Investigating the causes of Delays at Border Posts: A focus on institutional and infrastructural factors at Beitbridge Border Post

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Abstract

Beitbridge is regarded as the busiest and the most inefficient border post in Sub-Saharan Africa due to its poor state of systems and infrastructure. It takes travellers more than two hours to cross the border on a normal day, and a minimum of two days during holidays. Trucks spend up to five days trying to get cleared and cars queue for kilometres from the immigration buildings. These cause problems of delays, corruption and revenue leakages at the border. This research investigated how institutional and infrastructural factors contribute to delays at the Beitbridge Border Post and identified possible solutions to these delays. Using the "border theory" as a theoretical framework, the research documented and focused on major issues around delays and problems at the Beitbridge Border Post, and possible solutions. Being an exploratory study, the research used an inductive qualitative approach to using primary and secondary data sources to understand issues that contribute to delays at the border post and to come up with a possible policy recommendation. The findings revealed that most institutional problems causing delays at the border are duplication of tasks between different agencies operating at the border post and resistance to procedures due to failure of following instructions by users. Infrastructural problems causing delays at the border include, amongst others, the usage of a single bridge that causes congestion and convergence of traffic at the gate; and the reason that there is no enough parking on both sides of the border. These findings support the border theory in terms of how borders impact people's daily lives.

Key words: Beitbridge Border Post, Causes of current delays, Institutional and infrastructural factors, Possible solutions to delays.

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Glossary of Abbreviations

BBEMS	Beitbridge Efficiency Management System
CBM	Coordinated Border Management
ICT	Information and Communications Technology
COMESA	Common Market for Eastern and Southern Africa
DFID	Department of International Development
EAC	East African Community
FESARTA	Federation of East and Southern African Road Transport Association
OSBP	One Stop Border Post
OECD	Organisation for Economic Co-operation and Development
SADC	Southern African Development Community
SARS	South African Revenue Services
UNCTAD	United Nations Conference on Trade and Development
UNNExT	United Nations Network of Experts for Paperless Trade
US	United States
USD	United States Dollars
WCO	World Customs Organisation
ZIMRA	Zimbabwe Revenue Authority

1. Introduction

1.1 Background

Uncertainties and delays at border crossing are a reality for any organization or company that transport products across a global supply chain. This is even truer for many countries in Africa where queues and extended bureaucracy often lead to lengthy delays at the borders. In Southern Africa, the bridge at Beitbridge that serves as a border crossing between South Africa and Zimbabwe has come under intense scrutiny for its extended delays.

The Beitbridge Border Post crosses the Limpopo River in the Limpopo Province of South Africa to the Matabeleland Province of Zimbabwe. The bridge was named after Alfred Beit, founder of the De Beers Diamond Mining Company and Director of a number of companies such as British South Africa Company and Rhodesia Railways. There are two bridges at the border post. The original bridge was constructed in 1929 at a cost of USD220 000 and financed jointly between the Beit Railways Trust and the South African Railways. The new bridge was constructed in 1995 to accommodate much heavier traffic than the old one. It was financed by the Zimbabwean Government which benefits from the tolls levied on crossing. The original bridge at Beitbridge is closed, forcing all traffic on to the newer tolled bridge. The bridge remains closed because concessionaire (Beit Railways Trust) cannot toll users because it paid for the bridge to be built in 1929 (Games, 2010).

The Beitbridge Border Post was identified by the Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC) and the Southern African Development Community (SADC) Tripartite as the most important border post on the North South Corridor in 2008. The North South Corridor links South Africa by road and rail with Zimbabwe, Botswana, the Democratic Republic of Congo, Malawi, Tanzania, Zambia and Mozambique (Trademark Southern Africa, 2010).

1.2 Problem Statement

South Africa is Zimbabwe's biggest trading partner, with trade between the two countries standing at R19, 2 billion in 2011, compared to R16, 5 billion in 2010 and R14, 8 billion in 2009. South Africa's main export to Zimbabwe comprises capital equipment, minerals and fuel. Main imports from Zimbabwe are textiles and agricultural products, although trade is largely in South Africa's favour due to Zimbabwe's poor economic performance (Sibanda, 2012).

The Beitbridge Border Post is regarded as the busiest port in the southern region, processing over 10 tons of cargo a day. The border post is also regarded as the most inefficient border post in Sub-Saharan Africa due to its poor state of systems and infrastructure. It takes travellers more than two hours to cross the border on a normal day, and at most 2 days during holidays. Trucks spend up to five days trying to get cleared, at a great cost to transporters and cars queue for kilometres from the Immigration buildings on either side of the border. There is also lack of parking space in the South African yard which makes cars unable to cross until space becomes available (Creamer, 2012).

Congestion has become a major bottleneck to trade and tourism, posing major opportunities for corruption and revenue leakages. Truckers/Traders have to wait about 36 hours at the Beitbridge Border Post for customs clearance procedures. The slow movement of traffic is due to the introduction of exit forms that are supposed to be completed by travellers leaving the country on the Zimbabwean side. The forms demand travellers to state the approximate amount of money they used while in Zimbabwe. They are also expected to state how much they spent on accommodation, food, entertainment, fares, petrol and all other purchases of a business nature. The visitors are also expected to state their country of permanent residence and number of nights they spent in Zimbabwe (Creamer, 2012).

Zimbabwean residents, leaving the country for less than 12 months, have to state family members travelling with them, and country of destination. Those leaving for more than 12 months have to state the country of destination and their last permanent residential address in the country. Most people are struggling to complete the forms, while others do not complete the forms properly since they are not familiar with them. Some are reluctant to comply with the new arrangement which they viewed as time consuming and not user-friendly. Many have

to re-write the forms because they complete information on all blank spaces including those questions which do not affect them. This results in lengthy delays and congestion at the border.

1.3 Research Objectives

The research objective is to investigate how institutional and infrastructural factors are contributing to delays at the Beitbridge Border Post and identify possible solutions to these hurdles.

1.4 Purpose and Significance of the Research

The purpose of the research is to investigate causes of delays and possible solutions at the Beitbridge Border Post. The specific focus is on the institutional and infrastructural factors and how they contribute to problems and delays at the border. As the majority of the current literature focuses on studies of international boundaries (known as border theory) that focus on the origin of borders, their identities and how they materialise; this research aims to add to the body of knowledge by using this theoretical framework, to not only understand the current institutional and infrastructural problems at Beitbridge, but to show how this is reflected in the dynamic reflection of change in socio and economic institutions, as stated by Newman (2006).

The research therefore adds to existing knowledge on border management but adds more value in terms of border management for developing countries and illuminates border problems in countries such as Zimbabwe and South Africa. The significance of this research indicates that not many studies have been conducted in the SADC region, based on available literature / data. Hence, this research may be useful in comparing findings with results from other border posts, and could be used in shaping executive decisions around border management.

Specifically, this research will be beneficial to a number of stakeholders, namely: policy makers (such as the Government) in harmonising the regulatory framework to be in line with international standards; border managers and staff in designing an appropriate layout and recommending an appropriate financial model for the Beitbridge Border Post; the private sector in the provision of services (such as infrastructure, construction and revenue collection

mechanisms); and law enforcement in combating organised crime (and other similar threats), safety and ensuring the smooth flow of goods.

1.5 Research Questions

While the literature is replete with many factors that contribute to border delays and its inherent economic impact, this research was specifically interested in addressing the question, "How do institutional and infrastructural factors contribute to delays at the Beitbridge Border Post?" To achieve this, the research specifically looked at the following sub-questions:

- What institutional problems are evident at the border post?
- What infrastructural problems are evident at the border post?
- What are the current traffic types and volumes at the border post and their impact on time?
- How can procedures and processes be simplified and harmonised to be in line with international standards and to include systematic risk management?

1.6 Research Assumptions

It was assumed that the sample was representative of the population and that the participants gave honest, knowledgeable and unbiased feedback during the interview process to realistically reflect their viewpoint and experience.

As a result of the research being administered for academic and not work related purposes, it was also assumed that interviews would be conducted during the participants' personal time and that the interviewees would not object in taking a maximum of 30 minutes of their personal time to be interviewed.

1.7 Research Ethics

This research relied on human interaction as the primary source of information. As a result, the researcher applied for, and signed, an Ethics Clearance Certificate and Memorandum of Understanding as a pre-requisite for the successful submission of the research report to the University Of Cape Town Graduate School Of Business.

Since the interviews were conducted with truck drivers, pedestrians/individuals, agency staff and border management, the researcher made every attempt to protect the identities of researched subjects. All parties involved were thoroughly briefed on the academic nature of the questions as well as the fact that they form part of the requirements of the awarding of an academic degree. Verbal consent was requested from all the participants interviewed for this research and they were aware that they would be acknowledged in this research. A clear description of the recording devices used, information to be collected and a list of who will have access to it (e.g. other Universities, and Research Ethics Board) were communicated to the participants. A brief background on the aims and procedures of the research project, specified what would be required of the participant, and the estimated length of time (maximum of 30 minutes) that would be taken by individual interview, was also communicated to the participants.

Instructions about who the participants may contact from the University of Cape Town Graduate School Of Business, if they have any questions, concerns or complaints about the research procedures were also shared with the participants. An instruction that participation is voluntary and that participants were free to withdraw at any time was also communicated in advance. Participants were also informed that they were not obliged to answer any questions that they found objectionable or which would make them feel uncomfortable.

2. Literature Review

2.1 Introduction

This literature review section provides some important background information on the problem, a synopsis of what was written on borders, identifies gaps in the literature and how the study attempted to fill that gap, and fit into the general literature on problems at border posts. The research explored the problem by first looking at the border theory, including its definition and major issues around delays at border posts, and then identified the contribution as well as potential areas of improvement.

2.2 Definitions

Normally, the discussion and academic debate around borders hinge on visibility and physical control. Newman (2006) defines a border as physical and highly visible lines of separation between political, social and economic spaces. Megoran (2011) goes on to break the border phenomenon into two distinct structures he calls international boundaries and international borders. He defines international boundaries as invisible vertical planes that show the horizontal extent of countries. Megoran (2011) goes on to define international borders as the institutional paraphernalia that marks the boundary and practices and institutions that manage and police the boundaries such as Customs and Immigration and the fences, markers and other barriers. Parker & Adler-Nielsen (2012) go on to say that all borders are boundaries but not all boundaries are borders. In order for a boundary to be a border it has to be more formal, explicit and more evident. In essence, what this literature is indicating is that there is no major theory to explain the border and the boundary phenomenon.

2.3 Border Theory

Brunett-Jailly (2005) states that so much work has been done by various disciplines in order to come up with a theory or model of borders. This theory he contends will assist scholars and authorities to understand borders and boundaries better. This is also expressed by Newman (2006) who says that even though there is no single theory that explains the phenomenon of borders, there are some common terminologies that scholars and different disciplines can borrow to broaden their understanding of this phenomenon. But he contends that it was difficult to come to a general consensus of the evolving role of borders in the twenty first century as opposed to what borders were traditionally known to represent. The centrality of his argument was that unlike before, "borders are institutions" has come to increasingly represent the demarcations with terminologies like "us" and "them", "included" and "excluded". What makes his work important for this research is that he argues that borders "should be studied using the top-down and bottom up perspective" with specific focus on the narratives and experiences (Newman, 2006, p.149). This is important because it reflects the ways in which borders have come to impact the lives of people and their potential to connect rather than divide as we have seen in current literature, and border practice.

The study of borders is a rather recent phenomenon which has its roots in the 1980s period when scholars started realising that borders were more than physical barriers but were dynamic reflections of change in socio and economic institutions (Newman, 2006). Not much work on border studies was carried out prior to the 1980s when an operational model on border studies was proposed in view of the US Mexico boundary studies by House (1981; Megoran, 2012). Further work in border studies led to another scholar (Paasi, 1991) who proposed that international boundaries are natural, economic, historical, cultural, economic and symbolic phenomena. He argued that with all these characteristics the boundaries represent territoriality and are socially constructed and more emphasis in studying them should be given to the process of creating the boundaries. Amidst all the various contestations over a border theory, Brunet-Jailly (2005, p.633) developed a borderlands theory which outlines the following:

"*that the literature on borders, boundaries, frontiers and borderland regions suggests four equally important analytical lenses: (1) market forces and trade flows, (2) policy activities of multiple levels of governments on adjacent borders, (3) the particular political clout of borderland communities, and (4) the specific culture of borderland communities"*

Konrad & Nicol (2011) then go on to explain the theory and say that the actions of individuals and their ideologies together with the social laws and processes act together to shape borderland areas. In Africa the notion of borders was not a widespread phenomenon with most of the current borders having been created by Europeans during the Berlin Conference of 1884 to 1885 (Griffiths, 1986). But in order to understand contemporary border issues and therefore understand some of the current problems we have at different border posts, it is important to discuss some of the functions of the border as follows:

2.4 Functions of the border

In looking at the functions of borders, there tends to be various contestations between different scholars as to the functions of the border, Brunet-Jailly (2005) quotes Newman & Passi (1998) who state that borders may be institutions but their functions may be challenged.

Leimgruber (2006) quotes Guichomet & Raffestein (1974) who identified the following functions for the borders:

- Legal function – that is limiting the perimeter of laws and regulations;
- Fiscal function – protecting the economy from foreign competition;
- Control function – to administer access into a country;
- Military function – the boundary's role in national defence; and
- Ideological function – building national identity through controlling schooling.

This research attempts to look at processes as one of the elements of the borderland theory that affects the efficiency of borderland areas. In essence, the inefficiency of one part of the four elements tends to affect the other components. The thesis explores some of the documented problems and issues associated with borderland areas around the world and their impact on borderland interactions.

2.5 Contemporary Border Issues and Problems

With globalisation, the border concept and functions has moved from being physical barriers to the facilitation for the flow of goods. Castell (1997), states that with proliferation of networks of power, information and wealth, the modern state has lost its sovereignty. Contemporary border studies are moving away from borders and some economists (Helliwell, 2002) argue that borders tend to increase marginal costs like transport. These economists contend that borders are a form of a barrier to trade or the free flow of goods. Generally, problems at the border were grouped into two areas, i.e. infrastructure and institutional problems, with the latter looking at issues of processes, procedures and staffing (Taylor et.al, 2004). Taylor et.al (2004) goes on to identify some of the impacts that the delays have, such as congestion and pollution by idling trucks, which in turn affects local communities and the costs on the truckers themselves as extra transit costs.

Another factor that was identified as having a major impact and causing delays at border posts is the limited inland clearance facilities and storage or the accessibility of such facilities. Ghosh & De (2008) identify this problem as the major cause of delays between the Indian and Bangladeshi borders since transporters would want to reduce the delivery costs by not using the inaccessible facilities.

