THE PROHIBITION OF PARATRANSIT SERVICES IN HARARE ZIMBABWE AND ITS IMPLICATIONS

Photograph 1. A typical mushika shika loading passengers: (Kutshwa,2021)

A 60-credit dissertation presented by Nokuthula Linda Kutshwa
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Acronyms

GoZ - Government of Zimbabwe
CBD - Central Business District
CoH - City of Harare
Zim Stat - Zimbabwe National Statistics Agency
ET- Emergency Taxi
ZUPCO - Zimbabwe United Passengers Company
ZINARA - Zimbabwe National Road Administration
ZRP-Zimbabwe Republic Police

DECLARATION

I hereby declare that this dissertation is my own work and has never been submitted in any other institution for any purpose whatsoever. Where assistance was sought from people or information was obtained from any source the parties or information has been rightfully acknowledged or clearly referenced accordingly.

This work is being submitted for a Master of Engineering in Transport Studies at the University of Cape Town.

Signed by candidate

Name.: Nokuthula Linda Kutshwa Date……...

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I would like to express my sincere gratitude to my supervisor Professor R. Behrens for his invaluable patience and feedback.

Lastly, I would be remiss in not mentioning my family, especially my children. They have kept me highly motivated during the period I have been conducting this research.

ABSTRACT

Background

A ban on '*mushika shika'* was officially announced in March 2020 by the Government of Zimbabwe (GoZ) citing the need to curb the spread of COVID-19. Since 2016, the GoZ has been trying to restrict the '*mushika shika'* from entering the CBD of Harare. '*Mushika shika'* – stemming from the Zulu word for hustle – refers to unregulated illegal vehicles that operate an alternative form of public transport.

Aim

This study investigates whether the ban of '*mushika shika*' in Harare, Zimbabwe was an appropriate policy decision. The impacts brought about by the ban or prohibition are investigated. The researcher uses the impacts to assess whether prohibition was necessary.

Method

Research methods consisted of both a quantitative and qualitative study. The indicative quantitative study was aligned to a (2021, n=23) non-probability survey conducted with commuters, while the qualitative study was used for (2021, n=7) interviews conducted with ZUPCO, commuter omnibus operators, and '*mushika shika*' operators. City of Harare (CoH) officials did not participate in the interview and secondary sources were used to gather data aligned to the local authority. Representatives of local government authorities fear divulging information and would rather not be involved in surveys or research. Qualitative data analysis involved thematic analysis to derive patterns. Interpretive phenomenological analysis was also applied to interpret operators' experiences of the '*mushika shika*' ban. Quantitative data analysis was done through descriptive statistics. The data collection tools used were structured interview questions and an online questionnaire survey. Site observation was also used to supplement the interviews and survey data.

Findings

The results of the study show that the ban of '*mushika shika*' led to a situation where the demand was greater than the supply. The formal public transport service ZUPCO was inundated and unable to meet demand. The impacts on people that rely on public transport were severe. Most respondents indicated that they prefer using '*mushika shika*' as they have

attributes nonetheless such as flexibility, which is absent on the regulated transport sectors. '*Mushika shika*' has a downside of poor safety and security, which the captive public transport user in Harare is forced to ignore as there are no other public transport options.

Discussion

The research findings show that the public transport challenges being experienced in Harare after the ban of '*mushika shika*' are serious and have had negative impacts to the commuters and all the informal and formal operators. The macro-economic climate and poor governance have contributed to an ailing public transport system in Harare and the rest of Zimbabwe. The opportunity to interview the formal and informal public transport sector has shed light on the different challenges the operators are experiencing, due to their different operation environments in terms of regulations. Commuters who were viewed as the end users, have suffered considerably. For instance, women were observed by the media, climbing onto the back of open vehicles and travelling to destinations while standing in dangerous positions. Commuters have been forced to wait for transport in long queues for more than two hours in crowded places that are not safe or succumb to walking long distances.

Conclusions

The researcher concluded that, despite the illegal status of '*mushika shika*,' the ban was not sufficiently evaluated beforehand and therefore inappropriate. The root causes for influx of the illegal paratransit must be investigated and resolved by public transport specialist. The economic crisis, collapse of transport infrastructure, absence of regulation and policies, lack of expertise are some of the root causes of poor service delivery by the regulated transport operators. This has created a gap that the paratransit sector has taken advantage of.

