ATTITUDES, KNOWLEDGE, AND PRACTICES OF CUSTOMS ADMINISTRATORS ON TRADE FACILITATION

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Abstract. In light of renewed interests to boost African trade through continental integration, the authors identified trade facilitation as an integral component of complimenting the integration processes. This is especially relevant in the southern region where the majority of borders are characterised by complex and duplicated processes due to the lack of 'one-stop border posts'. This study explores the attitudes, knowledge and practices of customs administrators on trade facilitation in Zimbabwe. Based on questionnaires, face-to-face interviews, and secondary data collected from the Zimbabwe Revenue Authority (ZIMRA), the results indicated that 'trade facilitation' was not included in strategic policies of ZIMRA. In terms of risk factors, low staff remuneration was identified as the major issue. Many cross-border authorities at the border (overstaffed) and outdated infrastructure were major constraints in the flow of cargo and people. The study recommends that ZIMRA should provide training on the 'single window system' in order to improve on coordinated border management. Secondly, ZIMRA should review staff remuneration frequently and synchronise it with regional standards. Thirdly, there should be alignment and coordination of the trade-related issues within various government ministries. Fourthly, customs authorities should establish stand-alone trade facilitation units at ports of entry.

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1. Introduction

The renewed interests in reviving intra-African trade, which have manifested in the recently signed African Continental Free Trade Area (AfCFTA) agreement, require the minimisation of delays at border control points of African countries (Pasara and Dunga, 2019). Delays at border control points have been the bane of the efficient movement of goods in sub-Saharan African countries, with Zimbabwe being no exception to this rule. The delays have been attributed to bureaucracy on the part of customs officials as well as inadequate infrastructure and technical challenges at these ports of entry and exit. However, even when major upgrades are completed to the IT systems, the delays persist (Tavengerwei, 2018). Developing border control points in order to improve the flow of cargo and people is often a costly exercise. For example, upgrading and modernising of the Beitbridge border into a one-stop border post will cost Zimbabwe approximately $241 million. The Zimbabwe government asserts that the project to transform the Beitbridge border post is part of the North-South Corridor and it has been prioritised in the SADC Programme for Infrastructure Development of Africa (PIDA) Acceleration Programme for Regional Corridor Development (Muleya, 2018). Other means that have prescribed to improve trade facilitation are the adoption of the one-stop border post (OSBP) system and the adoption of the 'single window system'. Single windows have the advantage that they allow traders to electronically interface, submit or distribute their customs documents (such as permits, invoices, declarations and certificates of origin) in an accelerated manner (Morini *et al*., 2017).

Globally, there have been emerging trends to customs administration in international supply chains (Dan and Carlotta, 2019). In 2005, the Framework of Standards to Secure and Facilitate Global Trade (SAFE) was adopted by World Customs Organisation members. The major objectives of the SAFE framework are to prevent situations such as terrorism and human trafficking, safeguard revenue collection as well as to promote trade facilitation. With the framework came a modern approach to the end-to-end supply chain management of goods moving across borders. This framework was updated again in 2018 and important additions were on Authorized Economic Operators (AEO), Coordinated Border Management, Trade Continuity and Resumption, Customs to Other Government and Inter-Government Agencies, and Pre-loading Advance Cargo Information (ACI) for air cargo (World Customs Organisation, 2018).

As supply chains become more and more globalised due to renewed interests in economic integration, they rely more and more on effective trade facilitation practices by customs administrations (Stank *et al.,* 2012; Tavengerwei, 2018; Zhu *et al*., 2018)). The 2018 Logistics Performance Index (LPI) by the World Bank indicated that Zimbabwe's overall ranking was 152 out of 160 countries. South Africa has an LPI ranking of 33, Cote d'Ivoire 50, Rwanda 57 and Malawi and Zambia are at 97 and 111, respectively. Zimbabwe's ranking in customs efficiency was 146 out of 160 countries. The LPI is a benchmarking tool that measures the national performance of 160 countries in the area of trade logistics. In order to provide a single aggregate measure of performance in logistics, the LPI is a survey including logistics operators to determine the logistics 'friendliness' of a country. Other components include efficiency of customs border and clearance; the quality of trade and transport infrastructure; the ease of arranging competitively priced

shipments; the competence and quality of logistics services; the ability to track and trace consignments; and the frequency within which shipments reach consignees within scheduled or expected times (World Bank, 2018). The efficiency of customs or the lack thereof has an impact on logistics performance.

Zimbabwe and Zambia were the first countries in Africa to implement the OSBP. There have been several proposals that the OSPB at, for example, Chirundu border between Zimbabwe and Zambia should be implemented at other borders, although its benefits to trade facilitation have been mainly anecdotal as road transporters and passengers still complain of delays in movement at that border. In fact, according to Tavengerwei (2018), major border posts in Africa's busiest corridors face congestion troubles regardless of whether they are a one-stop border post or a conventional border post. Nevertheless, the governments of South Africa and Zimbabwe have a framework agreement to convert Beitbridge border into a one-stop border post because of the perennial challenge of congestion that is experienced at that border post (Mafurutu, 2015). The borders have become a bottleneck and stumbling block for the efficient movement of goods and people. The delays significantly increase supply chain costs or disrupt the supply chains altogether (International Trade Centre, 2018). The goal of any logistics system is to ensure the right product reaches the right customer at the right price, time and place in the right quantity and condition (Jonsson and Holmström, 2016). While outlining the theory of constraints, Goldratt and Cox (2004) contend that in order to achieve a goal, bottlenecks should be identified because a problem anywhere in the supply chain is ultimately a problem for the entire supply chain.