An important border issue that has become a major border problem is the issue of smuggling and crime. There are individuals and groups who operate at borders and attempt to circumvent the law by moving illicit goods and smuggling goods without declaring the goods (Andreas, 2003).

Furthermore, there is a problem of uncertainty by truckers in cases where they may be involved in exchanges with other truckers and also failure to plan future trips such that they end up factoring longer periods into their planning (Taylor et.al, 2004). Inefficient customs and administrative procedures have been labelled by some authors (Beghin, 2008; OECD, 2005) as non-tariff barriers to trade. They state that the delays as a result of inefficient Customs procedures do not only add to trade costs but also lead to other costs such the loss of value of perishable goods and leafy plants while on transit. This they contend will lead to the lowering of price for some products and losses to the producers.

One solution proposed by Phillips (2005) to reduce delays that are attributed to trucks with inadequate papers is to have a traffic management centre on the approach side of the border and divert traffic before it converges at the border gate. But all of these solutions are limited in approach because they have not properly identified the institutional and infrastructural challenges associated with borders in emerging or recently independent countries like South Africa and Zimbabwe. The attempt to control circulation of people, goods and money through borders goes beyond economic calculation. It also includes domestic political contestation, particularly among countries like South Africa and Zimbabwe that have fairly recently attained independence, and are attempting to construct national identities. Therefore, this thesis looks at the institutional and infrastructural challenges from this perspective that has often been ignored in existing literature on border theories.

2.6 Current Border Management Problems at Beitbridge

2.6.1 Processes and Procedures

According to UNECA (2012), the average Customs transaction in Africa involves 20–30 different parties, 40 documents, 200 data elements (30 of which would be repeated at least 30 times), and the rekeying of 60-70 per cent of all data at least once. Kieck (2011) then explains the consequences of such delays where he states that compliance with regulatory requirements imposes costs on trading across borders, especially if this results in delays as a result of cumbersome procedures and requirements, corruption and weak administrative capacity.

Barka (2012) also said that border procedures in most African countries comprise of two sets of cumbersome clearance procedures with one on each side of the border and that these tend to encourage illicit trade and corruption. Evidence of such is postulated by Chiliya et.al (2012) who quotes Zhangazha (2009) in reference to the Beitbridge border post where he indicated that in some cases it may take 12 hours to have a passport stamped at the Beitbridge Border Post and this situation worsens during peak periods when sometimes officials embark on a go slow. He goes on to state that travellers end up paying R30 or R50 to jump the queue.

The other challenge that can be identified in current border systems like those that exist in Beitbridge are the multiple agents that people and goods have to go through on both sides in order to get clearance, Polner (2011) quotes Zoellick (2009) who stated that in the Democratic Republic of Congo the number of agencies at border post can get up to 16 agencies. Polner (2011) goes on to say that the large number of agencies can create delays and bottlenecks which in turn can detract border agencies from achieving their objectives, including Customs (for example, revenue collection, trade facilitation, anti-smuggling, trade facilitation, and collecting trade statistics) and other border agencies (for example, preventing crime, illegal Immigration, influx of pests, and promoting safety and standards).

Moreover, border management also faces rent-seeking by officers who take advantage of the lack of transparency and predictability of trade and business administrations, and routinely find themselves engaged in bribery acts and the under- declaration of goods in order to solicit payment (Barka, 2012).

2.6.2 Border Infrastructure

In 2009, intra-African trade (i.e. trade among African countries) accounted for about 10 per cent of the continent's total trade. This is far below the levels of intraregional trade achieved in Latin America and Asia (22 per cent and 50 per cent, respectively), (Barka, 2012). Some of the major impediments identified by the author as causing low intra-regional trade are poor infrastructure, a lack of human and institutional capacities, underdeveloped and undiversified export base and services, and political instability.

Current border management systems in developing countries use outdated infrastructure and technology which leads to inefficiencies (Barka, 2012). The same sentiments are echoed by McLinden (2011) who states that cumbersome systems, procedures, and poor infrastructure both increase transaction costs and lengthen delays to the clearance of imports, exports, and transit goods. Such costs and delays make a country less competitive—whether by imposing deadweight inefficiencies that effectively tax imports, or by adding costs that raise the price of exports.

2.7 Current Solutions to Border Management Problems

2.7.1 Coordinated Border Management Concept

The Coordinated Border Management (CBM) Concept is a concept that has roots in the classical view to trade facilitation which is focused predominantly on the removal of barriers to the international movement of goods and in particular, on the procedures at and around borders (e.g., simplification of Customs procedures). According to Polner (2011), the CBM concept has its roots in the revised Kyoto Convention entered into by force in 1974 and were revised in 1999, and its main focus was to standardise Customs procedures, introduce 'juxtaposed office' and 'joint controls' and enhance international cooperation with other Customs administrations.

Kieck (2011) concurred with Polner (2011) and reiterated that countries have started to review existing policies and procedures on the basis of international conventions (such as the World Customs Organisation (WCO)'s Revised Kyoto Convention) and best practice that foresees alignment with international and regional clearance and admissibility information requirements, including the WCO's Data Model5; single "Window" interface for advance information reporting for comprehensive government risk management and regulatory purposes; use of advance information for goods, people and conveyances; transnational tracking of people and goods through systems interconnectivity; and use of non-intrusive inspection of goods and travellers moving through ports of entry and exit.

Jain (2011) goes on to identify two forms of coordination:

- Inter-agency coordination among different agencies behind the border is one dimension of coordinated border management; and
- Cooperation with neighbouring countries and the institution of joint controls at border crossings to eliminate or at least reduce duplication of processes/ procedures by sharing information and resources.

2.7.2 Inter-Agency Coordination

Ireland & Matsudaira (2011) wrote that forms of interagency coordination vary widely in scope and include activities such as increased data sharing, harmonization of data requirements and coding, delegation of authority, joint operational activity (such as joint Customs and quarantine inspections), and the use of a single window for border clearance processes. They continue to say that this inter-agency coordination should make it possible for clients to be served in one window compared to the use of several agencies. In Asia a network of experts known as the United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT) was formed to support national, sub-regional single window and paperless trade initiatives (Jain, 2011). A similar system, the Beitbridge Efficiency Management System (BBEMS) that aims to improve intra agency efficiency and reduce the clearing times at the Beitbridge Border Post was launched in 2009 but its implementation has been slow. (Trademark Southern Africa, 2011).

2.7.3 International Coordination

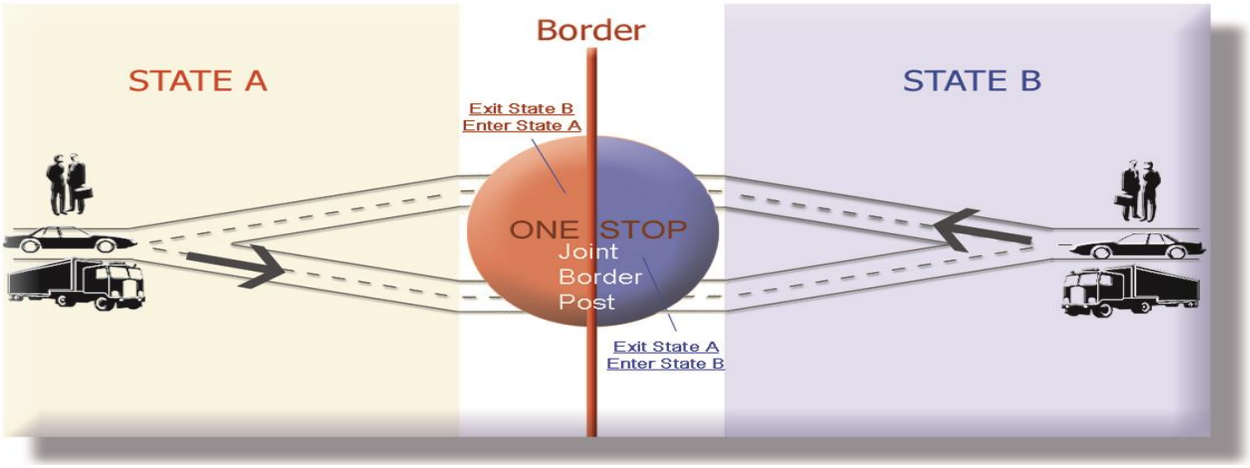
The second dimension of the CBM is what Polner (2011) describes as the international dimension of CBM which describes the concept of a one stop border posts. The concept of one stop border posts is not new and first appeared in Western Europe over 60 years ago with the objective of increasing the effectiveness of the border crossings by reducing the number of stops and participating agencies (Zarnowiecki, 2011).

2.7.4 One Stop Border Post Concept

The OECD (2011) defines a One Stop Border Post (OSBP) as a border post that combines two stops for national border control into one and consolidates border control functions in a shared space for exiting one country and entering another. It goes on to say that the concept entails the performance of border clearance extra-territorially through the creation of a designated common control zone where border agencies share facilities with the aim of eliminating duplication of procedures.

An OSBP Source Book (2011) describes three types of border posts as follows:

- Straddle Border Post

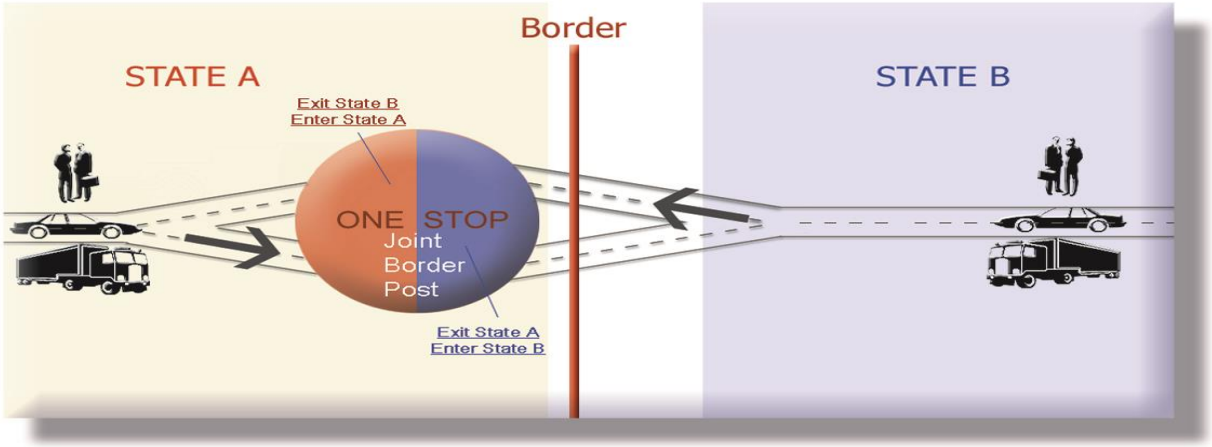


Source: OSBP Source Book, 2011

Figure 1: Straddle Border Post

According to the Source Book (2011), the Straddle Border Post is a single building that is constructed on the border post and it is often used when a new facility is built or where the land is relatively flat. The Source Book (2011) describes the model as one that makes it easy for the agencies to access all controls in one building and enables officers to work on their own sovereign territory. This facility is being built at Rwanda/Burundi border in East Africa.

- Single country border post

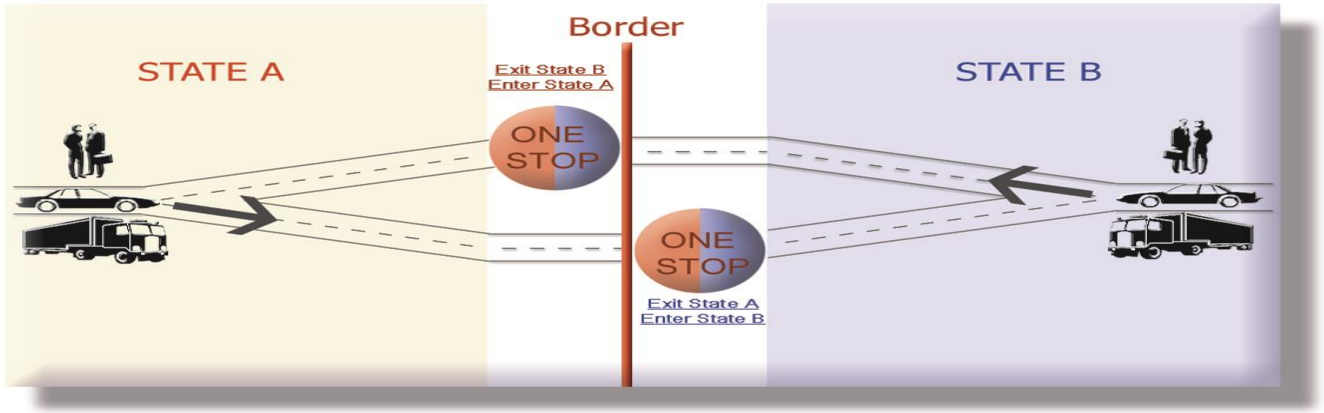


Source: OSBP Source Book, 2011

Figure 2: Single country border post

The second type of an OSBP is what the Source Book (2011) describes as single country where a border post is located in one country and houses officers from both countries. The model requires one country to request authority to carry out controls in other country, and sufficient trust and cooperation between the countries to carry out controls. This type of a border post is being applied at Uganda/Malaba border post.

- Juxtaposed Border Post



Source: OSBP Source Book, 2011

Figure 3: Juxtaposed border post

The third type of an OSBP is the Juxtaposed Border Post that the Source Book describes as a border post that is built in both countries where facilities already exist or where a river or natural barrier forms the boundary. The model allows national laws on both sides to carry out joint controls and hosting of foreign officials. It was built at Malaba (road border), Namanga and Rusumo in East Africa.

The economic benefits of an OSBP include, amongst others:

- *Reduced Waiting times at the border*

Barka (2012) stated that an evaluation of Chirundu One Stop Border Post showed that the time taken by a truck to cross the border was reduced to just two hours from 2–3 days, and the fast-track preclearance process took only 15 minutes. Pearson and Chaitezvi (2012) further stated that at Chirundu the clearance times for passengers on 76-seater buses reduced from roughly six hours to less than two hours.

- *Reduced Transaction Costs*

Kieck (2011) indicated that long delays in processing commercial vehicles at border posts significantly increase the cost of consumer goods. High transport costs needlessly increase the price of imported goods and put exports at a competitive disadvantage in world markets. Hummels and Schaur (2009) argue that each day saved in shipping time for manufactured goods is worth 0.8 percent of the goods' total value.

