance Index (LPI) 2022, Kenya ranked 68th out of 139 countries, with a customs efficiency score of 2.6 out of 5, indicating the need for improvements in clearance processes. Additionally, a 2020 UNCTAD report highlights that excessive customs delays contribute to over 40% of trade transaction costs in developing countries. At JKIA, data from the Kenya Revenue Authority (KRA) 2021 report shows that cargo clearance takes an average of 48-72 hours, compared to the 24-hour international best practice recommended by the World Customs Organization (WCO). This inefficiency leads to higher storage costs, demurrage charges, and disrupted supply chains, affecting both importers and exporters.

Despite efforts such as the introduction of the Integrated Customs Management System (iCMS) and the Single Window System (KenTrade), traders continue to face bureaucratic hurdles, redundant verification procedures, and inconsistencies in duty assessments. Empirical studies, such as Mohammad (2017) and UNCTAD (2020), confirm that streamlined customs procedures can reduce trade costs by up to 15%, yet practical implementation gaps remain at JKIA. However, there are a few studies that have been conducted in relation to customs procedures and trade facilitation in different corners of the world, including Africa. Despite these gaps, there is limited research on Customs Valuation procedures and trade facilitation at Jomo Kenyatta International Airport (JKIA).

2. Literature Review

2.1 Theoretical Review

2.1.1 Trade Facilitation Theory

Trade Facilitation Theory emerged in the 1990s as international trade volumes increased, and it became evident that non-tariff barriers such as customs delays and administrative bottlenecks, were significantly impeding trade. The theory gained prominence through the work of institutions like the World Trade Organization (WTO), World Customs Organization (WCO), and OECD, which promoted trade facilitation as a key strategy to boost global trade efficiency and economic development.

The WTO's Trade Facilitation Agreement (TFA), adopted in 2013 and enforced in 2017, marked a significant institutional backing of this theory. It emphasized the importance of simplifying, modernizing, and harmonizing export and import processes, especially customs procedures.

Trade Facilitation Theory emphasizes the simplification, harmonization, and modernization of trade procedures to reduce transaction costs and delays associated with the movement, release, and clearance of goods (Wilson, Mann & Otsuki, 2003). The theory advocates efficient customs procedures, including accurate declaration, timely verification, and standardized valuation processes, as key drivers of improved trade flows.

In the context of this study, customs declaration, verification, and valuation procedures at JKIA are examined to understand how they influence the efficiency of trade facilitation within cargo sheds. By applying this theory, the study seeks to explore whether the existing customs procedures facilitate or hinder the clearance of goods, affecting the overall trade performance and competitiveness of Kenya.

2.1.2 New trade theory

New Trade Theory (NTT), developed primarily by economists Paul Krugman in the late 20th century, provides a framework for understanding international trade patterns that traditional trade theories, like comparative advantage, could not fully explain. The theory is an explanation of the actual pattern of trade between similarly endowed countries in respect of factor endowment, tastes, technology, etc., as against the classical theory of trade between differently endowed countries. It takes the aspects of monopolistic competition of product differentiation or distinction, large-scale production, decreasing costs, or increasing returns. The theory has many lessons for the developing economies like India, for which strategic trade policy is a good policy option, for bringing out the variety of trade potentials of the country. NTT incorporates economies of scale and network effects, emphasizing the importance of these factors in determining trade flows and industrial organization.

It describes the Internal Economies of Scale, that is, the Cost advantages that a firm experiences as it increases production. Larger firms can produce at lower average costs, giving them a competitive edge. External economies of scale, on the other hand, outline Cost advantages that occur when an industry's overall output increases. For example, a larger industry can support specialized suppliers and services that benefit all firms within the industry. It also denotes that Consumers prefer a variety of goods and services. New Trade Theory suggests that international trade allows for a greater variety of goods and services than would be available in a closed economy.