The task of managing Zimbabwe's ports of entry is the responsibility of the Zimbabwe Revenue Authority (ZIMRA), which has a mandate to collect revenue and enforce controls on behalf of other government departments (Mafurutu, 2015). The latter role serves to safeguard national security, protect the Zimbabwean population from harmful and substandard products, while protecting the integrity of the flora and fauna of the country as well as preserving Zimbabwe's cultural heritage and moral values (Murevererwi, 2015). The role of customs in the supply chain also involves ensuring trade facilitation, which means ensuring that there are little or no administrative delays at the port of entry (Barratt and Baratt, 2011). When delays arise, it may result in a plethora of challenges, which include retaliation by other trading countries as well as additional logistics costs such as demurrage, storage and detention charges that are eventually passed on to the consumer (Hoekman and Shepherd, 2015; Sakyi *et al*., 2017). Additional logistics costs also lead to foreign currency leakages for the country as demurrage and detention charges are paid to foreign-owned transporters such as hauliers, airlines and shipping lines (Moísé and Sorescu, 2013). In severe cases, poor trade facilitation results in total loss of trade as it is diverted elsewhere such as when vehicles use alternative transit routes or businesses relocate their operations or otherwise reconfigure their supply chains. Poor trade facilitation practices are an impediment to trade-led development and consequently economic progression. As supply chains become more and more global, trade facilitation has increased in significance and importance as it is universally considered as an international public good (Minor and Tsigas, 2008; Stank *et al*., 2012; Zhu *et al*., 2018).

Similarly, the World Bank, *Doing Business Report* (Trading across borders) (2019), positions Zimbabwe at an overall ranking of 157 out 190 countries. The *Doing Business Report* gives a quantitative measurement of business regulations in 190 countries. The Trading Across Borders Report, which is part of the set of sub-indices that are compiled to produce the Ease of Doing Business Index, measures the time and cost (with the exclusion of the customs and/or excise tariff) that arise from processes and procedures in the importation or exportation of goods. The Trading Across Borders Report measures documentary compliance, border compliance and domestic transport. Zimbabwe's global ranking on the *Ease of Doing Business* Index is 155 (Doing Business, 2019). Albeit, it is not enough that Zimbabwe is ahead of 32 other countries in the Trading Across Borders ranking because the countries that occupy the bottom 15 places are either prone to or affected by natural disasters, war or other forms of civil strife.

Delays at Zimbabwe's ports of entry are an impediment to the free flow of goods into and out of the country. Poor trade facilitation practices at these ports of entry are well documented; however, little is known as to the cause of these poor trade facilitation practices that are a major supply chain bottle neck. Although there are extensive studies on trade facilitation, customs risk management and coordinated border management, few of those studies have been conducted in Sub-Saharan Africa, let alone Zimbabwe. Scholars such as Mafurutu (2015) and Mureverwi (2015) have written on customs risk management and trade facilitation in Zimbabwe, respectively, yet little is known on the knowledge, attitudes and practices of the customs administration with regard to trade facilitation in Zimbabwe. This exploratory study seeks to bridge this knowledge gap in customs administration and operations within Zimbabwe by applying holistic, systematic risk management methodologies to the operations of Zimbabwe's customs administration with respect to its information technology, legislation, procedures, human resources and organisational arrangements in order to understand its trade facilitation practices.

The study aims to establish the knowledge, attitudes, and practices of customs officials with regard to their role in trade facilitation; secondly, to identify the risk management factors aiding or impeding on trade facilitation in customs administration; and thirdly, to establish the legislative, administrative and technological requirements for improvement of trade facilitation in customs administration. The study is significant because, Zimbabwe, being a landlocked country, relies on its ports of entry to connect it to regional and international markets and products. Moreover, other countries also rely on Zimbabwe as a transit route linking Southern Africa to North and East Africa. The main contribution of the paper is that it revealed the perspective of the officials who are involved in the process of trade facilitation. Majority of studies place their emphasis on the perspective of clients. Officials provide an inside and somehow different view on the same subject as they are aware of some issues which the general populace may not. These include legislative aspects and even internal structures and systems. These become critical in providing balanced policy recommendations.