- *Increased Government Revenue*

UNCTAD quoted in Barka (2012) asserted that the streamlining of administrative procedures and the introduction of computerized Customs management systems would reduce officials' workload and therefore liberate the human resources for other activities. The OECD (2011) also stated that the introduction of an OSBP resulted in greater tax compliance and this was in reference to the reduction in smuggling at the Chirundu Border post.

- *Reduction in Fraud and Corruption*

The OECD (2011) further asserted that in Chirundu the OSBP contributed to the reduction of fraud due to more thorough checks, using scanners and joint inspections, based on risk profiles backed by collaboration and sharing of information among the two countries' border agencies. Zanowiecki (2011) postulated the same argument and stated that shorter delays at a border post would reduce the advent of petty corruption, such as bribing, to jump the queue.

- *Economies of Scale in Resources*

An OSBP can also bring saving through economies of scale in resources as Aniszweski (2009) stated, it brings about saving from common ICT systems, pooling of resources and human resources training. Trademark East Africa (2012) also posits this view and says ICT reduces border-related administrative costs, labour costs, improve customer satisfaction, allow longer service hours and consequently reduce inventory requirements.

- *Job creation and growth*

Barka (2012) contended that empirical evidence suggested that increased trade volumes and reduced prices of goods would lead to higher demands by consumers, thereby stimulating the economy and the jobs market. This was in light of envisaged increased volumes of traffic with the introduction of an OSBP. On the social benefits, the establishment an OSBP contributed to the reduction of infections of HIV/AIDS since truck drivers and the community (sex workers) would have less time to spend at the border.

2.8 Benchmarking – Chirundu Border Post

Curtis (2009) mentioned that the Chirundu and Beitbridge Border posts were the busiest border posts on the North South Corridor. However, there were inherent delays at both border posts with a truck on average taking 39 hours at the border north bound and 14 hours south bound. The Department for International Development (DFID) attributed the delays to duplication of procedures on both sides of the border and that there were about 15 different agencies needed to clear a truck at Chirundu.

In December 2009, the Chirundu OSBP was commissioned and Trademark Southern Africa (2011), pronounced it as the first OSBP in Africa. Trademark Southern Africa (2011) continues to state that the introduction of the OSBP resulted in improvements in waiting times at the border post. Barka (2012) expressed the same views as Trademark Southern Africa and stated that the time it took for a truck to cross the border at Chirundu was reduced from two to three days, to only two hours with the introduction of an OSBP.

2.9 Conclusion

The literature review objective was to expound more on the problem of delays and problems at border posts, and to place the problem in context with other studies and literature both locally and internationally. It is now clear, that there is no major theory on borders and the literature itself is evolving to include the technological changes and other realities of transnational crossing. The literature review also showed that the studies of the borders and boundaries were a phenomenon of the last three decades and that prior to that not much had been done to study the phenomenon. It shows that from 1981, when a more pronounced study of borders was conducted, there was no theory to explain the border and boundary phenomenon. It had been viewed as a multi-disciplinary issue where the different disciplines borrowed each other terminologies.

It was Brunett- Jailly (2005) who proposed what is now called the Border theory and in his proposal, attempts to define issues that make up a border as individuals, laws and processes that shape a border post. But it is clear that any one single attempt at actually identifying a theory of border clearly removes other characteristics of border from the domain of the discourse. This dissertation focused mainly on the processes and how they impacted on delays at the border, and the impact of such delays. The literature review then focused on contemporary issues on borders around the world and some of the issues identified were divided into infrastructural and institutional issues. This section also highlighted the impact of the delays on the communities and truckers of delays at the borders post. Literature also showed smuggling, uncertainty and lack of inland clearing facilities at most border areas as major problems. In order to contextualize the problem to Beitbridge, therefore, the literature review focused on some of the documented problems at Beitbridge.

3 Research Design and Methodology

3.1 Research Approach and Strategy

This research employed an inductive approach to the study which, according to Saunders et.al (2003), allows the researcher to build a theory after collecting data. This was differentiated from deductive approach where the researcher developed a hypothesis and then collected data to test the hypothesis. The inductive approach was associated with qualitative research and conclusions were derived from empirical observations (Bryman & Bell, 2011). The investigation of problems and solutions at the Beitbridge Border Post was an exploratory study which, according to Creswell (2003), required an inductive approach since the inductive lent itself to an emergent theory. Being an exploratory study, therefore the research used a qualitative research strategy which allowed the researcher to have a complex understanding of issues (Creswell et.al, 2007) that contribute to delays at the border post and to allow stakeholders and customers to express their opinions on the introduction of an OSBP. Also indicated in the literature, in order to move beyond the binary focus, as in previous studies of top-down approach to borders, it is important to focus on the individual border narratives and experiences in terms of their impact on daily lives as a way of positioning an agenda for the next generation of border-related researchers. The qualitative strategy therefore did just that by allowing the research to examine the respondents in their natural setting through lenses of approach to enquire such a narrative research, phenomenology, grounded theory, ethnography and case studies (Creswell, 2007).

3.2 Research Design

This research used a case study research design which is defined as "an empirical inquiry about a contemporary phenomenon (e.g. a "case"), set within its real-world context—especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2009, pp. 18). This design was used because it was the most appropriate since the research question was descriptive and explanatory in nature with the former trying to check what was happening at border posts, whilst the latter tried to explain why it happening (Yin, 2009). Yin (2009) went on further to say the case study research design was most appropriate when data needed to be collected in its natural setting than when the researcher would have

no control over events. A longitudinal study could also have been used but availability of data pertaining to two countries (Zimbabwe and South Africa) could have been difficult to collect because of admin and legislative barriers.

3.3 Data Collection

The data was collected from secondary and primary sources. The dissertation employed qualitative data collection methods.

3.3.1 Secondary Data

In order to conduct an analysis of processes and procedures, the dissertation collected secondary data from the following documents:

- Kyoto Protocol documents on trade facilitation;
- Chirundu Border post reports and trade documents;
- Case studies of other OSBP or Coordinated Border Management;
- Beitbridge Border post traffic report;
- Trademark Southern Africa reports; and
- Other archival records.

3.3.2 Primary Data

The primary data was collected using in-depth interviews (open ended interviews), direct observations, participant observations and group interviews.

3.3.2.1 In-depth Interviews

The in-depth interviews enabled the study to understand current bottlenecks and problems associated with the procedures and processes at the border. The open ended interviews were conducted with pedestrians, truck drivers and representatives of the agencies operating at the border post. This allowed the researcher to acquire a stakeholder perspective into the issues at

the border post and to obtain stakeholder opinions and perceptions on the proposition of the OSBP as a solution to the problems at the border.

3.3.2.2 Direct Observations

The researcher took notes on the behaviour of individuals and vehicles at the research sites (Creswell, 2007), and used a checklist to record different phenomena. In this study observations were used to observe complex interactions with the social setting at the border post and identified possible contributors to delays.

3.3.2.3 Group Interviews

In these methods, subjects were brought together as a group to discuss issues about the topic which was slightly different from focus groups because it comprised of smaller numbers of about three individuals of a homogenous nature. These were used since they are important when data was collected on collective views, along with the meaning behind those views (Gill et.al, 2008). Group interviews were held with truckers and passengers who were present at the border post at any particular time. The group interviews employed a semi-structured guide and a recording device and notes were taken by the researcher.

3.4 Sampling

This section documents how the researcher derived a sample that represented the target population.

3.4.1 Sampling Frame

The sampling frame comprised of major agencies that operate at the Beitbridge Border Post both on the Zimbabwean and South African sides, and Truckers and individuals crossing the border at the time of the research. The sampling frame of truckers and individuals comprised

of those that were enroute to Zimbabwe (both on the South African and Zimbabwean sides), and those enroute to South Africa (both on Zimbabwean to South African sides).

3.4.2 Units of analysis

The units of analysis for this dissertation were documents collected agency representatives, truckers, passengers on buses, passengers in motor vehicles and pedestrians.

3.4.3 Sampling Technique

The dissertation used a non-probability sampling technique to select respondents for the interviews and for the group interviews. To select individuals and truckers for group interviews a purposive sampling technique was employed, which according to Maxwell (1997) as quoted in Teddlie and Yu (2007) as a "technique in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten, as well from other choices'' (p. 87).

As already stated previously data was collected through group interviews with truckers and individuals crossing the border and in-depth interviews with major border agencies. In selecting respondents for the in-depth interviews the researcher used snowball sampling which according to Gallardo (2012) is a method where the researcher asked study participants to make referrals to other potential participants, who in turn make referrals to other participants, and so on. This was particularly important for this study in order to identify other important agencies at a border post that the researcher could interview. The number and types of agencies at border post varied from border to border.

3.4.4 Sample Size

The following sample size was used based on the budget and information needs of the study.

Table 1: Sample of In-depth interviews

Respondent/s	South African Side	Zimbabwean Side
SARS / ZIMRA	1	1
FESARTA	1	1
Trademark SA	1	1
Total	**3**	**3**

Table 2: Sample of Group Interviews

Group Interviews		
	South African Side	**Zimbabwean Side**
Individuals	5	5
Drivers	4	5
Total	**9**	**10**

3.5 Research Criteria

The research met the following trustworthiness criteria:

Credibility – through the process of triangulation which is the use of different methods in concert, the study canceled out their individual limitations (Shenton, 2004). Furthermore in collecting data from the respondents the researcher gave the right to the subjects to refuse participation and thus ensured that each respondent was given a chance to offer data freely;

Transferability - "is concerned with the extent to which the findings of one study can be applied to other situations" (Merriam, 1998). The researcher attempted to identify as much as possible of the contextual factors relating to the study in order to allow readers to determine the transferability of the findings in similar contexts. Shenton (2004) identifies the following issues that were stated by this research to ensure transferability:

- Number of organisations taking part in the study and where they are based;
- Any restrictions in the type of people who contributed data;

- Number of participants involved in the fieldwork;
- Data collection methods that were employed;
- Number and length of the data collection sessions; and
- Time period over which the data was collected.

Dependability and *conformability*– Dependability and conformability was about ensuring that the study used acceptable research methodologies and techniques and if similar work was to be conducted in another setting, used the same tools where the results would be similar. Moreover, conformability ensured that the results of the study fully reflect the views of the respondent. This study ensured both these phenomena through using tested research design and triangulation as a way of confirming responded views. Furthermore given the subjective nature of qualitative analysis the researcher used an independent analyst to avoid biasness.

3.5.1 Data Analysis

The technique that was used to analyse the data is "contents / thematic analysis", as prescribed by Boyatzis (1998) and as adopted by Braun and Clarke (2006). Thematic analysis is the process of encoding qualitative information using a list of themes, indicators and qualifications that are related (Boyatzis, 1998; Braun and Clark, 2006).

3.5.2 Coding of Data

The first thing in thematic analysis is the transcribing of text and then coding of data by reading the transcribed interviews line by line. During this process the analyst read the data carefully line by line in order to classify it into meaningful statistical units. The coding of data employed an inductive approach to data coding which is a bottom up form of coding, where the identified themes were closely related to the data. This type of coding did not take into account the theory that was studied, or the preconceived ideas of the researcher.

After coding, the information was captured in MS Excel to enable the researcher to quantify some of the issues which would identify major variables in the discussion through the frequency of their appearance.

3.5.3 Mind Maps

Mind maps were employed in the study; these were first designed by Tony Buzan in 1976 (Mier, 2007). Mind maps allowed the researcher to visually represent information from the interviews in an interesting format without limits of formal written text.

3.5.4 Thematic Interpretation

The interpretation of the data involved in analysing the specifics of the themes to draw an overall story and relate it back to research questions and literature.

3.6 Research Limitations

As with every research, this research has its limitations. The Beitbridge Border Post is an access controlled area which resulted in the collection of data only being taken from the South African side. Two groups of participants were interviewed, those who crossed the border from the Zimbabwean side to the South African side, and those who were about to cross the border from the South African side to the Zimbabwean side.

Interviews and observations lasted for five days, and it was for this reason that it was difficult to show a true reflection of the status quo of the Beitbridge Border Post. A longer period of observation would have provided more insights, giving a more holistic idea of the situation.

As there were many stakeholders involved at the Beitbridge Border Post, the research was dependent on participant's perceptions, attitudes and beliefs, and therefore it was considered difficult to interpret the results. The research findings were impacted by the fact that the researcher is a civil servant and this may have influenced the openness of the responses from the interviewees, although consent was granted by the interviewees, the researchers has no clear evidence to suggest that this was indeed the case. Some participants thought they were being investigated and were therefore not comfortable in answering some of the questions. Since the researcher was a South African, she was accompanied by one of the Zimbabwean nationals to the border to give participants confidence in answering questions.

In conducting the study, the researcher encountered challenges in accessing previously conducted literature and peer-reviewed scholarly articles on border processes and procedures at the Beitbridge Border Post. The researcher used articles from other border posts (such as Chirundu) in the region to highlight institutional and infrastructural factors that cause delays at the border.

4 Findings

4.1 Profile of respondents

4.1.1 Individuals

The researcher conducted group interviews with individuals who were crossing in buses, motor vehicles, and pedestrians. A total of 27 individuals participated in the interviews. The table below shows the number of individuals who participated in each group interview:

Table 3: Participant in individual group interviews

Interview	Number of Participants	Side of Border Discussed
1 to 5	14	South African Side
6 to 10	13	Zimbabwean Side

4.1.2 Truckers

Group interviews were also conducted with truck drivers. A total of nine groups of interviews were conducted with each group being a minimum of two drivers and a maximum of three drivers. The table below indicates the number of truckers on the Zimbabwean and the South African side.

Table 4: Participant in Truckers Group Interview

Interview	Number of Participants	Side of the Border Discussed
1 to 4	10	South African Side
5 to 9	13	Zimbabwean Side

4.1.3 Agencies

The researcher intended to interview about seven agencies operating at the border but authority was not granted on the basis that the border was a security area. The researcher

managed to obtain an interview with the South African Revenue Services (SARS) which is the lead agency on the South African side. The researcher also managed to acquire interviews with Federation of East and Southern African Road Transport Associations (FESARTA) and Trademark Southern Africa which are organisations that collect data at Beitbridge and act as advisors on trade issues. The table below shows the key informant interviews carried out.

Table 5: Agencies Interviewed at the Border

Agency	Number of Interviews	Side of the Border Discussed
SARS	1	South African Side
FESARTA	1	South African Side
Trademark SA	1	South African Side

4.2 Agencies

The researcher conducted in-depth interviews with key informants from major stakeholder agencies involved in Beitbridge border activities. The purpose of the interviews were to understand, from a stakeholder perspective, what their perceptions were as to what caused delays at the border post and what solutions they would propose.