1. INTRODUCTION

This research on the illegal taxi and minibus operators commonly known as *'mushika shika'* and '*kombis'* was conducted in Harare. Harare is the capital city of Zimbabwe formerly known as Salisbury. Harare is a Shona word which means *"the one that does not sleep"* in the native language. It is located on the North-eastern part of Zimbabwe within Mashonaland Province. The city of Harare has been growing at a fast pace and is the central economic hub in Zimbabwe. There is constant movement of people and goods from one point to the other in the city of Harare. The trips purposes including travelling to access work, school, shopping, leisure, health facilities and other government related services. The movement of people and goods is a common sight through the day and night. The availability of effective and efficient public transport systems in any given community is a necessity and cannot be overemphasized. People have a need to move from one point to the other using affordable, reliable, safe, and secure modes of transport. This necessitates the need for improved public transport systems that can cater for the population growth and support the economic activities.

Zimbabwe has an ailing economic structure which has led to the collapse of numerous services, and this has impacted the transportation industry to a substantial extent over an extended period. The collapse of the formal public transport industry has led to many other interesting developments which have drawn the attention of the public transport specialists and deserve to be studied to depth.

This research was conducted to determine whether it was necessary to ban *'mushika shika'* and what were the implications thereof. Therefore, it is worthwhile to dwell on how the *'mushika shika'* became part of the informal transport sector and were deemed to be illegal by the authorities in Zimbabwe. Kumar, Zimmerman and Fatima (2021) defined informal transport services as those that operate without any endorsement from authorities and they do not have the appropriate paperwork required such as permits, licences or registration papers. Furthermore, the informal transport operators do not have fixed routes, designated drop off points and strict schedules. All operations are demand responsive and at the owner's discretion. The small vehicles mushroomed through the streets of Harare and were not endorsed by the authorities as compared to the commuter omnibuses (also known as *'kombis')*. This requires one to reflect on the historical public transport system in Zimbabwe. In the year 1997 public transport comprised of conventional buses, minibuses and *'emergency taxis'* (small capacity

vehicles of the station wagon type) (Mbara and Maunder, 1997). United Transport Overseas Services (UTOS) used to be the sole provider of conventional buses as public transport since 1954 in Harare. After Zimbabwe gained independence in 1980, the conventional buses and minibuses belonged to the Zimbabwe United Passenger Company (ZUPCO) of which 51% was owned by GoZ and the British company, UTOS. It was reported that the GoZ authorised the use of '*emergency taxis'* so that they could augment the ZUPCO fleet. As time went on, GoZ authorised the use of private owned vehicles that could carry more than seven (7) passengers, and this led to a decline in numbers of the *'emergency taxis'* (Mbara and Maunder, 1997:645-653). GoZ deregulated, the urban public transport and allowed for the private operators to conduct business in the urban areas. This led to the dwindling of the conventional buses and saw the reduction in fleet of the ZUPCO which failed to thrive in the transport sector. UTOS, pulled out of the partnership a few years down the line when the revenue started to decline, leading to non-maintenance of the existing fleet and failure to replace vehicles on the fleet. This led to an influx of the minibuses known as commuter omnibuses (Mbara, Dumba and Mukwashi, 2014:9). The commuter omnibuses were temporarily banned later in March 2020. The Zimbabwean Government cited that there was a need to contain the spread of the COVID-19 virus[1]. It should be noted that the commuter omnibus was an informal mode of transport that was not regulated, however a permit was required for commuter omnibus to operate in the CoH. A former commuter omnibus operator who was interviewed highlighted that the there was no consultation with the commuter omnibus operators prior the ban, indicating that she had eight (8) employees who were bread winners. The ban of the commuter omnibus was an unwelcome idea by the business operators, whose livelihoods were dependent on this form of business.

As commuter omnibus were in operation, the *'mushika shika'* was also flooding the streets of Harare. Due to the harsh economic climate the general populace sought other means of survival through provision of transport means to people that depend on public transport. The Traffic Safety Council highlighted that the vehicles used as '*mushika shika*' were more affordable to import as they costed about $USD 4000-$USD 5000, whereas a commuter omnibus costed