The new trade theory has made a fundamental contribution in providing a tractable framework for analyzing the large volume of interindustry trade. Deardorff (1984), for example, stresses that the growth of interindustry trade is an empirical phenomenon not well explained by older, traditional theories. By focusing on economies of scale, network effects, and product differentiation, this theory highlights the critical role that efficient customs procedures play in enhancing trade performance. Policymakers and stakeholders must prioritize customs reforms to unlock Kenya's full trade potential and foster sustainable economic development.

2.2 Empirical Review

2.2.1 Customs Valuation on Trade Facilitation

According to Sheri and Brian (2010), Customs valuation methods, particularly those outlined in the WTO Customs Valuation Agreement, enhance the transparency and predictability of trade. By standardizing how the value of goods is determined for customs purposes, this agreement reduces the risk of arbitrary or inconsistent valuation practices. This predictability is crucial for traders, as it allows them to estimate costs accurately and plan logistics more effectively. They also noted that Effective customs valuation procedures can significantly reduce trade costs. When the valuation process is clear and standardized, it minimizes the risk of disputes and delays at borders, which are common sources of additional costs. Accurate valuation ensures that the correct duties and taxes are applied, avoiding overpayments and underpayments that can result in penalties or fines. This efficiency in the valuation process can lead to overall cost savings for businesses engaged in international trade.

According to Shirsavar and Shirinpour (2017), a valuation database is a tool for assessing risks. It is normally put in place by Customs to enhance its services to counter the incidences of Customs valuation fraud. Customs valuation risks often lead to low revenue performance.

According to the International Chamber of Commerce (2015), developed countries may not suffer much from incidents of as developing countries because the latter are most frequently faced with limited technical capacity to put in place robust mechanisms and systems to detect and deal with valuation fraud.

According to EY Global (2021), the Kenya Tax Appeal Tribunal (Tribunal or TAT) held, in a judgment delivered on 29 October 2021, that the primary method of customs valuation is the Transaction Value Method (TVM). Alternative methods are to be applied upon failure of the TVM, and the alternative methods should be applied sequentially. In Tax Appeal No. 340 of 2020, the Appellant versus the Commissioner of Customs and Border Control (the Respondent), the Tribunal agreed with the Appellant's assertion that the TVM, which is the primary method of valuation, must be applied first and that the alternative methods of customs valuation can only be applied if the primary method has failed. The Tribunal further noted that the Appellant's application for review was creditable by the facts and evidence provided by the Appellant in support of the appeal. The detailed WTO rules on the valuation of goods for customs purposes are contained in the Agreement on Implementation of Article VII of GATT 1994 (the Agreement on Customs Valuation).

2.2.2 Trade Facilitation

European Commission General Affairs Council (2002) defines trade facilitation as simplifying all requirements and procedures related to imports and exports. This is regarding customs processes, import licensing, customs valuation, transit rules, and pre-shipment inspection, drawing on the highest international standards and in conformity with the provisions of the WTO, including those elaborated under the Doha Development Agenda. The Doha Development Agenda (WTO, 2001) defines trade facilitation as measures for expediting the movement, release, and clearance of goods, including goods in transit. (Grainger, 2016) defines it as processes and controls for moving products across domestic boundaries and how this can be enhanced to decrease related cost burdens and maximize effectiveness while safeguarding legitimate regulatory goals.

The World Bank (2014) observes that complicated border procedures and bureaucratic bottlenecks impede economic growth considerably by reducing access to international markets. Disproportionate delays in exporting and importing activities also lower the volume of trade. The costlier and more time-consuming it is to export or import, the harder it is for homegrown businesses to reach global markets. Inefficient customs procedures, inadequate infrastructure, and unreliable logistics services add up to the time it takes to trade, thereby pushing up costs such as storage and inspection costs. In some African countries, losses of revenue accruing from inefficient border procedures are estimated to exceed 5 per cent of their GDP.

According to WTO (2004), the July package, trade facilitation is the expedition of the movement, release, and clearance of goods, including goods in transit. The negotiations mainly concern themselves with the border issues of trade facilitation. The modalities for negotiating the trade facilitation agreement provide for Special and Differential treatment as well as for technical assistance and support to the developing and least developed countries to enable them to implement the resultant agreement commitments, particularly those related to infrastructural development.