4.2.1 Institutional problems causing delays at the border

Resistance to procedures – some of the delays that are still being experienced on the South African side of the border for truckers are because truckers are failing to embrace the modernised system and these trucks still travel to the border without first receiving the 'proceed to the border notification'.

Rate of release by Zimbabwe – For a truck to be released on the South African side, there has to be a notification to that effect from the Zimbabwean side. If the rate of release on the Zimbabwean is slow, then the rate of release on the South African side is also affected.

Queue at the gate – Some truckers do not follow procedure; they just go and queue towards the border gate causing congestion and convergence of traffic at the gate.

Inadequate documentation – Some agencies attributed delays at the border post to inadequate documentation by some travellers which meant that queues stop while officers explain aspects to travellers. This indicated a need for better communication when regulations change so that people are not caught unaware.

4.2.2 Infrastructure problems causing delays at the border

The bridge – According to interviews, the usage of a single bridge sometimes causes a bottleneck for traffic travelling northbound especially during the peak periods. Since all traffic converges on one bridge there is bound to be some delays at the gate to the bridge.

Usage of Commercial Area during Peak Periods – The agencies also highlighted that the use of the commercial area during periods also posed a challenge and caused delays.

4.2.3 Processes at the border

SARS indicated that they have changed the clearance processes at Beitbridge Border Post to align them with international practices. The modernisation was implemented in February 2012. In the succeeding section the researcher explored the processes prior to the modernisation and processes after modernisation. The researcher then documented the cause of current delays from the perspective of all agencies.

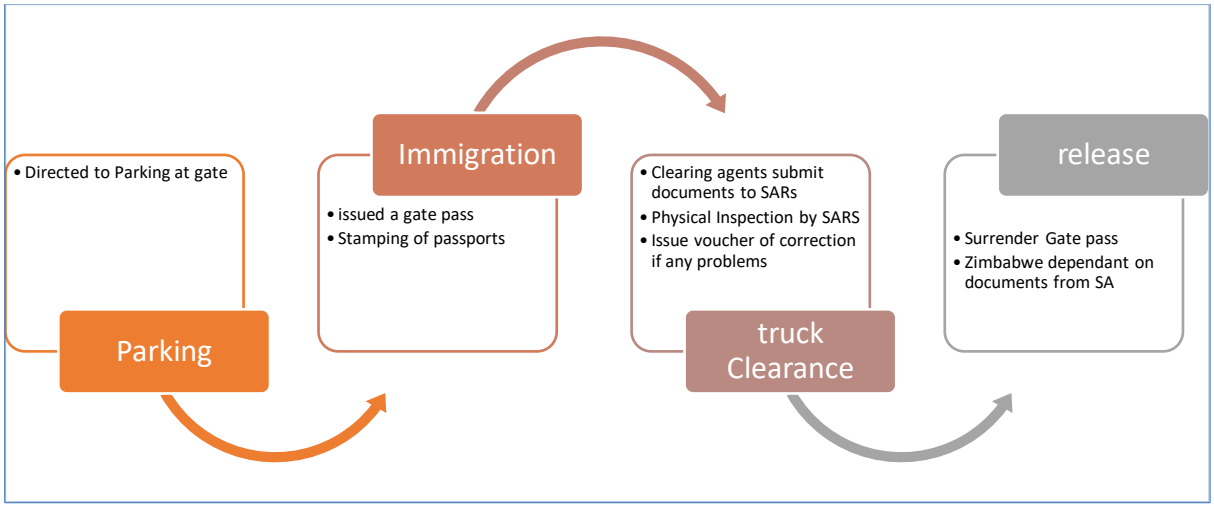


Figure 4: Clearance procedure before modernisation (February 2012)

When trucks arrive at the border, clearing agents take the documents to SARS for checking and Physical Inspection. If there were any problems with the documents SARS would issue a Voucher of Correction (VOC). This would result in a two to four day delay from the time they would arrive at the border, up to the time they'd depart the border area. The time is worse during the weekends when agents are not at work to do the clearing. Trucks carrying exports move faster than those carrying imports because most exported goods are finished products. Imported goods take longer because of calculation of duties of mostly raw materials.

Zimbabwe relies on documents from South Africa because they do not have enough resources.

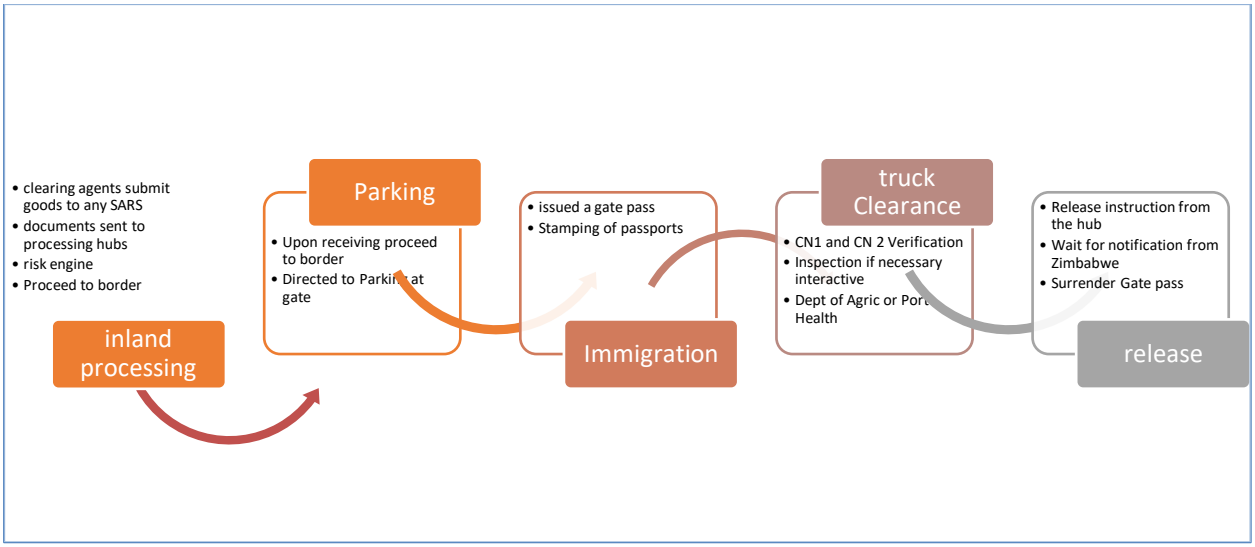


Figure 5: Clearance process post-modernisation (February 2012)

Internal processing hubs were introduced in Groenkloof, Alberton, Cape Town and Durban. The purpose of the hubs was to reduce collusion and corruption between agents and SARS officers at the border. At the hubs, there is no contact between the processing SARS official and the clearing agents. The hubs also reduced the need of data capturers at the bridge and there has been a movement away from manual declarations to electronic declarations. Everything is uploaded into a custom system. A risk engine was also created which classifies and selects risky consignments, resulting in high risk clients less likely to go through the green route. Payments are no longer limited to the customs office at the border but can now be made at any customs office. The client would be issued with a 'proceed to border'; at the border the client would be required to produce their manifesto, which shows a 'proceed to border' instruction.

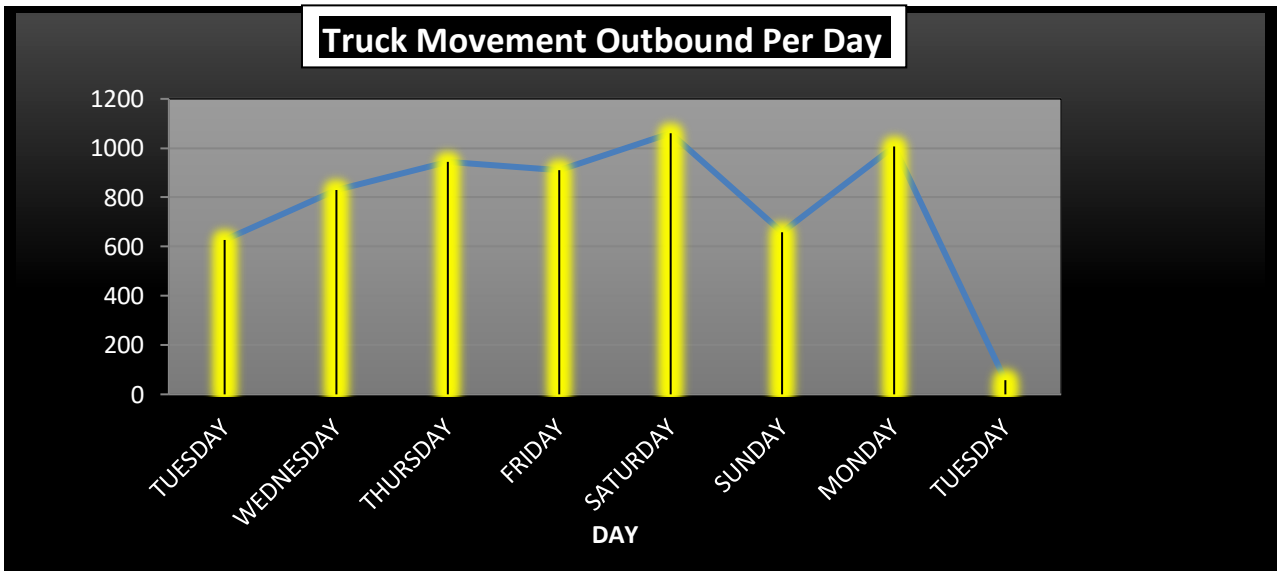
Other agencies that SARS need to consult are Port Health and the Department of Agriculture. If a trucker required clearance from any of these agencies, SARS issues a conditional bar coded document release to reduce fraud and make sure that inspectors at the border could easily communicate with officers at the clearing hub. On average, 20 per cent of freight requires inspections, otherwise the majority travel through the green route. All inspectors at the border were issued with iPods to scan documents and take all the information that they see on the goods being inspected. The release instruction is now being issued at the hub and not by the inspectors. There is an interactive process between the hub and the inspector.

The inspection finalization officers send all information about the goods they inspected to the hub, after which a message is sent to the clients. SARS also introduced dog units in order to facilitate quicker detection of contraband. SARS major role at the border is to reduce smuggling and non-declaration. Turnaround time has since been reduced at the border to around two hours from gate to release.

4.2.4 Traffic flows at the border

The type of traffic that is evident at the Beitbridge Border Post as pointed out by the border agencies are motor vehicles, buses, trucks, taxis and pedestrians. SARS estimates that on the South African side of the Beitbridge border, the number of trucks that cross the border outbound per day is estimated at 600 to 800, with inbound estimated at 200 trucks per day.

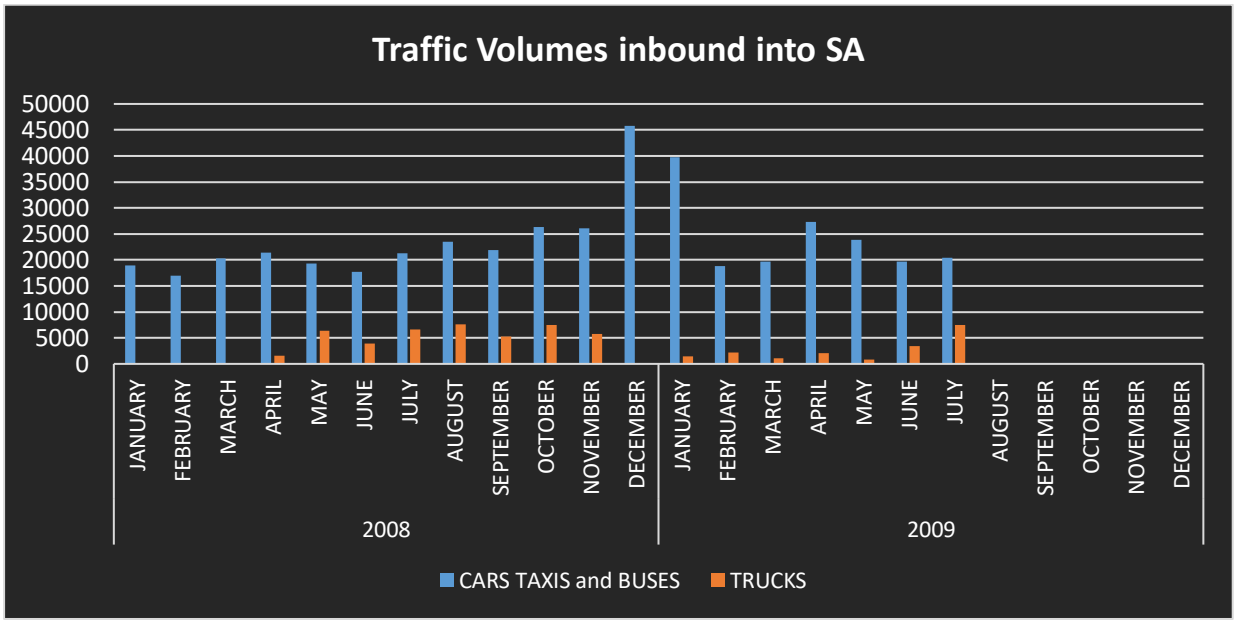
These figures were confirmed by FESARTA using data they collected in 2012. Figure 6 below, shows the daily averages of trucks crossing Beitbridge over a seven day period. Figure 6 also shows the average daily outbound truck movement between 600 to 800 trucks.



Source: FESARTA

Figure 6: Truck Movement Outbound Per Day

During the interviews, the researcher also sought to observe how traffic flowed across holiday seasons and how the seasonality could cause delays. Data collected by FESARTA at Beitbridge during 2008 and 2009 showed a pattern on the seasonality of the traffic flows at Beitbridge. The data collected was for trucks, buses, cars and taxis. The figures (7 and 8) below, provides a synopsis of the seasonality of traffic flows at Beitbridge.