2. Literature review

Edward Lorenz's butterfly effect of 1960 postulated that weather conditions such as hurricanes could emanate from minute atmospheric changes just like a

butterfly flapping its wings across the globe[1]. Over the years, the theory was borrowed from its traditional meteorological and mathematical fields and applied to other fields to demonstrate that a series of small events can lead to significant multiplier effects. Similarly, this theory is applicable to trade facilitation because the minute differences in the way cargo is handled and processed at borders are causing a big divide among stakeholders as well as across the supply chain system. Without an agreement on the way forward on trade facilitation, progress will be stalled despite significant efforts to integrate Africa into a single economic community (Tavengerwa, 2018; Pasara and Dunga, 2019). This is because the existing regional economic communities, SADC in this case, are already operating under free trade instruments and yet no significant differences in the speeding up process of moving cargo are being felt by traders (Sakyi *et al.*, 2015; Johns *et al.*, 2018). This is true irrespective of whether there are two separate processing points such as the Beitbridge (South Africa and Zimbabwe) border post or there is a one-stop border post such as the Chirundu border post (Zambia and Zimbabwe). The implication of this, therefore, is that it is not only improvements in both hard and soft infrastructure as reflected by the one-stop border post and advanced IT systems that are needed to accelerate trade facilitation, but also improved attitudes of personnel involved in the process of facilitating trade.

Tavengerwei (2018) argued that burdensome customs administration in developing countries range from administrative processes, lack of transparency that translates into difficulties to anticipate the amount of payable duty, cumbersome customs procedures, applicable rules on duties and taxes, challenges associated with preparing for the relevant documentation to inefficient physical control of goods at borders discouraged most SMMEs in participating in cross-border trade. SMMEs are the most significant players in cross-border trade as reflected by the most recent survey conducted by the International Trade Centre (ITC) on 2 262 firms. The study indicated that 82% of them are MSMEs. The challenges in trade facilitation were acknowledged by the former WTO Director General Pascal Lamy who said, in sub-Saharan Africa, almost double the number of documents for customs procedures are required; and goods take about 32 days for exports and 38 days for imports to clear".[2] This can, in turn, affect other issues such as consumer rights to return goods as indicated by ITC statistics, which show that only 10% of transactions involve return sales, cancellation and refund requests (Tavengerwei, 2018).

Other challenges include corruption related to customs procedures. This can emanate from lack of transparency to small packages that can easily go missing (Hoekman and Shepherd, 2015). These issues are rarely mentioned in theoretical postulations as argued by Jonsson and Holmström (2016), who highlighted that the supply chain planning theory is of little practical relevance. For instance, in the case of the former, before the introduction of the Trade Portal in Malawi, the Malawi Bureau of Standards did not publish mandatory customs fees and duties, which made it difficult for traders to plan. Similar traits on lack of transparency are still common across border centres in Africa. In Zimbabwe, the situation is exacerbated

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[1] Kevin Dooley, "The Butterfly Effect of the "Butterfly Effect"", (13) Nonlinear Dynamics Psychology and Life Sciences (2009) 3, 1-3

[2] Former Director General Pascal Lamy, 'Speech at the World Customs Organisation in Brussels' (World Trade Organisation, 24 June 2011) https://www.wto.org/english/news_e/sppl_e/sppl_e.htm

by the fact that the country has been changing its base currency and customs rates several times since the introduction of the 'bond notes'[3] in late 2015. However, the SADC region is not affected by security issues as with other African regions such as the Bakassi border (Nigeria and Cameroon), which is under constant threat from pirates and Boko Haram, which results, in some instances, in the military accepting bribes in exchange for security provision when cargo is crossing the border (Kaipia *et al.,* 2017; Zhu *et al.,* 2018; Dan and Carlotta, 2019).

The conceptual framework of this study centres on customs risk management (CRM), its evolution and adaptation to the specific needs of the department of customs in a revenue authority that operates in a dynamic international trading environment along with the concomitant desire to ensure trade facilitation (TF) in global supply chains. Customs reform is a central aspect of trade facilitation: Modernising customs practices supports improving enforcement of regulatory compliance and increasing revenue collection while facilitating trade (COMCEC Coordination Office, 2018). The external and internal contexts within which the CRM and trade facilitation activities are managed are a fundamental consideration. Emphasis is placed on the goals, objectives, strategies, scope and parameters of TF and CRM, while external factors, such as the legal, economic and cultural environment, as well as, internal factors such as the customs administration's structures, objectives, strategies and capabilities (Barratt and Barratt, 2011, de Campos *et al.,* 2016; Odebiyi and Alege, 2019). In terms of theoretical postulations, the seminal work of Smith (1776) on absolute advantage and Ricardian (1817) comparative advantage theory underpins the international free trade theory. They provide the rationale and motivation for nations to engage in international trade. As nations shift from autarky or mercantilist policy and gradually adopt free trade practices, trade costs are lowered and trade flows increase, which result in individual and national improvements in the welfare of the trading countries (Armington, 1969). While these theories did not explicitly allude to trade facilitation as a tool for opening up international trade, it can be inferred that it is indeed one of the tools since it not only lowers trade costs, but also increases flow of trade, both of which are practices of opened trade.

The second theoretical framework is the theory of constraints (Goldratt and Cox, 2004). It provides a methodology for identifying factors limiting the smooth flow of cargo across borders. In practice, these constraints range from hard infrastructure such as transport-related infrastructure including railways, roads as well as warehouses with refrigeration and air conditioning facilities. Soft infrastructure includes ICT infrastructure such as cable and satellite technology (Stank *et al.,* 2012; Tavengerwei, 2018). Developing countries such as Zimbabwe are characterised by generic problems of a lack of ICT infrastructure that can facilitate trade. These usually manifest in the form of failures in power generation and expensive wireless broadband systems (Sakyi *et al*., 2017). At a regional level, statistics indicate that 48 of the SSA economies have a combined power generating capacity equivalent to that of Spain, which has a significantly smaller population.[4] In general, lack of power disrupts the full functionality of trade facilitation (ITC, 2018).