[1] "The GoZ is concerned with the illegal operation of private commuter omnibus which ply urban routes in Harare and other urban centres. The government strongly advises the private operators and the public, that urban transport services for the carriage of passengers, is restricted to those provided by the Zimbabwe United Passengers Company (ZUPCO) as provided for in Section 2(a) of Statutory Instrument 83 of 2020, Public Health (Covid-19 Prevention, Containment and Treatment) (National Lockdown) Order 2020," reads part of the statement. (New Zimbabwe, 2020)

around $ USD 8000. Operators could not afford to purchase the commuter omnibus, hence they opted for the smaller vehicles (B-Metro, 2018). This saw the introduction of the *'mushika shika.'* What type of vehicles are these and how were they operating? Makichi (2018) states that the *'mushika shika'* include vehicles such as the imported Honda Fit, Toyota Wish, and Toyota Raum. These vehicles are used to ferry commuters within the CBD and do not have designated pick-up points and drop off points. Dumba (2017:4) writes in his paper that '*mushika shika'* are small cars that had no regard for other drivers on the road and would drive recklessly and easily manoeuvre in traffic streams hence a quick turnaround time if compared to other public transport vehicles.

Description and illustration of the three modes of transport discussed in the research

The modes of transport that were of interest in this research were the ZUPCO buses, *'mushika shika'* vehicles and commuter omnibuses. These are the vehicles that are used to transport commuters from one point to the other in Harare and form a crucial part of the public transport system. The type of service that is provided by the public transport operators relies heavily on the modes of transport as well. Therefore, it is necessary to give a description of these types of vehicles for the purposes of this study. These modes of transport were of particular interest since it was necessary to interview the operators who manned these modes of transport to meet the objectives of this study.

'**Mushika shika'**

'Mushika shika' are small vehicles that are imported from Japan and are affordable. They have a passenger capacity of 4-7 people. *'Mushika shika'* vehicles include the following types of vehicles Honda Fit, Toyota Wish, and Toyota Raum. The Toyota Wish costs about $ US 5 000.00 and the Honda Fit costs about $ US 4 000.00 (B-Metro, 2018). Photograph 2. 'Mushika shika' loading passengers in the city centre of Harare (Machamire,2018) shows a typical vehicle that is used as a '*mushika shika'*. The photograph shows a vehicle that is overloaded in the city centre of Harare. The man who is standing on the vehicle ushers commuters to the vehicle and he is making himself visible to the commuters that may be looking for this type of transport service.

Photograph 2. 'Mushika shika' loading passengers in the city centre of Harare (Machamire,2018)

Commuter omnibus

Commuter omnibuses (or 'kombis') are vehicles that are used to transport commuters. The commuter omnibuses carry a maximum of fifteen passengers in Harare and these are also imported from Japan at a cost of about $ US 8 000.00 (B-Metro, 2018). The Toyota Hi-Ace commonly known as the Toyota Siyaya in South Africa is used as a commuter omnibus in Harare. This is a very common mode of transport, however most of these vehicles are not in a good condition. The researcher can attest that a few trips undertaken in these vehicles were very uncomfortable as seats are torn and metal parts will be protruding. In some cases, the conductor may have to support the door for the duration of the trip. These commuter omnibuses are used in these poor conditions due to lack of funds to replace them or a lack of funds to maintain the existing fleet.

Photograph 3. Commuter omnibuses at terminus (The Zimbabwe Mail, 2020)

ZUPCO buses

The ZUPCO fleet that has buses which carry seventy-six passengers at full capacity. The type of the vehicle is shown on Photograph 4. There are twenty-eight-seater ZUPCO mini-buses, but these are not operational as they are not in good condition and have a high break down rate (Mbara and Ziracha, 2002:2).

Photograph 4. 76-seater ZUPCO bus (Harare Post, 2018)

Emergency Taxi

The *'emergency taxis'* were small capacity vehicles of the station wagon type that would carry a maximum of seven passengers. The *'emergency taxis'* were introduced in the year 1988. Photograph 5 shows a typical vehicle that was used as an '*emergency taxi*'. Passengers that occupied the boot would sit on the floor of the vehicle. In other words, all the space in the vehicle was used efficiently.

Photograph 5. Typical Peugeot 404 used as 'emergency taxi' in Zimbabwe, (Sedgefield Class Cars, 2015)