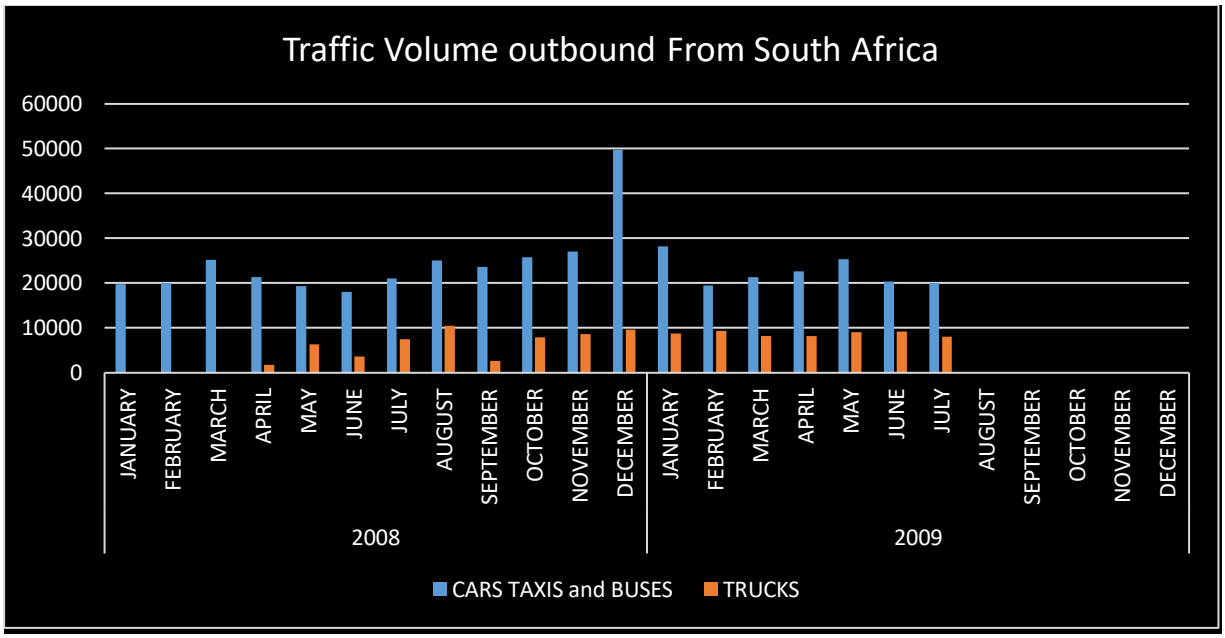


Source: FESARTA

Figure 7: Seasonality of inbound traffic at Beitbridge

It was evident, from figure 7 above, that peak traffic periods for other traffic, beside trucks, is during December and January as this is the time when people from countries north of South Africa go through the Beitbridge Border Post for holidays and to purchase Christmas items. This is in contrast to the number of trucks that are inbound during the same period because most of the primary production industries in those countries would have shut down and there would be few imports for South Africa during that time.

Figure 8 below, shows seasonality traffic flows for outbound during the same period.



Source: FESARTA

Figure 8: Seasonality Traffic volume outbound from South Africa

Figure 8, also shows that contrary to low truck volumes during December and January inbound, on the outbound truck volumes actually increase during this time. SARS attributed the increase in trucks during this period to be as a result of the fact that South Africa exports mainly finished products that other countries would consume during the period. The impact of such high traffic volumes during peak periods like these was likely to cause delays both for the trucks and other traffic too. Such delays were experienced mainly on the Immigration side on the South African side.

4.2.5 Daily averages of Traffic Type

With data provided by FESARTA it was evident that most of the traffic per day was south bound for passengers and small scale traders as shown in the table 6 below.

Table 6: Daily traffic averages for passengers and small scale traders

	North	South	Total
Passenger:			
Cars, bakkies	6527	6031	12558
Minibus	78	207	285
Passenger / tourist bus	36	57	93
Small scale traders:			
Cars, bakkies	42	56	98
Minibuses	7	23	30
Trader bus	14	33	47

Source: FESARTA

On the other hand, however, these daily averages showed that there was more traffic southbound for the trucks compared to northbound. These figures confirmed SARS figures that there were more trucks southbound because South Africa exports more than it imports from the region.

Table 7 below, shows the daily average traffic flows

Table 7: Daily traffic average traffic flows of Trucks

	North	South	Total
Tankers:			
Hazardous	1663	1279	2942
Non-hazardous	20	13	33
Container vehicle:			
1x40ft	1050	1103	2153
1x40ft+20ft	119	117	236
1x20ft	429	427	856
3x20ft	0	0	0
Refrigerated	**37**	**14**	**51**
Heavy Trucks:			
Breakbulk	420	406	826
Consolidated	37	19	56
Unknown	24	25	49
Empty	138	71	209
Medium Trucks:			
Breakbulk	67	41	108
consolidated	12	8	20
Unknown	11	11	22
Empty	74	50	124
Light trucks:			
Breakbulk	15	25	40
Consolidated	0	0	0
Unknown	15	26	41
Empty	**89**	**66**	**155**
Car Carriers	**8**	**22**	**30**
Abnormal / other	**15**	**30**	**45**

Source: FESARTA

4.3 Individuals

During the group interviews, travellers who were individuals travelling by bus or using private vehicles and pedestrians were interviewed. They were interviewed in groups of two. As already pointed out in the previous section there were in total ten group interviews conducted. These interviews were meant to understand their perception on the cause(s) of delays at the border.

4.3.1 Problems causing delays at the border

The mind map (figure 9) below is a graphical representation of some of the problems experienced by the individuals crossing Beitbridge by bus or motor vehicles and pedestrians.

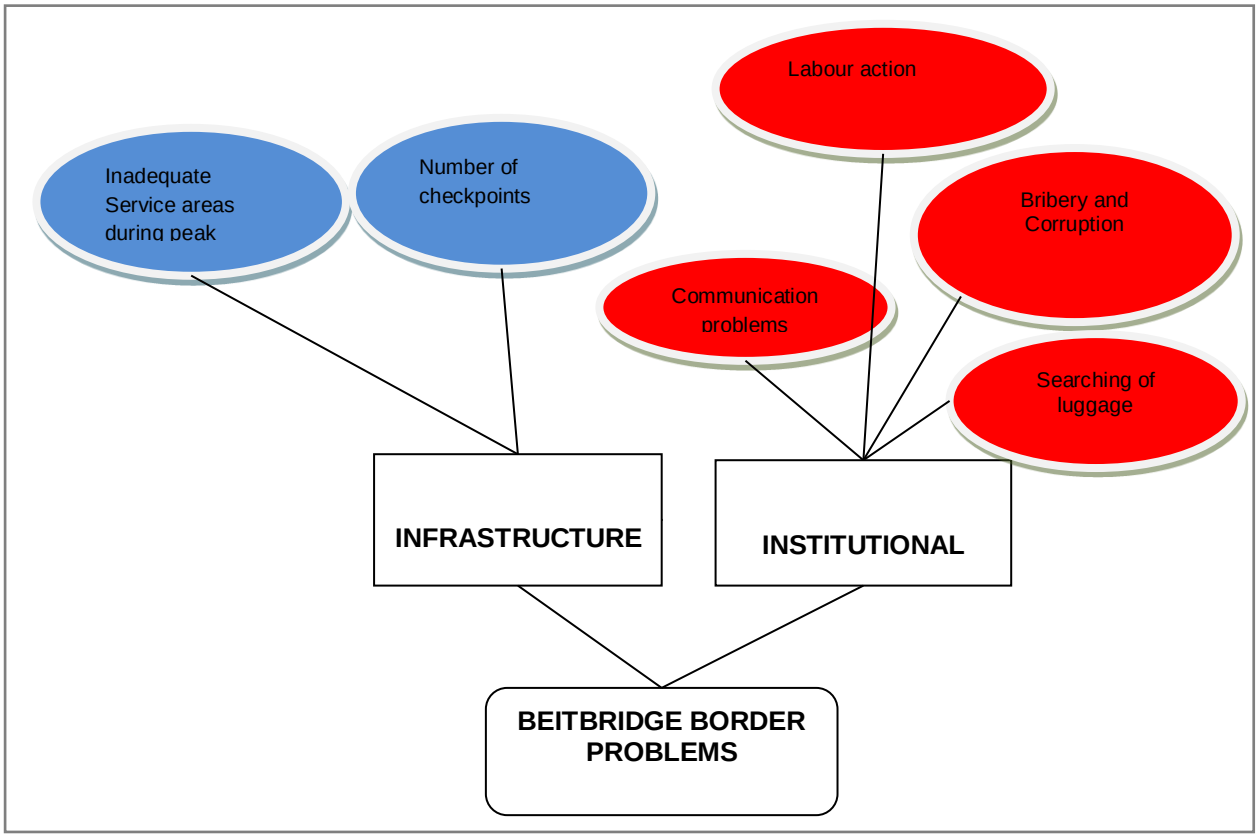


Figure 9: Mind Map of problems at Beitbridge Border Post

Searching of luggage - During the group interviews, individuals suggested that the searching of every item of luggage by customs on the Zimbabwean side caused a lot of delays at the

border which resulted in long queues. The individuals also stated that the number of officers inspecting luggage and declaration was usually inadequate especially during peak periods.

The same problem was also found on the South African side when passengers where enroute to South Africa from the Zimbabwean side. Restrictions on agriculture produce by South African authorities' necessitated inspection of luggage by the Department of Agriculture inspectors at the border. Individuals highlighted that this process was time consuming since there are insufficient inspectors conducting the searches, and in the event that there are buses, the queues become too long causing delays even after crossing the border.

Bribery and Corruption – It was also highlighted that as a result of very long queues on the Zimbabwean side, bribery and corruption was rife especially during peak season. Rogue agents operating at the border would solicit bribes from travellers to allow them to jump to the front of the queue, which inherently would cause a bottleneck.

On the South African side, bus passengers stated that bus drivers were the major culprits when it came to corruption since some of them would jump the queues to be served whilst carrying more than one passport. Passengers perceived this to be corrupt. Bus drivers would take passports belonging to passengers who had overstayed their visits, to be stamped by immigration officials in exchange for money. These activities also resulted in bottlenecks.

Labour action – another problem that individuals perceived as causing delays was labour unrest on the South African side by Immigration officers. The individual travellers highlighted that sometimes the queue became very long because the Immigration officers on the South African side would be on strike or on a "go slow", causing the movement of passengers to take longer.

Number of checkpoints – the groups of individual travellers interviewed also expressed concern about the number of passport checkpoints at entry on both sides of the border. The individuals stated when enroute to South Africa the number of passport checkpoints at the border were at the border gate, the immigration office, and by police upon exit, whether by transport or as pedestrian.

The individuals also highlighted that the number of passport checkpoints on the Zimbabwean side was also unnecessarily causing delays. The individuals noted that their passport receives the entry stamp from immigration; they are stopped again by the police to check their

passports. They expressed that in cases where there were buses queues became very long, even after people had completed border procedures.

Compliance disagreements – Individuals also indicated that another problem they encountered on the entry side of the South African border was disagreements between passengers and travellers with Immigration officials over the visibility of passports; overstaying; and children travelling with one parent. The individuals attributed these disagreements partially to lack of information by the passengers, or deliberate efforts to circumvent the laws, or the failure by the Immigration officer to explain compliance issues to the travellers.

On the Zimbabwean side, non-compliance arguments and delays were mainly linked to issues of non- or under-declaration of goods which could cause delays for other passengers especially those travelling by bus since the bus would wait for the undeclared passenger.

Communication – Language barriers sometimes would cause delays at the border.

Poor Infrastructure and Lack of Supervision – Some individuals also attributed poor infrastructure and inadequate supervision as contributors to delays at the border. The individuals stated that the lack of supervision on both sides of the border gave room for some officials lazing at work even though there were people to be served.

Buses – The individual travellers also highlighted that buses caused delays at the border because when they get to the border their drivers would facilitate their passengers to jump the queue. Buses carrying illegal immigrants also caused delays as they could be stopped several times by police.

4.3.2 Time taken at Immigration and Customs

The group was also requested to give estimates of time spent on the main procedures at the Beitbridge Border Post. The identified procedures were Customs and Immigration. The groups were asked to look at the maximum time spent on both the Zimbabwean and South African sides. Figure 10 below, shows estimated times that the groups agreed they spent on the two different borders during peak and off peak periods.

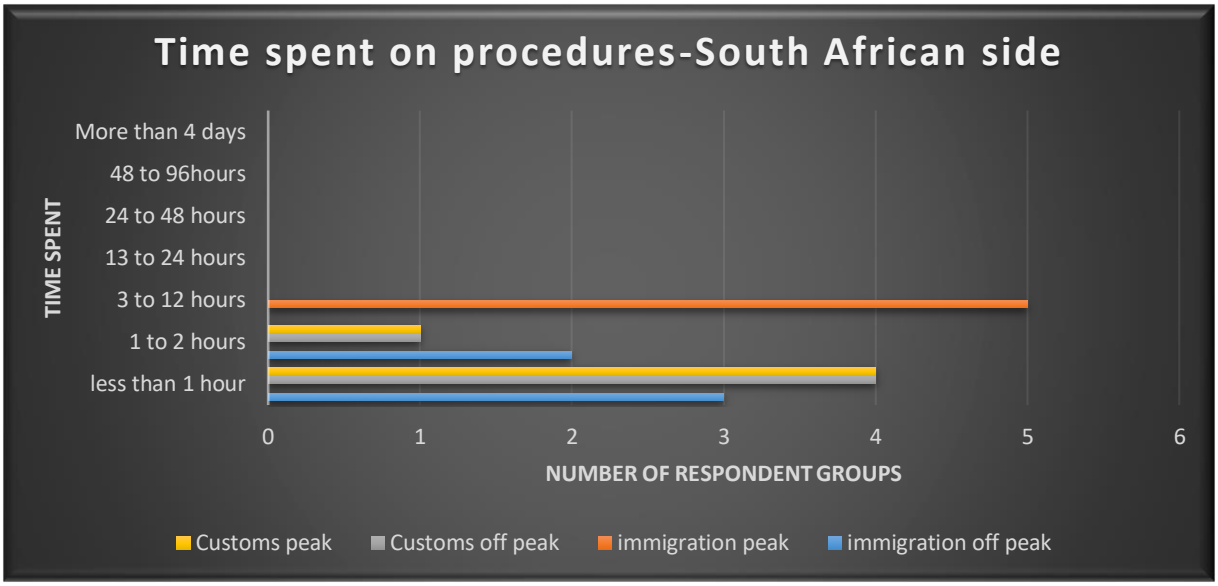


Figure 10: Time spent on procedures on the South African side

From figure 10 above, it was noted that most of the groups' respondents were of the opinion that during peak period, most delays were on the South African side where it would take travellers up to 12 hours to be served at Immigration. On the other hand, respondents indicated that on the South African side, there were no major delays during off peak despite two groups stating that Immigration during off peak could take between one to two hours.