2.3 Conceptual Framework

The conceptual framework indicates the link among the various variables (dependent and independent variables). The dependent variable is trade facilitation performance, while the independent variable is Customs Valuation**.** The conceptual framework gives a depiction of how the variables are related to each other. As shown in Figure 1.

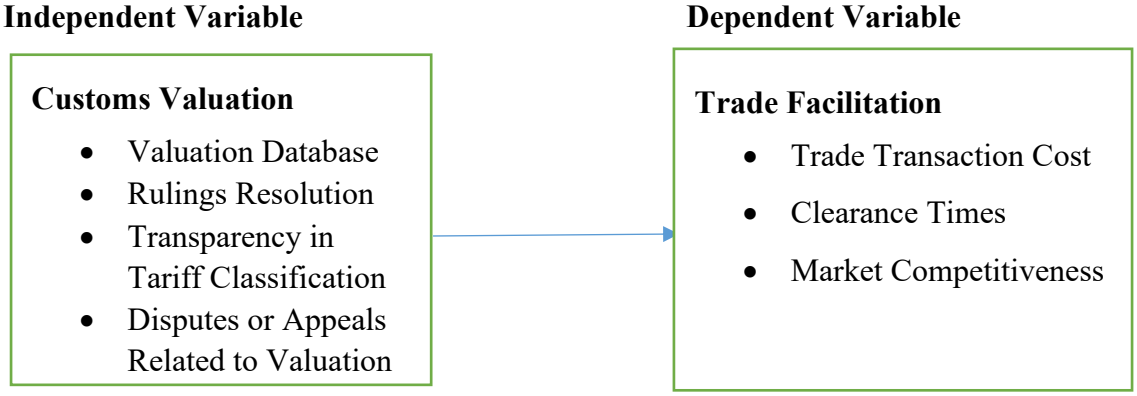

Figure 1: Conceptual Framework

3. Methodology

A research design is "a plan or blueprint of how you intend to undertake the research" (Mouton, 1996:165). An explanatory research design was adopted in this research, whereby the influence of Customs procedures on trade facilitation within cargo sheds at JKIA was investigated. Explanatory research design is a methodological approach used to investigate the cause-and-effect relationships between variables. Burt, Barber, and Rigby (2012) describe the target population as the set of all people relevant to a particular study. The target population comprises staff from KRA Customs and Border Control Departments and Clearing Agents Operating at Cargo Sheds at Jomo Kenyatta International Airport (JKIA), Nairobi. According to Musyoka (2019), The Kenya Airports Authority- KAA (2017), there were 7 main) cargo sheds operating in JKIA.

In addition, the KRA Human Resource Manual (2022) reported that there were 86 employees working at customs and estimated 280 clearing Agents operating fully at JKIA. The instruments that were completed and taken as valid for data analysis were obtained from 189 respondents, which translated to a response rate of 98%. On the other hand, two (2) questionnaires (accounting for 2%) were not considered in this study since they were not filled as per the expectations of the researcher. Of all the 189 questionnaires received, 119 (61.3%) of them were obtained from the staff working in the cargo sheds, while 70 (36.7%) of them were filled by the staff working in the customs department at JKIA, as shown in Table 1.

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Table 1: Response Rate

Population category	Responded		Not Responded		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Customs officers	70	36.7	0	0	70	36.7
Clearing Agents	119	61.3	2	2	121	63.3
Total	**189**	**98**	**2**	**2**	**191**	**100.0**

4. Results and Discussion

4.1 Descriptive statistics

4.1.1 Descriptive Statistics for Verification of Goods

Table 2 shows the item. Most respondents affirmed that Kenya Customs has invested in a technologically sound system for customs valuation ($\bar{x}$=3.81). More specifically, the availability of valuation database has improved customs valuation ($\bar{x}$=4.62); valuation ruling is obtained easily from the database ($\bar{x}$=4.06); valuation dispute resolution is timely ($\bar{x}$=4.59); Customs valuation process is a significant feature of contemporary customs systems ($\bar{x}$=3.36); It can be deduced from the foregoing findings that that majority of the respondents agreed with the statements that suggest the influence of Custom's valuation procedures on trade facilitation within cargo sheds at JKIA.