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[3] A form of a fiduciary note whose value was backed by the AFREXIMBANK. However, majority of stakeholders did not have confidence in it, leading to its sharp plummeting in value.
[4] Vivian Forster and Cecilia Briceno-Garmendia, 'Africa's infrastructure, A Time for Transformation', The International Bank for Reconstruction and Development/The World bank (2010) 6.

Intertwined with the above-mentioned constraints is the gravity model of trade by Tinbergen (1962). The gravity trade model borrows from Newton's theory of gravity and it posits that comparative economic size draws countries to trade with one another, whereas increased distances diminish the attractiveness to trade with each other. In this model, 'distance' is measured by trade costs and the greater the trade costs, the more economically 'distant' the countries are (John *et al.*, 2018). The model is flexible to incorporate and can be included as 'distance' variables, but also other country idiosyncratic variables or constraints such as whether or not the country is landlocked, a member of a free trade area, and cultural differences among other factors. These salient features and cultural differences can then translate into several challenges between cross-border traders and customs officials thereby stalling the process of trade facilitation (Hoekman and Shepherd, 2015; Tavengerwei, 2018, Pasara, 2020).

Improved trade facilitation would technically reduce 'economic distance', thereby reducing trade costs and increasing the level of bilateral trade. Finally, this paper also considers Armington's (1969) trade theory, which holds the view that non-trade costs play a significant role in international trade. More specifically, Armington's theory employs the concept of elasticity of substitution and assumes imperfect substitution between demand for imports and domestic supply and asserted that products are differentiated by place of origin (Pasara and Dunga, 2019). What this implies is that, since products are not perfect substitutes, complex border processes will make the imported product more inelastic thereby adding significantly to the cost associated with importing it. Other factors that reduce the level of elasticity include non-trade costs such as overseas shipments, total logistics costs, which account for between 30 and 50% of the landed cost of goods. Therefore, the theory by Armington accounts for shipping costs, tariffs and the attendant customs documentation and formalities involved in processing.

This section provides a short summary of empirical results from international studies. Using econometric analysis in a multi-country study, which included 15 high income countries, 39 upper middle income countries, 32 lower middle income countries and 21 low income countries, results by Moísé and Sorescu (2013) indicate that enhancing trade facilitation positively impacts the flow of trade. The most significant measures were information availability, automated processes, simplification and harmonisation of documents, impartiality and good governance, streamlining of border processes, and risk management. The authors further highlighted that the most important factor for low income economies was harmonisation and document simplification. Similar results were also observed for the Sub-Saharan African economies. The factor that had the strongest impact on lower-middle and upper income countries (Caribbean and Latin America, Central Asia, Eastern Europe) was streamlining procedures. They concluded that the impact of trade facilitation is important in specifications of developing economies when they are both importing and exporting. The results confirm that improving the trade facilitation environment in developing economies significantly impacts on export performance. Therefore, improving efficiency of exporting procedures and addressing bottlenecks are important.

Taking into account overall trade, harmonising and simplifying documents and use of automated processes have the greatest impact on low income countries. The latter reduces trade costs by 2.3% and the former by 3%. The effect of harmonising documents on lower-middle income economies was 2.7%, while that of streamlining procedures by employing automation was 2.2%. Costs for upper-

middle income economies will reduce by 2.8% due to streamlining of procedures, while using automated processes and risk management will lower costs by another 2.4%. A combined regression is likely to lower overheads by 13.2% for upper middle, 15.5% for lower middle income, 14.5% for lower income economies. Consequently, combined effects are greater than individual measures due to multiplier effects, which confirms the significance of undertaking comprehensive measures in trade facilitation reforms as opposed to isolated measures.

Milner, Morrissey and Zgovu (2008) investigated trade facilitation in developing countries and observed that trade reforms are significantly beneficial. More specifically, improvement of customs clearance procedures, automation, reducing excessive document requirements, improving cooperation between customs and other agencies and modernisation. The authors suggested regional integration arrangements as an inclusive solution. Integration arrangements must include increased efficiency in revenue collection, reducing trade costs and promotion of regional cooperation. Minor and Tsigas (2008) highlighted that although there was an overall growth in trade to GDP ratio from 5.5% in 1950 to 19.4% in 2005, diversification of trade has not been experienced at the same pace. Moreover, the share of least developed countries (LDCs) on growth of trade has lagged behind other higher income groups. Exports of LDCs remain dominated by low valued goods especially from the primary sector. Despite tariffs reducing in LDCs over the past few decades due to regional integration, analysts also identified poor trade facilitation facilities (more time to move goods across borders) as another trade barrier (Djankov *et al.,* 2006; OECD, 2003). They concluded that a delay of one day increases costs by 1%. Other studies also confirmed that 'indirect costs' from time delays have greater impacts on volume of trade than 'direct costs' do (OECD, 2003). This relationship is popularly known as the 'iceberg effect', where direct costs are just an iceberg tip compared to indirect costs (Hertel, Walmsley and Ikatura 2001).