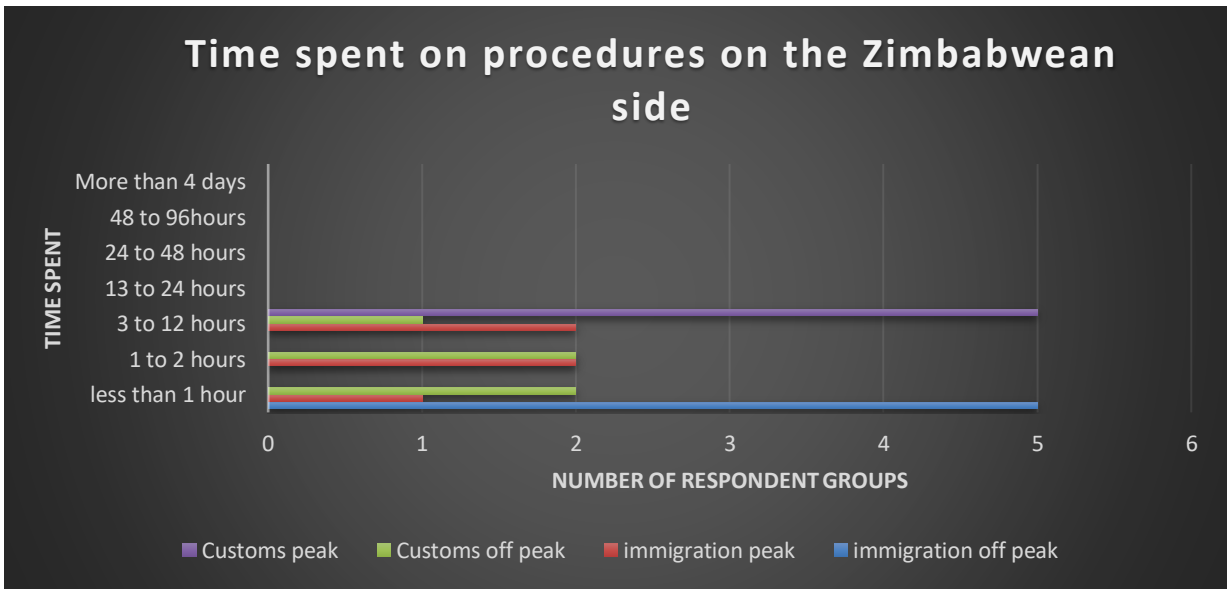


Figure 11: Time spent on procedures on the Zimbabwean side

Figure 11 above, shows a contrast of perceptions on the procedures that cause delays on the Zimbabwean side, the figure (8) also shows that the five groups that were interviewed about their experiences on the Zimbabwean side of the border, were of the opinion that the major cause of delays was at Customs. All five groups were of the opinion that it took Customs about three to twelve hours to process on the Zimbabwean side during peak periods.

4.3.3 Delays caused by type of traffic and luggage

The individual traveller group respondents stated that the type of traffic at the border were motor vehicles, pedestrians, buses, bicycles, Malayitshas (small pick-up vehicles that carry cargo), motor bikes and cross border traders. The group of respondents felt that most of the traffic delays at the border were caused by buses since they carry more people. On the other hand, the individuals also felt that Malayitshas also caused delays at the border since they would bribe officers who in turn would then neglect other passengers to serve them first.

Some of the delays at the borders were attributed to the following type of luggage:

- Liquor and cigarettes (because they are prohibited or controlled);
- Eggs into Zimbabwe (agricultural products);
- Clothing for commercial purposes (Zimbabwe charges duty); and
- Goods worth more than USD300 equivalent.

Delays were said to result when some people tried not to declare some of the above goods and concealed them in an attempt to smuggle them through the border.

Figure 12: Copper smuggled at the Beitbridge Border Post

In figure 12, there is evidence of smuggling at work where the culprit attempted to smuggle copper wires through the Beitbridge Border Post by concealing it in a spare tyre and rim.

4.3.4 Procedures that are duplicated

The individual traveller groups' discussion participants felt that the searching of passports was too much of a duplicated task since passports are checked at the gate, by immigration and by police upon exit from the border. The travellers proposed that a single checkpoint be conducted with random searches only when the need arose. The individual traveller group also felt that it was not always necessary to search small bags.

4.4 Truckers

During group interviews, the researcher sought to understand the perceptions of the truckers about the problems they faced at the border post. As already done in the individuals' report these problems were divided into institutional and infrastructure problems.

4.4.1 Institutional problems causing delays at the border

New System – with the introduction of a new system which was introduced in 2012 trucks are forced into trucks stops which are very expensive with some costing about R25 per hour. The truck stops are not only expensive but the border area is very hot and is infested with mosquitoes and other insects. The system also necessitated truckers to park in queues on approach to the border once they receive their notifications to proceed to the border.

Access to Clearing Agents – With the introduction of truck stops outside the South African side border area, the distance between agents and the truck stops is considerably long, causing truck drivers to walk a distance to find clearing agents which in turn would cause a delay in crossing to the other side.

Department of Agriculture - On the South African side, truckers stated that if agricultural goods are being transported, the truck has to go through the Department of Agriculture for

further inspection after having initially gone through verification with SARS. The truckers stated that this was a source of delay and the Department of Agriculture should liaise with SARS to conduct joint inspections. Furthermore, it was highlighted that even though the Department of Agriculture worked 24 hours, they only dealt with clearing agents who worked shorter periods. This meant that drivers needed to wait to be served by the Department of Agriculture when the clearing agents were on duty.

Release Procedure – the trucker respondents stated that sometimes the release procedure between Zimbabwe and South Africa is not coordinated leading to jams on the bridge to Zimbabwe in situations when South African Authorities would have released more trucks than Zimbabwe can handle.

Clearance Procedures – On the Zimbabwean side, the trucker respondents stated that the clearance procedure was the same, even for empty trucks. Much time was wasted by empty trucks that were also forced to join the queue. The respondents also stated that the processing time for transit goods was also very long on the Zimbabwean side due to unnecessary delays of obtaining a gate pass stamped by customs even though they would have cleared all procedures.

Absence of a commercial area on the Zimbabwean side – The absence of a commercial area on the Zimbabwean side was cited as the major cause of delays on the Zimbabwean side during peak traffic periods. The truck drivers stated that they were expected to move their trucks along a queue of motor vehicles and at the same time expected to join the Immigration desk. In most cases during this period the Immigration queues were very long. Vehicles also formed queues to get into the border yard.

Truck drivers were expected to join these long queues (Figure 13 below), and were expected to manoeuvre their trucks around the border area to obtain suitable parking space.

Figure 13: Long queues experienced at the border

Truck driver respondent on his experience at the border as follows:

> *"at one time during the Christmas holiday, I was detained because I went and held a place on the queue and went back to move the truck and when I re-joined the Immigration queue, the security came and said I had jumped the queue, an argument ensued and I was detained"*

Unnecessary processes within border – The trucker respondents interviewed also expressed that there were some unnecessary processes that should not be within the border area that actually caused congestion at the border, namely the Vehicle Inspection Department (VID) weighbridge and bilateral permit checkpoints which are found within the border yard on the Zimbabwean side.

Inadequate Supervision – On the South African side, some of the truckers stated that some of the delays were as a result of unmanned Custom desks. One Truck driver stated that in order to obtain a Temporary Import Permit (TIP), it took more than 30 minutes of waiting at Customs.

4.4.2 Infrastructure problems

The bridge – When leaving the South African side for Zimbabwe, there would be congestion at the bridge with traffic coming from different directions within the South African border wanting to exit.

Weighbridge – The respondents stated that the weighbridge at the entrance of the Zimbabwean side was the main cause of traffic congestion coming to South Africa on the bridge and at the gate.

Bad Road – The road within the border yard on the Zimbabwean side had deteriorated to alarming level and trucks spend so much time avoiding big potholes in order to find suitable parking. During interviews, the truck driver respondents spoke of an incident where a loaded truck had overturned while negotiating a pothole within the yard.

Parking- Most truck drivers indicated that there was insufficient parking on both sides of the border. This was due to different agencies releasing trucks at the same time without communicating amongst each other. These trucks end up blocking either side of the border.

4.4.3 Time taken at Immigration and Customs

The truck driver groups were asked to estimate an agreed time that they had spent on the two procedures of Immigration and Customs on both sides of the border. Figure 14 below, indicates the agreed estimated maximum times that the groups on the South African side said they had spent on different procedures at the border. According to Figure 14, the respondents' groups were of the opinion that major delays were experienced at Immigration during peak periods.

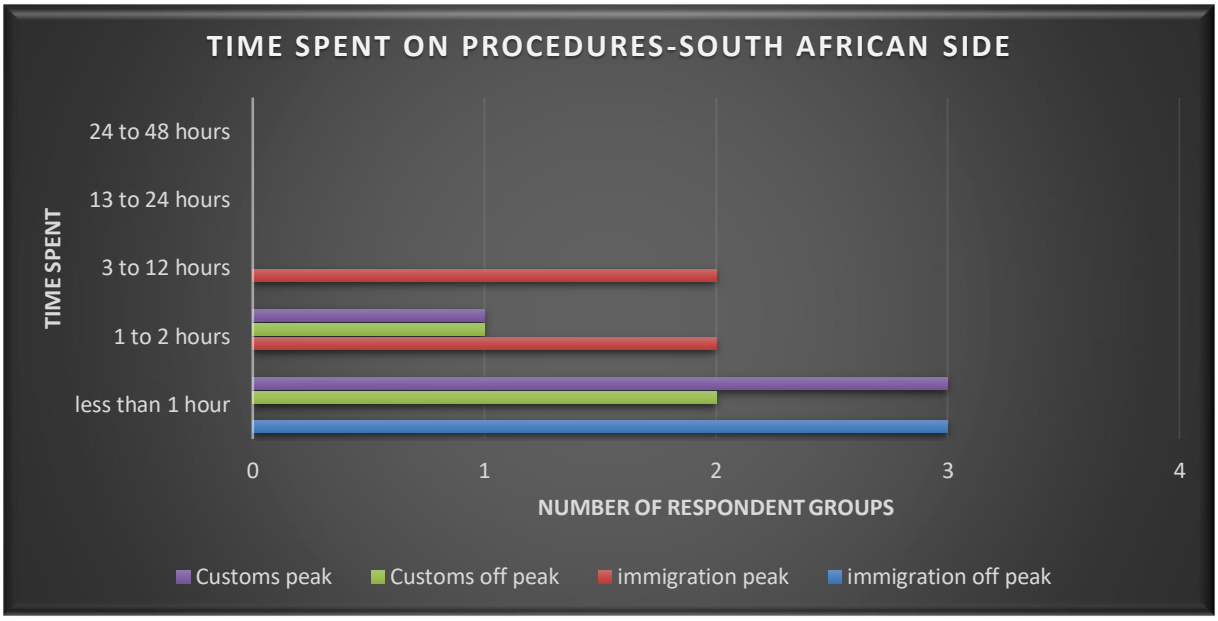


Figure 14: Time spent by trucks on procedures on South African side

Figure 15 below, shows the estimated time spent by group respondents on the Zimbabwean side of the border. From analysing this figure (15), it is clear that on the Zimbabwe side, the truck drivers felt that most delays were experienced at Customs during peak periods. It should however be noted that a particular group stated that during peak periods they had spent more than 24 hours at Immigration which became an outlier.

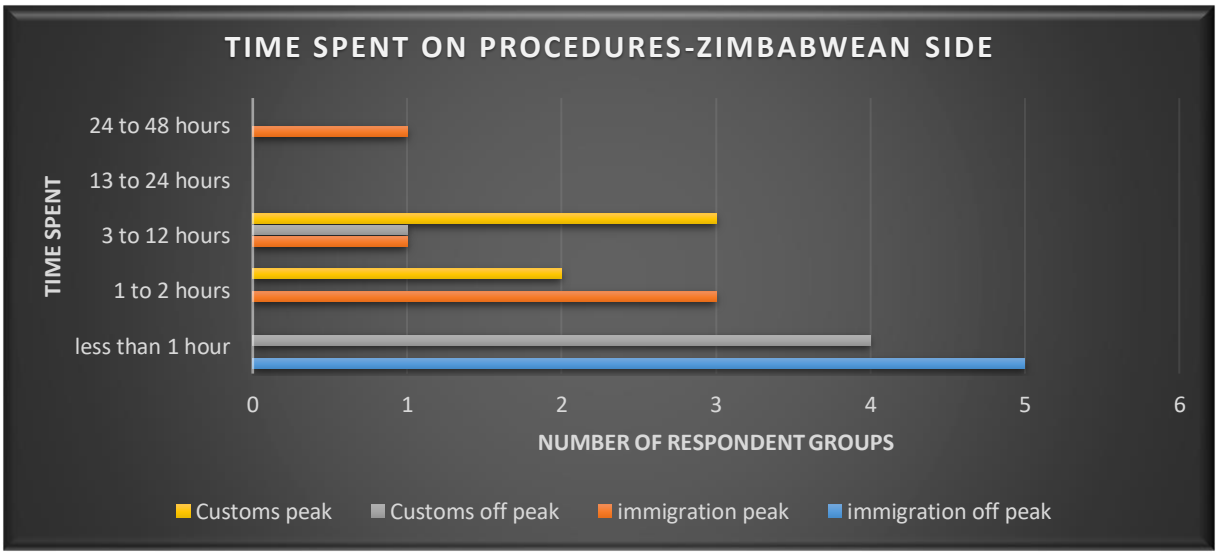


Figure 15: Time spent by truck on procedures on the Zimbabwean side

4.4.4 Processes at the border

The truckers stated that since 2012, processes on the South African side of the border had greatly improved in terms of time taken to cross the border. They stated that now they spend less time at the South African border. On the other hand problems were rampant on the Zimbabwean side where a truck could stay up to four days within the border area. Figures 16 and 17 below, represent processes described by the truck drives within the two border areas.