Table 2: Customs Valuation Procedures

	N	Mean	Std. Deviation
Kenya Customs has invested in a technologically sound system for Customs Valuation.	189	3.81	.932
The availability of a valuation database has improved customs valuation.		4.62	.485
Valuation rulings are obtained easily from the database.		4.06	1.226
Valuation dispute resolution is timely.		4.59	.597
The customs valuation process is a significant feature of contemporary Customs systems.		3.36	1.424
Mean		4.088	

4.1.2 Descriptive statistics for Trade Facilitation

Table 3 showed that the survey statement A majority of respondents highly affirmed that the customs procedures at JKIA facilitate quick clearance of cargo ($\bar{x}$=4.36); More specifically, a majority highly agreed that the cost of clearing cargo at JKIA is reasonable and predictable ($\bar{x}$=4.48); Delays in customs procedures negatively impacts business operations ($\bar{x}$=4.06); the customs clearance process is predictable and transparent ($\bar{x}$=4.59); Customs procedures at JKIA supports international trade competitiveness ($\bar{x}$=2.98).

Table 3: Descriptive statistics: Trade Facilitation

	N	Mean	Std. Deviation
The customs procedures at JKIA facilitate quick clearance of cargo.	189	4.36	.933
The cost of clearing cargo at JKIA is reasonable and predictable.		4.48	.794
Delays in customs procedures negatively impact business operations.		4.06	1.226
The customs clearance process is predictable and transparent.		4.59	.597
Customs procedures at JKIA support international trade competitiveness.		2.98	.913
Mean		4.094	

4.2 Correlation Analysis

The study conducted a Karl Pearson product-moment correlation analysis, which explains the relationship between customs valuation and trade facilitation. While there was a positive correlation between trade facilitation and customs valuation, with a correlation rate of 0.166 ($p<0.05$).

Table 4: Correlation Statistics

	Trade Facilitation	Customs Valuation
Trade Facilitation	1	0.166**
Customs valuation	0.166**	1
Sig.	0.024	

**. Correlation is significant at the 0.05 level (2-tailed).

4.3 Regression Analysis

Table 6.6.5 showed that customs valuation caused a variation of (R^2=0.027 and adjusted R^2 =0.024) on trade facilitation.

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Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.166[a]	.0.027	.024	.30717

a. Predictors: (Constant), Customs valuation _mean

Table 6 shows that there was an F statistic of 272.5 and a p-value of 0.000<0.05, which indicates that the model was significant in explaining the variance caused by Customs valuation.

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.980	1	23.980	272.5	0.000
	Residual	16.642	187	0.088		
	Total	40.622	188			

a. Dependent Variable: Trade Facilitation
b. Predictors: (Constant), Customs valuation

Table 7 showed that a unit change in Customs valuation caused a 0.103 increase in trade facilitation. The study found that Customs valuation had a positive and significant effect on trade facilitation, β =0.103, p-value =0.000<0.05. Consequently, the null hypothesis was rejected.

Table 7: Regression Coefficient analysis

Model		Unstandardized Coefficients β	Std. Error	Standardized Coefficients β	t	Sig
1	(Constant)	0.580	0.189		3.069	0.000
	Customs valuation	0.619	0.145	0.103	4.269	0.000

a. Dependent Variable: Trade facilitation

4.4 Discussion of the Findings

Correlation analysis, a strong positive and significant correlation to Trade Facilitation was established by Customs Valuation (r=.166, p=0.024). This implies that the change in Customs Valuation will influence Trade Facilitation by 0.166. As such, to improve Trade Facilitation at JKIA, Customs Valuation ought to be enhanced. From the findings of multiple regression analysis, Customs Valuation was found to positively and significantly influence Trade

Facilitation (β_3=0.103, p=0.000<0.05). This is interpreted to mean that keeping all other independent variables constant, a unit change in customs valuation will lead to a 0.103 increase in Trade Facilitation at JKIA. The study was in agreement with Seble Getnet (2014), the valuation agreement forms the basis for the customs values declared to customs administrations. The Agreement establishes a customs valuation system, which bases the customs value primarily on the transaction value of imported goods, i.e., the price paid or payable for the goods when sold for export to the country of importation, with certain adjustments.