1.1 Background

1.1.1 Statement of the problem

This research will focus on the prohibition of the *'mushika shika'* transport in Harare, and the impacts thereof, which will be of assistance in answering the question; was this an appropriate intervention by the GoZ? The name *'mushika shika'* originates from a Zulu word "umshika shika," which means to use any available means to earn a living (Sunday Mail, 2015). The paratransit transport that is of interest are the vehicles commonly known as *'mushika shika.'* The *'mushika shika'* are referred to as illegal taxi operators that have been providing transport services to commuters in the city of Harare and at some point, in the year 2016, Zimbabwe Republic Police (ZRP) descended heavily on this paratransit sector and prohibited them from operating in the city, citing several reasons that will be discussed in depth (Langa, 2016). '*Mushika shika*' had been operating illegally since their appearance in the transportation sector. The ban of *'mushika shika'* was officially announced in March 2020 by the GoZ citing the need

to curb the spread of COVID-19 (Dzawanda, Matsa and Nicolau, 2021). Besides the need to curb the spread of COVID-19 *'mushika shika'* were reported through the newspaper in Zimbabwe to have been causing havoc and mayhem in the city centre (The Sunday Mail, 2015). Since 2018, the GoZ has been trying to restrict the '*mushika shika'* from entering the CBD of Harare (Ncube, 2018). There has been an on-going battle between the ZRP, CoH police and the other informal public transport operators in Harare. It is of paramount importance to understand the implications that were and are being experienced due to the ban or prohibition of '*mushika shika'* in Harare.

Several events related to public transport have unfolded in the city of Harare after the ban of *'mushika shika'* and this even gave more reason to undertake this research. As mentioned earlier in the introductory chapter, commuter omnibuses were also temporarily banned to contain the COVID-19 pandemic. After the ban of commuter omnibuses, the government prescribed that the commuter omnibuses should operate under ZUPCO. ZUPCO would provide subsidised fuel and pay the commuter omnibus operators for the transport service they were providing. ZUPCO termed this a franchise agreement. Fig 1 shows important events in the public transport industry in Harare and the time in which they occurred. The timeline diagram provides a visual presentation of the turn of events from the year 1954 up to 2020 the year in which '*mushika shika'* was banned. It is worthwhile to note that corruption, political instability and nepotism create unstable environments that are conducive to the emergence of paratransit services especially the informal and illegal transport services. Ultimately poor and inconsistent policies tend to favour a few individuals in a society. Specialists and the affected parties are not given an opportunity to provide expert advice or comment on transport planning matters. Policies provide procedures and guidelines that are used for planning, implementation, quality control etc. In the worst-case scenario, there will be no policies in place to give guidance to stakeholders and operators and the results are catastrophic. This inevitably may lead to failure to provide transport services by a government which becomes an opportunity to earn an income by paratransit transport operators. This is an area of research that should be explored and studied further so that findings can be published or shared with concerned groups. These findings should be used to find solutions that can be applied to improve public transport in economically and politically unstable cities and countries.