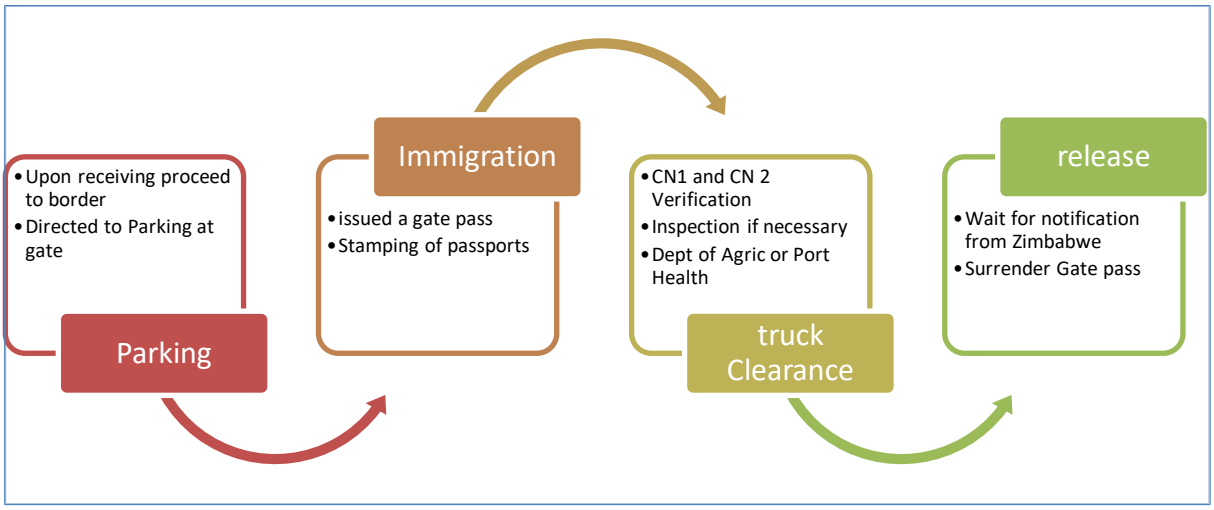


Figure 16: Truck clearance procedure on the South African side

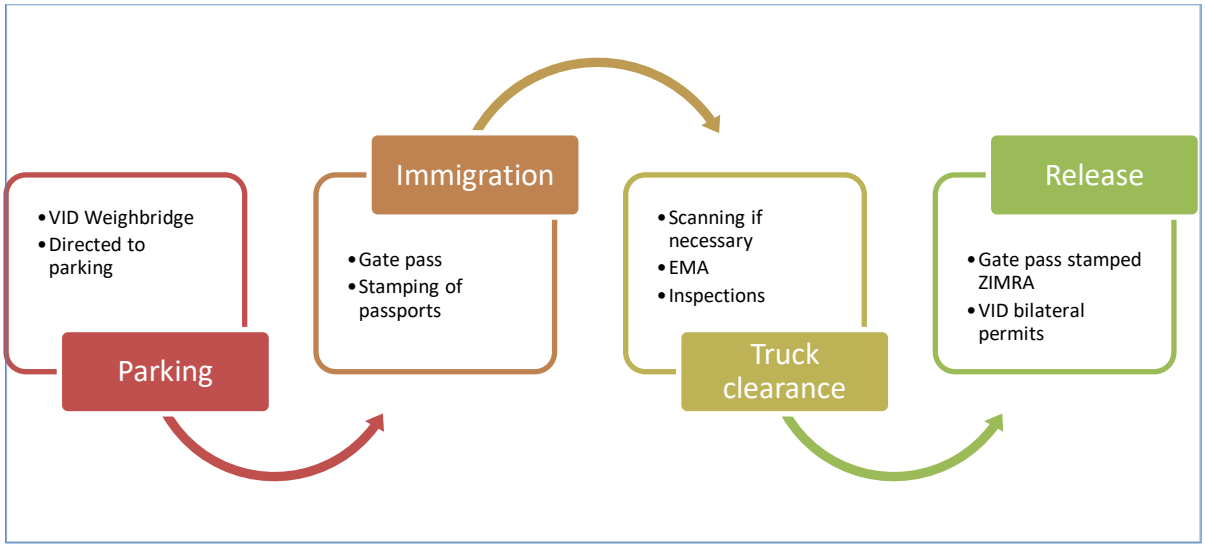


Figure 17: Truck clearance procedures on the Zimbabwean side

From the two figures (16 and 17), it is evident that the scanning of cargo was selective on the South African side, whereas in Zimbabwe it was compulsory.

4.4.5 Delays caused by type of traffic and cargo

The types of other traffic that truckers said they met at the border were pedestrians, motor vehicles, buses, and Malayitshas. On the South African side, however, truckers stated that due to a designated commercial area they rarely mix with other traffic except during peak periods when buses are redirected to the Commercial area.

Figure 18: Other forms of Traffic - Malayitshas (left) and Buses (right)

The truckers stated that the impact of other traffic on the time spent at the border is only relevant to the Zimbabwean side where they have to queue with other traffic to go through Immigration. Malayitshas seem to get first preference from Customs because the truckers perceive that officials may have been bribed. Buses on the other hand, would be carrying many passengers and would result in queues being formed upon arrival.

The type of cargo carried also contributed to delays at the border post.

Table 8: Type of Cargo that can cause delays at the border

Type of Cargo	Impact on Time at the Border
High loads	➢ They always had to be scanned, resulting in a queue
Mixed Lines	➢ Had to be cleared per commodity line ➢ In some cases duties would not have been paid for some lines
Plants	➢ Plants would have to be fumigated before a truck proceeds
Dangerous goods (oil)	➢ Dangerous goods had to be escorted on the Zimbabwean side, resulting in the trucker having to wait for the escort to arrive
Abnormal loads	➢ Other trucks had to give way to abnormal loads at the border
Tobacco	➢ The clearance procedures are very rigorous

4.4.6 Procedures that are duplicated

The truckers could not identify many processes that could be conducted at the same time to reduce delays within the border. On the South African side, the truckers felt that the Department of Agriculture should liaise with SARS to conduct inspections at the same time since the cargo manifesto would have been submitted before the trucks had arrived at the border. On the Zimbabwean side, the truckers felt that there was no need for many Vehicle Inspection Department (VID) checkpoints within the border. They were of the view that all processes could be done at the same checkpoint.

5. Discussion

5.1 Introduction

This chapter triangulates the findings from the three groups (Truckers, Agencies and Pedestrians) and compare them with the literature and document review. This enabled the researcher to identify similarities and variances and their implications thereof. This chapter also attempts to illuminate some of the major themes derived from this research.

5.1.1 What institutional problems are evident at the border post?

Taylor et.al, (2004) identify institutional problems at border posts as problems associated processes, procedures and staffing. Major themes that emanated from institutional problems are as follows:

- *Communication Problems*

The agencies perceived that some of the problems that are still being experienced at the Beitbridge Border Post are as a result of ineffective communication between the agencies and the travellers. The travellers also stated that communication was crucial because sometimes there was a language barrier between travellers and agencies. The truckers on the other side arrive at the border before receiving notification and some of the reasons for that might be because of a lack of communication. Taylor et.al (2004) stated that the major problem at a border is uncertainty which increases transaction costs, ineffective communication can thus cause uncertainty and resultantly increase in transaction costs.

- *Multiple Agencies and Checkpoints*

In the literature, Polner (2011) says that the large number of agencies can create delays and bottlenecks which in turn can detract border agencies from achieving their objectives. The trucker respondents highlighted that lack of coordination between agencies at the border (SARS and other Departments) sometimes caused delays. On the Zimbabwean side, the major problems were due to a number of agencies and checkpoints. The individual respondents were of the opinion that the numbers of checkpoints were too many.

- *Inadequate or ineffective supervision*

Some respondents stated that some of the delays were caused by unattended workstations and in some cases some respondents were never served without having to first pay a bribe. The individuals spoke of delays caused by corrupt activities at Immigration between bus drivers and Immigration officials where a bus driver could sometimes illegally get multiple passports stamped on behalf of passengers who overstayed their welcome in the visiting country. Zhangazha (2009) stated that corrupt activities at Beitbridge as mainly as a result of long queues and people forced to pay money to jump queues. Literature does not document the corruption within Immigration counters.

- *Delays at Immigration*

Chiliya et.al (2012) quote Zhangazha (2009) in reference to the Beitbridge Border Post where he indicated that in some cases it would take 12 hours to have a passport stamped at the Beitbridge post. The groups of individuals and truckers interviewed were of the opinion that during peak periods it took between three to twelve hours to obtain an immigration stamp. They however stated that during off peak period this was not the case.

- *Type of Cargo and Luggage*

The truckers felt that the type of cargo that is being transported, for example, mixed lines; high loads, agriculture commodities and dangerous goods also resulted in delays at the border into Zimbabwe. The individuals indicated that if one carried controlled commodities, namely liquor, cigarettes and agricultural products in their luggage, it would cause delays at the border. The agencies however, felt that the major problem was lack of compliance with procedures for example if a trucker followed the procedure of inland clearance there would never be delays.

- *Type of Traffic*

The type of traffic also caused delays with both individuals and truckers unanimously agreeing that buses were the biggest culprits at Immigration. On the Zimbabwean side, the truckers felt that a lack of commercial areas made the problem worse.

5.1.2 What are the current traffic types and volumes at the border post and their impact on time?

The types of traffic evident at the border post were buses, trucks, small motor vehicles, malayitshas and individuals. The respondents unanimously agreed that buses and malayitshas were the biggest culprits in delaying the movement of traffic at the border.

The average number of trucks passing through the Beitbridge Border Post north bound was close to 1 000 trucks per day. On the south bound the number of trucks was less, averaging at about 300 per day. The number of people passing through Immigration during off peak periods were about 8 000, and between 40 000 and 60 000 during peak time.

From the numbers presented at traffic flows it was clear that there were bound to be delays caused by northbound traffic, with delays during the peak periods when traffic was greater.

5.1.3 How can procedures and processes be simplified and harmonised to be in line with international standards?

Literature states that coordinated border management is the solution to many border management problems. According to Polner (2011), the CBM concept has its roots in the revised Kyoto Convention entered into force in 1974 and was revised in 1999, and its main focus was to standardise Customs procedures, introduce ‘juxtaposed office’ and ‘joint controls’ and the enhancement of international cooperation with other Customs administrations. A particular type of border coordination is an OSBP.

The truck respondents felt that the two governments should introduce an OSBP that is used in Chirundu. The agencies on the other side also felt that an OSBP would be a solution to the delays at the Beitbridge Border Post. The Agencies also proposed the Juxtaposed Border Post as the best form of an OSBP which according to an OSBP Source Book (2011) is a border post that is built in both countries and it allows national laws on both sides to carry out joint controls.

5.2 Chapter Summary

This chapter was a presentation of the analysed and interpreted data collected from all respondents. The data shows that there was evidence of institutional and infrastructure problems that cause delays at the Beitbridge Border Post. The agencies on the other hand also added that there was a lack of communication of new procedures.

6 Conclusion and Policy Recommendations

6.1 Conclusion of the Study

The Beitbridge Border Post has the potential to be the trade hub of Africa but perennial delays experienced by both trader and passengers is slowly robbing the border of this potential and is losing business to other borders that have proved to be more efficient.

The major problems identified by this study were of infrastructure and institutional nature. In terms of infrastructure, the study found that differences in systems between the two countries sometimes caused delays for both individuals and truckers. South Africa introduced a new system for inland clearing, which has yet to be implemented by their Zimbabwean counterparts. This has seen trucks moving quicker on the South African side and converging on the Zimbabwe side. Some of the identified infrastructural problems are related to the single bridge that is currently open for traffic but has become inadequate for the amount and value of traffic. The study also found that on both sides of the border there were non-core agents that caused unnecessary delays and could be placed outside the border. The study concluded that the main problem was differences in funding for the maintenance of infrastructure and lack of coordination of the two countries in introducing new systems because of issues of sovereignty.

Institutionally, the study identified issues of duplication of tasks was evident between different agencies at the border post and this was in agreements with Barka (2012) who also said that border procedures in most African countries comprise of two sets of cumbersome clearance procedures with one on each side of the border and that these tend to encourage illicit trade and corruption. The results of the study also stated that the said corruption is not only on the truckers but also on the passengers' side where individual pay corrupt individuals in effort to jump long queues during peak period and facilitate the illegal stamping of passports.

The study concluded that the institutional and infrastructure problems experienced in Beitbridge were not peculiar to that border post but resembled other border posts within Africa. However, the study found that differences in economic situation between the two countries have left the Zimbabwe side being the most cited as causing delays. Also the lack of coordination between agencies was also a major problem.

6.2 Policy Recommendations

The reported perceptions of these respondents illuminated the institutional and infrastructural problems at border posts. Though the results cannot be generalised the lessons learned buttress a number of recommendations that can assist policy makers and implementers to improve efficiency at the border.

- Both sides of the border should discuss and come up with a list of agencies that should be at the border since some of the agencies have no business being at the border. Both sides should also introduce inland clearing services to reduce congestion at the border and the number of trucks at the border.
- The revamp of the railway infrastructure is necessary and will reduce the number of trucks at the border. The Customs authorities should introduce special clearance procedures for some goods such as fuel and dangerous goods.
- A new bridge should be built to accommodate the high traffic volumes at the Beitbridge Border Post. The old bridge should open during public holidays (peak periods) to reduce pressure on the new bridge.
- The Zimbabwean side should introduce a commercial area like the one found on the South African side. The ground around the Zimbabwe border area should also be rehabilitated.
- ZIMRA should improve the rate at which they release trucks to reduce congestion and should introduce a system similar to that on the South African side of CN1 and CN2 or inland clearance.
- Communication and coordination between the Zimbabwean side and South African side should be improved in terms of the release of trucks.
- Zimbabwe loads en-route to South Africa should be cleared faster on the Zimbabwean side since there are no duties to be paid.
- Immigration officials should be adequately remunerated to reduce incidents of corruption and more Immigration stations should availed during peak periods.
- Both governments should introduce more scanners and sniffer dogs at the border.

- Lastly, an OSBP can be a solution to some of these problems at the border. Both countries can also introduce different entrances for different vehicles to reduce convergence at entrances and exits.

6.3 Suggestions for future Research

The coordination of the Beitbridge Border Post is a major policy issue for both governments but what remains a major hurdle is the coordination of the respective laws for each country and how they hamper the management of the border post. Additional studies would need to be carried out to address the legal hurdles that hamper an efficient service delivery.

7 References

Andreas, P. (2003). Re-drawing the line: borders and security in the twenty-first century, *International Security*, *28(2)*, 78 – 111.

Aniszewski, S. (2009). Coordinated Border Management - A Concept Paper. *World Customs Organisation Research Paper 2:* World Customs Organisation.

Barka, H.B. (2012). *Border Posts, Checkpoints, and Intra-African Trade: Challenges and Solutions.* Abijan: African Development Bank.

Beghin, J. (2008). *Non-tariff barriers. In: Durlauf, S.N., Blume, L.E. (Eds.), The New* Palgrave Dictionary of Economics (2nd ed.). (pp. 126–129). Palgrave: Macmillan.

Boyatzis, R. E. (1998). *Doing Qualitative Research*. Thousand Oaks: Sage Publications.