5. Conclusion

The study sought to determine the effect of Customs Valuation on trade facilitation within cargo sheds at JKIA, Kenya. Based on the findings, the study concludes that there is a moderate effect of Customs valuation on trade facilitation at JKIA. Valuation processes remain a source of disputes and inefficiencies, mainly due to inadequate automation and inconsistent application of the WTO's Valuation Agreement standards. This hinders predictability and transparency in duty assessment.

6. Recommendations

The policy makers are therefore recommended to use the study findings to prioritize the formulation of comprehensive digital trade facilitation policies that mandate the automation of customs procedures, adoption of electronic documentation, and inter-agency system integration. This study, therefore, suggests that another study could be carried out to investigate the influence of customs procedures and trade facilitation among organizations dealing with customs operations in Kenya.

References

African Development Bank. (2019). *Trade facilitation in Africa: Challenges and opportunities*. AfDB.

Arvis, J.-F., Duval, Y., Shepherd, B., & Utoktham, C. (2018). *Trade costs in the developing world: 1996–2010*. World Bank. https://doi.org/10.1596/1813-9450-6309

Behar, A., & Manners, P. (2008). Distance to markets and international trade. *Review of International Economics, 16*(5), 761–775.

Creswell, J. W., & Plano Clark, V. L. (2006). *Designing and conducting mixed methods research*. SAGE Publications.

Deng, M., & Zhang, A. (2020). Effect of transaction rules on enterprise transaction costs based on Williamson's transaction cost theory. *Sustainability, 12*(3), 1129. https://doi.org/10.3390/su12031129

Djankov, S., Freund, C., & Pham, C. S. (2010). Trading on time. *The Review of Economics and Statistics, 92*(1), 166–173.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage Publications.

Finger, M., & Schuler, P. (2000). Implementation of Uruguay Round commitments: The development challenge. *RIS Digest*.

Grainger, A. (2007). Customs and trade facilitation: From concepts to implementation. *World Customs Journal, 1*(1), 17–30.

Grainger, A. (2008). Customs and trade facilitation: From concepts to implementation. *World Customs Journal, 2*(1), 17–30.

John, S., Catherine, L., & Tsunehiro, O. (2003). *Trade facilitation and economic development*. The World Bank.

Kenya Revenue Authority. (2021). *Annual customs modernization report*. KRA.

Kesino, D. (2012). The impact of electronic customs procedures on trade efficiency in Kenya (Unpublished master's thesis). University of Nairobi.

Kothari, C. R. (2004). *Research methodology: Methods and techniques* (2nd ed.). New Age International Publishers.

Lesser, C., & Moïsé-Leeman, E. (2009). Informal cross-border trade and trade facilitation reform in sub-Saharan Africa. *OECD Trade Policy Working Paper*.

Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica, 71*(6), 1695–1725.

Mohammad, A. (2017). Delays in customs clearance procedures in Kenya: Implications for trade facilitation. *Journal of African Trade, 4*(1–2), 45–58.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods: Quantitative and qualitative approaches*. Acts Press.

UNCTAD. (2020). *Trade and development report 2020: From global pandemic to prosperity for all*. United Nations.

World Bank. (2005). *Customs modernization handbook*. The World Bank.

World Bank. (2014). *Doing business 2015: Going beyond efficiency*. World Bank Group.

World Customs Organization (WCO) News. (2019). Indian Customs assists Kenya in developing customs valuation and risk management systems.