Hummels (2001) demonstrated that the value of time delays significantly varies among US merchandise imports. For instance, expediting delivery has minimal effects on commodities such as minerals and non-perishable agricultural products such as grain implying they have low time values. Contrastingly, manufactured products have high time values due to higher depreciation rates in terms of their market value. Results indicated that a one-day delay in apparel products equals 0.8% ad-valorem tax. Consequently, the extent of delays substantially affects the type of products traded in each economy.

Minor and Tsigas (2008) employed a computable general equilibrium (CGE) model on four income groups of countries: high income, middle income, all low income and low-income sub-Saharan African (SSA) economies, and explored reduction in trading time using simulations. They found that economies realise the largest wealth if they decrease trading time, while other nations do not, that is, in *ceteris paribus* mode. Likewise, benefits reduce as other countries follow similar patterns. The results confirm the supply chain theory, which conjectures that "the benefits of fast delivery times for the fastest deliverer increase as the variance between him and next fastest deliverer grows." In SSA, results also indicated that a reduction in time delays stimulates greater share of exports of value-added products and increases in intra-trade at the regional level. Using firm-level analysis for a large group of European countries on small to medium firms with employees ranging between 10 and 249, Hagsten and Kotnik (2017) observed that export intensity is strongly

linked with advanced ICT capabilities (both within the firm, exporting agencies and customs authorities) compared to the pure decision to export. Beverrelli, Neumueller and Teh (2015) estimated the effects of facilitating trade on diversification of exports by measuring twofold broad margins, i.e. number of export destination served by merchandise and number of exported merchandises by destination. Results indicated a positive influence of TF on trade margins.

Ismail and Mahyideen (2015) quantified both soft and hard infrastructure and posited that it plays a strategic role in facilitating Asian trade, especially in its recently liberalised environment. More specifically, results showed that when transport infrastructure improves (ports, air transport, road density network, railways, and logistics) there will be improved trade flows. ICT infrastructure (mobile phones, telephone lines, internet users and secure servers, broadband access) also has positive effects on importers and exporters. The paper concludes by noting that emphasis has been historically given to the impact of hard infrastructure, but there must also be thorough examinations on soft infrastructure. In a study covering 189 countries, including 44 Sub-Saharan economies, Shephered (2017) examined the relationship between trade facilitation, infrastructure and value chain participation by applying a network analysis method to derive measures of value chain connectivity. The author found a significant link between the stated measures and summary indicators of performance on trade facilitation and infrastructure development. In addition, the study also observed that both the performance of the country and its neighbours matters. Therefore, policies on infrastructure and trade facilitation must be addressed at a regional dimension, especially in SSA economies, that they can connect to global value chains.

3. Methodology

3.1. Research design

The research philosophy of this study is anchored around the three research paradigms of ontology, epistemology and axiology, taking from the postulation by Hudson and Ozane (1998) that reality is both multiple and relative. Thus, in order to capture several subjective elements relating to trade facilitation, the researchers adopted a qualitative approach. Furthermore, as stated by Willis, Mukta and Rema (2007), interpretivists tend to favour qualitative methods, and assert that qualitative approaches produce reports with a great deal of detail that are essential for interpretivists to comprehend their context. A qualitative study provides a way for exploring and understanding the meaning individuals or groups assign to a social or human problem (Creswell, 1998). Therefore, in supply chain management research, if a scholar seeks to understand the knowledge, attitude and practices of those involved in or affected by trade facilitation, qualitative methods are likely to be the best-suited strategy.

3.2. Sample and data collection

The population for this study comprised ZIMRA customs officials. This study adopted the recommendations by Creswell (1998) of five to 25 participants for phenomenological studies.

The study employed purposive sampling to select key informants for interviews and questionnaires. Snowball (friend of a friend) sampling was used to identify other key informants. A structured questionnaire was administered to selected customs officials. The data obtained was both quantitative and quantitative in nature, using interview guides and the interviews were conducted with selected officials who were drawn from the Zimbabwe Revenue Authority. Interviews were held with selected participants to capture their knowledge, practices and attitudes towards trade facilitation and related processes in customs regulatory control. The researchers scheduled the meetings during periods that were convenient to the selected participants and the interviews were conducted in environments that were permissive and non-threatening to the participants.

Discussions lasted approximately one hour and followed a semi-structured topic guide to ensure coverage of specific aspects in line with the objectives of the study. This method allowed for open-ended sharing of information from the participants with regard to their trade facilitation in supply chain management knowledge and experience. Secondary information was also collected using content analysis guided by the study objectives. Some of the information collected under this method included relevant policies and legislation in customs administration, trade facilitation, and logistics.

Data was collected from ZIMRA staff operating at the ports of Beitbridge border as well as the customs division at the Harare Head Office. In total, 12 face-to-face interviews were arranged through confirmed appointments with targeted interviewees. Out of the 12 interviews that were organised, only nine were conducted as per prior arrangements, while three were cancelled and arrangements for re-appointments were not possible. A total of 60 survey questionnaires were distributed at Beitbridge border post and Harare Head Office. Of these 60 distributed survey questionnaires, 50 responses were returned. As shown below, this gave an overall response rate of 81.94%. From the total number of participants, 6.8% occupied the position of senior manager, 13.6% identified themselves as managers, while 22.1% were revenue supervisors and the remaining 51% were revenue officers who serve on the front-line. A total of 61% of the respondents indicated they had two to five years working experience at Beit Bridge, while 32% were in the range of more than five years working experience. The working experience of the remaining 7% were those with less than two years working experience, who were located at in Head Office.