Braun, V., & Clark, V. (2006). Using Thematic Analysis in Psychology. *Qualitative Research in Psychology*, *3(2)*, pp. 77-101. doi: 10.1191/1478088706qp063oa

Brunet-Jailly, E. (2005).Theorizing Borders: An Interdisciplinary Perspective. *School of Public Administration,10,*633-49.doi:10.1080/14650040500318449

Bryman, A., & Bell, E. (2011*). Business Research Methods* (3rd ed.). Oxford: Oxford University Press.

Castell, M. (1997). *The Power of Identity: The Information Age, Economy, Society and Culture* (Revised ed. 2010). Chichester: Wiley-Blackwell.

Chiliya N., Masocha R. & Zindiye S. (2012). Challenges facing Zimbabwean cross border traders trading in South Africa: A literature review. David Publishing: Roodeport.

Creswell, J. W. (2003). Research design: qualitative, quantitative, and mixed methods approaches. (2nd ed.). Thousand Oaks, CA: Sage Publication.

Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five approaches. Qualitative Inquiry (2nd ed.)*. (pp. 35-41). Thousand Oaks, CA: Sage Publication.

Curtis, B.(2009). *The Chirundu Border Post: Detailed monitoring of transit times*. Sub-Saharan Africa Transport Policy Programme Disscusion Paper No.10. Regional Integration and Transport-RIP Series. Retrieved from http://www.worldbank.org/afr/ssatp

Creamer, T.(2012). *One-Stop Beitbridge Border 'imperative' to unlocking further trade, investment.* Retrieved from http://www.engineeringnews.co.za/article/one-stop-beitbridge-border-imperative-to-unlocking-further-trade-investment-2012-05-03

Gallardo, D. (2012). *Straight Talk About Communication Research Methods (1st ed.).* Kendall Hunt Publishing Co.

Games, D. (2010). *Costly Beitbridge chaos could be solved with right political will*. Retried from http://www.africaatwork.co.za/articles/africa-analysis/costly-beitbridge-chaos-could-be-solved-with-right-political-will/105-costly-beitbridge-chaos-could-be-solved-with-right-political-will

Ghosh, B., & De, P. (2008). Reassessing Transaction Costs of Trade at the India-Bangladesh Border. *Economic and Political Weekly*, *43(29),* 69-79.

Gill, P., Stewart, K., Treasure E., & Chadwick, B. (2008) Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, *204(6),* 291-295. doi: 10.1038/bdj.2008.192

Griffiths, I. (1986). "The Scramble for Africa: Inherited Political Boundaries." *Geographical Journal, 152(2),* 204-16

Helliwell, J. F. (2002). "Measuring the Width of National Borders". *Review of International Economics*, 10(3), 517–524. doi: 10.1111/1467-9396.00347

Hummels, D.L., & Schaur, G. (2009). *"Hedging Price Volatility Using Fast Transport,"* NBER Working Papers 15154, National Bureau of Economic Research, Inc.

Ireland, R. & Matsudaira, T. (2011). *Reform instruments, tools, and best practice approaches.* Border Management Agency: World Bank.

Jain, S.R. (2011). Coordinated border management: the experience of Asia and the Pacific region. *World Customs Journal, 6(1),* 65-72.

Kieck, E.(2011). Coordinated Border Management: Unlocking trade Opportunities though One Stop Border Posts. *World Customs Journal , 4(1),* 6-7.

Konrad, V., & Nicol. H.N. (2011). Border Culture, the Boundary Between Canada and the United States of America, and the Advancement of Borderlands. *Geopolitics,16(1),*70-90. doi:10.1080/14650045.2010.493773

Leimgruber, W.(2006). Boundaries and transborder relations, or the hole in the prison wall: On the necessity of superfluous limits and boundaries. *GeoJournal, 64*, 239-248. doi: 10.1007/s10708-006-7185-6

Maxwell, J. (1997). *Designing a qualitative study*. In L. Bickman & D. J. Rog (Eds.) Handbook of applied social research methods (pp. 69-100). Thousand Oaks, CA: Sage.

Megoran, N. (2011). Rethinking the Study of International Boundaries: A Biography of the Kyrgyzstan–Uzbekistan Boundary. *Annals of the Association of American Geographers, 102 (2),* 464-481. doi: 10.1080/00045608.2011.595969

Merriam, S.B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass Publishers.

Meier P.S. (2007). *Mind-mapping a tool for eliciting and representing knowledge held by diverse informants.* University of Surrey : Gildford.

McLinden, G., Fanta, E,. Widdowson, D., & Doyle, T. (2011). *Border Management Modernization*. Washington, D.C: World Bank.

Newman, D., & Paasi, A. (1998). 'Fences and Neighbours in the Post-modern world: Boundary Narratives in Political Geography'. *Progress in Human Geography, 22(2),*186–207.

Newman D. (2006). The lines that continue to separate us: borders in our 'borderless'world. *Progress in Human Geography, 30 (2),* 143-161.doi:10.1191/0309132506ph599xx

Organisation for Economic Co-operation and Development (OECD). (2005). Analysis of non-tariff barriers of concern to developing countries. *OECD Trade Policy Working Papers, No. 16*. JT00193423

Organisation for Economic Co-operation and Development (OECD). (2011). *Aid for Trade Case Story on the Chirundu Border Post. Aid-for-Trade Case Story Zambia*. World Trade Organisation.

One Stop Border Post Source Book Tooltip. (2011). Retrieved March 7,2013 from

http://www.eac.int/infrastructure/index.php?option=com_docman&Itemid=157

Parker, N., & Adler-Nissen, R.(2012). Picking and Choosing the "Sovereign" Border: A theory of Changing State Bordering Practices. *Geopolitics, 17*, 773-796. doi:10.1080/14650045.2012.660582

Pearson, M., & Chaitezvi, C. (2012). *Trade Facilitation in the COMESA EAC SADC Tripartite Region*. Pretoria: Trademark Southern Africa.

Phillips, J.D. (2005). Improving Border Management. *International Journal, 60(2),* 407-15.

Polner, M. (2011). Coordinated Border Management from theory to practice. *World Customs Journal*, *5(2)*, 49-60.

Saunders, M., Lewis, P., & Thornhill, A. (2003). *Research method for business students* (3rd ed.). New York: Prentice Hall.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63–75.

Sibanda, G.(2012).*Trade with South Africa declines*. Retrieved from http://www.herald.co.zw/index.php?option=com_content&view=article&id=56755:trade with-sa-declines-&catid=41:business&Itemid=133

Taylor, J.C., Robideaux D.R., & Jackson G.C. (2004). U.S.-Canada Transportation and logistics: border impacts and costs, causes and possible solutions. *Transport Journal*, *43(4)*, 521.

Teddlie, C. & Yu, F. (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research, 1*, 77. doi: 10.1177/2345678906292430

Trademark Southern Africa. (2010). *Beitbridge Border Post Progress Report*. Retrieved October 16, 2013 from: http://www.trademarksa.org/rirn

Trademark Southern Africa. (2011). *Improving Service Delivery and Reducing Clearing times at Beitbridge Border Post: An Aid for trade Case Story UK*. World Trade Organisation.

United Nations Economic Commission for Africa. (2012). *Assessing Regional Integration in Africa IV: Enhancing Intra-Africa Trade.* UNECA: Addis Ababa.

United Nations Conference on Trade and Development. (2009). *Strengthening Regional Economic Integration for Africa's Development Economic Development in Africa Report.* UNCTAD: Geneva.

Yin, R. K. (2009). *Case Study Research: Design and Methods (Applied Social Research Methods) (*4th ed.).(pp. 240). doi:10: 1412960991

Zarnowiecki, M. (2011).'Borders, their design and their operation', in G. McLinden, E. Fanta, D. Widdowson & T Doyle (eds.), *Border Management Modernization* (pp. 37-78). Washington, DC: IBRD/World Bank.

Appendices: Questionnaires

Questionnaire number			

A: AGENCY QUESTIONNAIRE

INTERVIEWER DETAILS

Official Use.

Date of Interview:		Interviewer's Name:	
Start Time of Interview:		Interview End Time	
Length of Interview:			

Introduction

*My name is Lydia Maredi from the University of Cape Town Business School and I am conducting a study on "**An investigation into causes of delays and possible solutions: A focus into institutional and infrastructural factors Beitbridge Border Post".** This study is being conducted in fulfilment of MPhil in Development Finance programme and is purely for academic purposes only and any information you provide will be kept strictly confidential*

RESPONDENT'S DETAILS

Name of Respondent *(Optional)*				
Company/Department Name				
Telephone Number *(Optional)*				
Position				
Side of border	SA Side	1	Zim	2

SECTION A: PROCESSESS AND PROCEDURES

1. What border process/es are you involved in?

_____

_____

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_____

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2. How many agents/people are in involved your process from start to finish?

1 to 2	1
3 to 4	2
5 to 6	3
7 to 8	4
More than 8	5

3. Which business processes follows after the completion of your process?

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4. What are the steps in completing the business processes and procedures?

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5. Which documents are required for this process?

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6. What documents do you give the customer after the completion of the process?

7. Which other actors in border management and control do you consult or communicate with in order to make a decision for an application / process?

8. What kind of data do you exchange with the actors stated above?

9. What problems / bottlenecks do you encounter in procedures and regulations in your business process?

10. What factors contribute to these problems / bottlenecks in your business process?

11. Which types of customers are mostly affected by the delays caused by the bottlenecks?

SECTION B: TRAFFIC TYPES AND VOLUME

12. What form of traffic do you deal with during **peak periods**?

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13. How many do you serve in a 24 hour period during **peak periods**?

Type of Traffic	Number
a.	
b.	
c.	
d.	
e.	
f.	

14. What form of traffic do you deal with during **off-peak periods**?

_____

_____

_____

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15. How many do you serve in a 24 hour period during **off-peak periods**?

Type of Traffic	Number
a.	
b.	
c.	
d.	
e.	
f.	

16. How long does it take you to complete processes and procedures during **peak** periods for individuals?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

17. How long does it take you to complete processes and procedures during **off-peak** periods for individuals?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

18. How long does it take you to complete processes and procedures during **peak** periods for truckers?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

19. How long does it take you to complete processes and procedures during **off-peak** periods for truckers?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

20. How many check points does your business process have for each of the identified traffic types?

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21. How does the traffic volume and type impact on your processes and procedures?

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SECTION C: HARMONISATION AND SIMPLIFICATION OF PROCEDURES

22. Which business processes can be carried out in parallel to your business process?

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23. Which documents in your business process can be eliminated or standardized?

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SECTION D: SOLUTIONS

24. What solutions would you suggest to reduce delays caused by processes and procedures?

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25. **Other Comments:**

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Thank you for your participation

Questionnaire number			

B: TRUCKERS QUESTIONNAIRE

INTERVIEWER DETAILS

Official Use.

Date of Interview:		Interviewer's Name:	
Start Time of Interview:		Interview End Time	
Length of Interview:			

Introduction

*My name is Lydia Maredi from the University of Cape Town Graduate School Business and I am conducting a study on "**An investigation into causes of delays and possible solutions: A focus into institutional and infrastructural factors at Beitbridge Border Post".** This study is being conducted in fulfilment of MPhil in Development Finance programme and is purely for academic purposes only and any information you provide will be kept strictly confidential*

RESPONDENT'S DETAILS

Number of participants *(Optional)*

Side of the Border Interviewed	SA Side	1	ZIM Side	2
En-route	SA	1	ZIM	2

SECTION A: PROCESSESS AND PROCEDURES

26. What problems do you encounter on this side of the border post?

27. How do these problems contribute to delays at the border?

28. What processes and procedures do you go through after entering the border?

29. How long does it take you to complete Immigration procedures during **peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

30. How long does it take you to complete cargo clearance procedures during **peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

31. How long does it take you to complete Immigration procedures during **off-peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

32. How long does it take you to complete cargo clearance procedures during **off-peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

33. Where in your opinion is the major bottle neck on this side of the border? *(probe fully)*

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34. What other factors besides Immigration and cargo clearance contribute to delays within the yard? *(probe fully)*

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SECTION B: TRAFFIC TYPES AND VOLUME

35. What forms of traffic do you encounter at the border?

36. How does this traffic impact on the time you spend at the border?

37. What type of cargo do you transport through the border?

38. How does the type of cargo impact on the time you spend at the border?

SECTION C: HARMONISATION AND SIMPLIFICATION OF PROCEDURES

39. What procedures at the border can be carried out at the same time to minimize delays?

40. What else can be done to reduce delays caused by processes and procedures?

41. **Other Comments:**

Thank you for your participation

Questionnaire number			

C: PEDESTRIANS QUESTIONNAIRE

INTERVIEWER DETAILS

Official Use.

Date of Interview:		Interviewer's Name:	
Start Time of Interview:		Interview End Time	
Length of Interview:			

Introduction

*My name is Lydia Maredi from the University Of Cape Town Graduate School Of Business and I am conducting a study on "**An investigation into causes of delays and possible solutions: A focus into institutional and infrastructural factors at Beitbridge Border Post".** This study is being conducted in fulfilment of Master of Development Finance programme and is purely for academic purposes only and any information you provide will be kept strictly confidential*

RESPONDENT'S DETAILS

Number of participants				
Side of the Border Interviewed	SA Side	1	ZIM Side	2
En-route	SA	1	ZIM	2

SECTION A: PROCESSESS AND PROCEDURES

42. What problems do you encounter on this side of the border post?

43. How do these problems contribute to delays at the border?

44. What processes and procedures do you go through after entering the border?

45. How long does it take you to complete Immigration procedures during **peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

46. How long does it take you to complete Customs clearance procedures during **peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

47. How long does it take you to complete Immigration procedures during **off-peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

48. How long does it take you to complete Customs clearance procedures during **off-peak** periods?

less than 1hr	1
1 to 2 hours	2
3 to 12 hours	3
13 to 24hrs	4
24 to 48hrs	5
48 to 96hrs	6
More than 4 days	7

49. Where in your opinion is the major bottle neck on this side of the border? *(probe fully)*

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50. What other factors besides Immigration and Customs clearance contribute to delays within the yard?*(probe fully)*

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SECTION B: TRAFFIC TYPES AND VOLUME

51. What forms of traffic do you encounter at the border?

52. How does this traffic impact on the time you spend at the border?

53. What type of luggage do you declare at Customs?

54. How does the type of luggage impact on the time you spend at the border?

SECTION C: HARMONISATION AND SIMPLIFICATION OF PROCEDURES

55. What procedures at the border can be carried out at the same time to minimize delays?

56. What else can be done to reduce delays caused by processes and procedures?

57. **Other Comments:**

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Thank you for your participation.