3.3. Data analysis

The study used SPSS and NVivo software applications for analysis of quantitative and qualitative data, respectively. Thematic and content analyses were used to code qualitative data. Multiple qualitative data sources allowed for data verification, triangulation and complementarity to provide extent and descriptions of issues identified in the study. Efforts were made to establish association between/ among variables using Pearson correlation and cross-tabulation analysis. Graphs, frequency tables, cross-tabulations and selected statistical tests were used to present quantitative study findings, while thematic analyses with the aid of frequency tables and quotable quotes were applied for the presentation of qualitative study findings.

Quality and validity of the process was ensured by sending questionnaires for quality control with other experienced researchers and supervisors. Secondly, interviews and FGDs were scheduled in advance to ensure quality attendance and

discussions on data collection. Finally, feedback was sent to respondents through emails after the transcription process was completed.

Several processes were used to ensure objectivity and moral integrity is attained. Firstly, structured questionnaires were send for quality control to the ethical clearance committee and the supervisors of the ZIMRA offices before an ethical clearance certificate was issued. Secondly, participants were notified that participation is voluntary and their personal information would remain anonymous.

4. Research findings

4.1. Training and policy in trade facilitation

The dispersed nature of customs operations often necessitates that more experienced staff are sent to outstations while those with less experience are nurtured and trained at main office. Results indicate that an overwhelming majority of the participants had received specialised training in trade facilitation. A total of 96% stated that that they had received some form of basic trade facilitation training offered internally by ZIMRA as part of the modules for elementary levels I and II of the traineeship programme offered at the training school. Others referred to training in the form of hands-on sectional review meetings.

Approximately 26.5% of the respondents indicated that they had received training on trade facilitation less than six months ago while 25% indicated that it was more than six months but less than twelve months. Majority of the respondents, about 35% of the respondents highlighted that they were last trained more than a year ago but less than two years. Around 8.5% indicated that they received training more than two years ago while only 5% indicated that they never received training on trade facilitation.

Although some participants received training on more than one aspect of trade facilitation, the majority received training in the areas of authorised economic operator, customs risk management and coordinated border management. These training aspects are in line with best practice standards as set out by WCO SAFE framework of standards and the 2013 Bali WTO ministerial agreement.

Table 1: Trade facilitation training received

Authorised economic operator	Customs risk management	Coordinated border management	Customs valuation	Never
14 (28%)	12 (24%)	18 (36%)	4 8(%)	2 (4%)

Source: Authors computations based on survey data.

In addition to the statistics indicated in Figure 1 and Table 1. which show the level of training received by the respondents, participants also indicated their interests in further training. More specifically, 16 respondents indicated a desire for training on customs rulings, 24 on import controls, nine on regional trade agreements (RTAs), 28 on single window and only four on customs valuation. Further analysis

of these responses reveals that respondents had not been trained on nor were they keen to be equipped with 'soft' dimensions related to intangible aspects, which include governance and impartiality, involvement, cooperation, transparency and the business environment, which are key to efficient and effective trade facilitation. The interviews also revealed that the main themes that would improve either at organisational or individual level are confidence, efficiency and image. Through training, the participants stated that they could perform tasks faster with fewer errors. One participant, for example, commented:

> "If you don't know what you are doing then it doesn't matter how much time you are allocated to do it. It simply won't get done."

In terms of image of an organisation, this theme brought out the essential point that as an ISO 9001:2009 certified organisation, offering a service to the public, the organisation ought to have a good image in the public eye. It is widely acknowledged that customs officers have not always maintained this image. The perceptions of the public of these officers often are seen as creating trade facilitation bottle necks in order to solicit bribes by offering to expedite cargo movement (IMF, 2003; Morini *et al.*, 2017; Tavengerwei, 2018). With regular training, the participants felt they would be more equipped to improve the corporate image of the customs authority and inspire confidence in their customers and the general public. When prompted to respond to the question of whether the organisation's strategic plan makes reference to trade facilitation management, an overwhelming majority (88.1%) of the respondents responded that they were not sure, while 10.2% of the research participants indicated that they were confident that ZIMRA's strategic plan included trade facilitation management, as indicated in Figure 2. Only 1.7% of the respondents stated that customs authority's strategic plan does not make reference to trade facilitation management. From the responses, senior management are aware that the strategic plan contains a trade facilitation management framework; however, as one goes down the organisation, this awareness is not shared, indicating differences between senior, middle level management and shop floor workers.

In subsequent questions, respondents were asked to respond on the availability of a trade facilitation policy documents, and an overwhelming majority (91.5%) stated that they were 'not sure', while 8.5% indicated that such a document did not exist in the organisation. The researcher's desktop review failed to establish the existence of trade facilitation participation document for the organisation. Nonetheless, whether such a document is in place or not will not be of much consequence to the customs authority as a significant majority are either not sure if it is available or are convinced that it does not exist. Similarly, approximately 88.14% of the respondents were not sure if a strategic document existed, while an additional 1.69% asserted that it did not; only 10.17 highlighted that they were aware of the strategic document. The study also attempted to gain insight into the attitude of the organisation towards trade facilitation by establishing if resources were being allocated by the management. In their responses, 74.6% said high-level management were moderately involved in the actual implementation and enforcement of TF on the ground, while 15.3% felt that high-level management were 'somewhat' involved, while only 1.7% felt 'strongly' about high-level management's involvement, while 5.1% and 3.4% were convinced that high-level management were somewhat detached and not involved at all, respectively. The results indicate

that prioritisation of TF with regard to allocation of resources such as time and finances is perceived as a secondary function in the organisation. This sentiment, together with the ignorance on a TF policy document revealed that the organisation's strategic thrust and execution did not fully prioritise trade facilitation. As a customs authority, emphasis still lay on revenue collection and enforcement of controls.

4.2 Risk factors in customs administration and treatment measures

Participants were asked to rank the main focus of risk management in their daily work. The results are presented in Table 2. A relatively small percentage considered its use to be in revenue collection and the protection of domestic industries as well as revenue collection and protection of society.

Table 2: Main applications of customs risk management

Application	Frequency	Percentage
Revenue collection & local protection of local domestic industries	1	1.7
Revenue collection & trade facilitation	9	15.3
Revenue collection & enforcement of controls	44	74.6
Revenue collection & national security	3	5.1
Revenue collection & protection of society	2	3.4

Source: Authors computations based on survey data.

The participants were asked if they are aware of any risk management reviews and updates done so as to keep up with the changing environment in trade facilitation and were subsequently questioned about the frequency of these changes. On the questionnaire, five participants chose not to respond to this question. However, out of those who responded, a significant percentage of 81.5% indicated they were aware of some form of risk review or update that had been done to keep up with changes in trade facilitation, while 19.5% of them were not aware of any such reviews or updates. Of those who responded in the affirmative, when further prompted to respond to the frequency of those changes, 90.9% stated that these changes took place on a monthly basis. 6.8% considered these changes to take place after a month. Only 2.3% considered these changes to be taking place on a weekly basis. During the interviews, participants were asked to offer any risk management-related suggestions to be incorporated by ZIMRA in its procedures for increased efficiency and effectiveness in trade facilitation.

Table 3: Number of mentions risk management

	Number of mentions			Total mentions
Risk management suggestions to increase efficiency in trade facilitation	T26	T28	T29	
Use of technology	1		2	3
Remuneration of staff		2		2
Single window		1	1	2

Source: Authors computations based on survey data.

Quoted below are some of the responses with regard to risk management.

'In this day and age, you can't rely on manual checks, using technology can greatly improve risk management' (T26)
'If staff are not well paid, they become the first and greatest risk. If they have good salaries, I believe that is where risk management starts' (T28) 'when you talk about risk management, it's all about processes and procedures. These have to be streamlined. Single windows make life easy' (T29)

Although various scholars have posited technology and the 'single window system' as tools for risk management and trade facilitation, the interviews revealed that the issue of staff compensation and remuneration was also an important consideration when discussing risk management for the purposes of improving efficiency and effectiveness in trade facilitation. Moreover, the respondents also revealed that ZIMRA does not have a standalone trade facilitation unit at the border that specialises in coordinating, implementing and managing trade facilitation issues. In general, risk management requires a holistic approach from individual to institutional approaches. As indicated in Table 4, the majority of respondents asserted that the use of ICT has been partially used to maximise revenue collection and trade facilitation. The distribution of responses indicates that the majority of responses indicate that to a certain extent, most of the respondents perceived ICT to have been used effectively to enhance revenue collection and trade facilitation.

Table 4: Proportion of responses to use of ICT in TF and revenue collection

Response	Frequency	Percentage
Very highly	1	1.8
Highly	10	17.5
Medium	41	71.9
Rarely	3	5.3
Not at all	2	3.5
Total	57	100

Source: Authors computations based on survey data.

To gain an understanding of how middle and senior-level managers appraised their workforce, the researchers probed further by how they would rank their staff's confidence level in the ordinary daily use of current ICT systems in clearing cargo at their respective stations. The majority of managers considered their staff to be confident in their ordinary daily use of the current ICT system used to clear cargo, which is ASYCUDA world. However, only 20.3% considered their staff to be highly confident, with 77.9% perceiving them to be just moderately confident. 1.7% stated that the staff lacked the required confidence. Further analysis was then conducted to determine which station felt the most confident in their staff's ICT ability. Results show that management at Beitbridge regard their staff as having superior confidence in the ICT system used for clearance of goods. Beitbridge staff are directly involved in the clearance of cargo at the port of entry. Staff at the Harare office are involved in other administrative functions such as rebates, compliance and administration. In terms of level of reliability in ICT systems, which ranked from

'Very reliable' to 'Not reliable at all', the study aimed at understanding from the trading and logistics community issues such as whether the internet systems and connectivity were not dependable. One senior manager responded, 'By and large, our systems are reliable and robust, of course there are failures here and there which can lead to a lot of challenges. One failure does not mean something is not reliable.' (T28).

Table 5 indicates other causes of delays that were identified by respondents as the main ones.

Table 5: Administrative and legislative causes for delays

Administrative and legislative causes for delays	Number of mentions
Too many cross border regulatory authorities	19
Infrastructure constraints	11
Opening and closing times of border offices	8
Slow payment methods	7
Power supply interruption	5

Authors computations based on survey data.

Generally, the results reflect that most of the respondents perceived the systems to be reliable, with one participant stating that the systems were very reliable. Most intermittent system failures were always resolved within a reasonable period. However, challenges were mainly emanating from other structural issues highlighted in the table above. These were largely legislative and administrative.

5. Discussion

The results presented above generally confirm earlier arguments raised by Mafurutu (2015) and Murevererwi (2015) who argued that Zimbabwe's trade facilitation processes (or rather challenges) were affected by internal structures. These constraints will have, as Lorenz (1960) earlier argued, butterfly effects which will then constrain cross border facilitation system.

The results also confirm arguments raised earlier by Tavengerwei (2018) who argued that developing nations are characterised by burdensome customs administration which is usually reflected by complex administrative processes and lack of transparency. The latter usually leads to corruption (Hoekman and Shephered, 2015). In addition, the results also confirm the arguments postulated in the theory of constraints (Goldratt and Cox, 2004) whose methodology revealed that a combination of hard (railways, roads, warehouses, refrigeration services) and soft infrastructure (ICT, cable and satellite technology) are necessary for efficient trade facilitation (Stank *el al.* 2012). On the other hand, the effects of salient features such as cultural differences and infrastructural constraints as emphasised by Tavengerwei (2018) were also highlighted by the respondents as significant influencers of trade facilitation.

This paper adds some valuable literature to trade in Africa especially in light of the recently signed African Continental Free Trade Agreement (AfCFTA).

Whist the AfCFTA places more emphasis on tariff reduction, this paper reveals some salient aspects of trade which should be addressed to accelerate the intra-African trade. More importantly, the results can be used as a baseline and recommendations can be replicated by other revenue authorities across Africa. Trade facilitation is just as important as tariff reduction and several other aspects of trade. As such, due attention should be given. Secondly, the paper provides a rather rare perspective on the attitudes and perspectives of officials with regards to trade facilitation. These responses cannot be easily extrapolated using, for instance, time series data. As such, it becomes challenges to provide balanced analysis on trade promotion without such information.

6. Conclusions

This study aimed to analyse the significance of trade facilitation in Africa in light of the economic integration efforts such as the signing of the AfCFTA. A case study of the attitude, knowledge and practice of the customs administrators of the Zimbabwe Revenue Authority (ZIMRA) was considered due to its strategic geolocation between South Africa and several southern African countries. The study revealed that a significant majority of the respondents had received some form of specialised or work-related training in trade facilitation and that most of this training had taken place in the last two years. However, there is a need to align the strategic plans and policies of the customs authority to trade facilitation measures and increase awareness to all stakeholders.

Although low compensation and remuneration were identified as risk factors, respondents seem to generally concur that the risk reviews and updates are being sufficiently carried out at ZIMRA. To mitigate risk, the study recommends ZIMRA to continuously review their compensation package and benchmark it to regional standards. The revenue authority can also engage in meetings to keep their staff motivated. To mitigate risk, there is a need for an independent trade facilitation unit across stations. Since most respondents indicated a greater level of confidence in the use of ICT and other soft infrastructure systems, improvements in these areas could smoothen the trade facilitation and revenue collection processes thereby minimising constraints that bottleneck the flow of merchandise. Moreover, there is a need to enhance single window operations and training that will streamline border operations as multiple regulatory authorities present multiple bureaucracies and time wastage at borders. There is also a need for a coordinated approach on trade issues within government. Alignment of line ministries related to trade and trade facilitation such as the Ministry of Finance, which is ZIMRA's parent ministry, the Ministry of Industry and Commerce as well as the Ministry of Foreign Affairs and International Trade, including also the Ministry of Transport and Infrastructure Development. At the regional level, countries should enhance their coordinated border activities through regular meetings, real-time data and information sharing as well as assisting each other in controls and revenue collection.

The main contribution of the paper is that it managed to get an understanding of the attitudes, knowledge and practices of key personnel who are involved in the process of trade facilitation process. The Beitbridge border post is arguably the busiest and among the very few ones which operate 24 hours in the Sub-Saharan African region which makes it a very strategic point of reference.

Thus, identifying factors influencing trade facilitation processes through staff responses gives the readers an inside and rather different perspective from the perspective, had for instance, clients been interviewed. In addition, ZIMRA officials also gave access to the researchers additional legislative and administrative information which brings to light some salient yet key aspects of trade facilitation.

The main limitation of the study is that one country and organisation (Zimbabwe and ZIMRA, respectively) were considered, more so that the country itself is currently facing internal economic and political challenges that bring certain idiosyncrasies that may not be applicable to other economies in the region. Future studies can take into account cross-country factors to have a more representative regional outlook. Secondly, the nature of the data collected does not allow for other deeper econometric methodologies to be applied. Thus, studies which incorporate this kind of are encouraged in future.

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