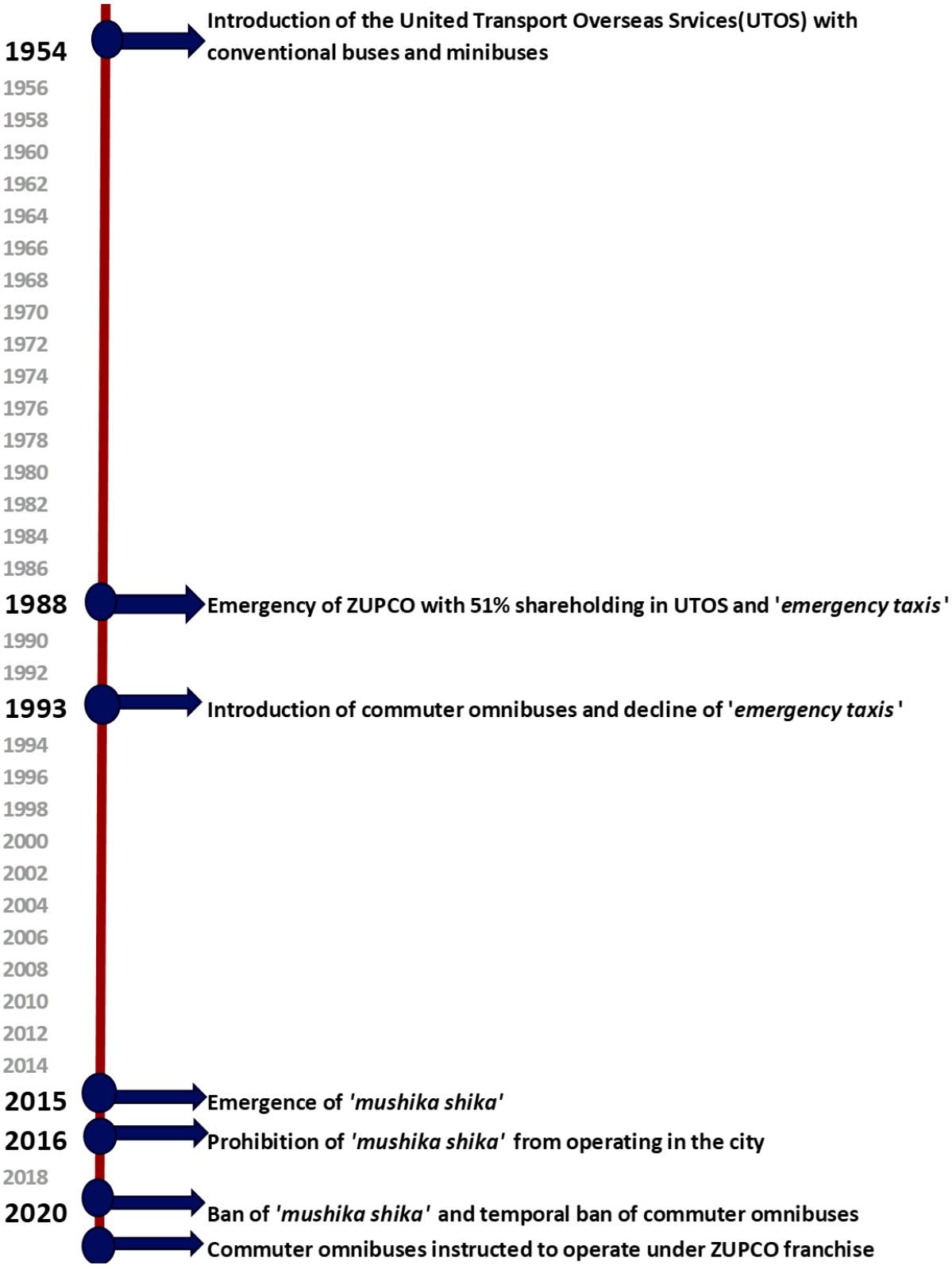

Figure 1. Timeline diagram (Ban of 'mushika shika')

1.2 Objectives of the study

The opening statement highlights that there was a ban of *'mushika shika'* by GoZ. Considering this amongst other things the aim of the study is to find out why the government decided to take that route of banning *'mushika shika'* and the impacts thereof. The research is necessary to gather facts on the sequence of events and against this background provide answers to the questions posed to achieve the objective. The impacts of the ban will be taken into consideration particularly focusing on the business operators, commuters, and other relevant stakeholders in the public transportation industry. The focus of the study will be on people, organisations and groups mentioned as it is highly likely that they have been directly impacted by the ban of '*mushika shika'* regardless of whether the impacts are positive of negative. Realising the impacts of the ban will assist in deciding whether this was an appropriate policy intervention by the government or not. The research also gives opportunity to find out if there were any other alternative solutions that were considered before imposing the ban of *'mushika shika.'*

If it was not appropriate what lessons can be learnt and what prescribed measures should be instituted to tackle or resolve the congestion being caused by the *'mushika shika'* in the city of Harare. It will also be necessary to propose solutions to mitigate or reduce the impact of government intervention. The lessons that will be learnt from this scenario should be beneficial to the transportation sector in resolving some problems that are being experienced in Harare and cities with similar problems in the region. On the other hand, if it was an appropriate intervention, what were the benefits to various stakeholders and how can these positive impacts be utilised in the formulation of policies in Harare. Furthermore, how can the system be improved to have efficient public transport systems in Harare, which is always bustling with activity.

This research is therefore guided chronologically by the following questions.

1. Why did GoZ ban '*mushika shika'* in Harare?
2. What were the impacts of banning *'mushika shika'* in Harare?
3. Was this an appropriate policy intervention by the authorities?
4. What are the future plans for the public transport industry in the Harare?
5. What are the lessons learnt from the prohibition of *'mushika shika'* in Harare?

1.2.1 Justification for the research

The prohibition of the paratransit transport in the city of Harare led to significant negative and positive impacts in the transportation sector, which was already on its knees. This was characterised by the flooding of the informal taxi operators in Harare especially in the CBD where road space is limited. There was a disregard for public safety and security. The streets of Harare were constantly congested and chaotic. It is of paramount importance to discover ways of improving operations of paratransit operations in the public transport sector or at least make provision for alternatives, which can be employed to benefit all stakeholders involved. It is critical to conduct this research more so in an environment that is socially and economically unstable, to analyse the extent of the impact in the prohibition of paratransit transport. The experiences of the service providers, the commuters and the GoZ are essential to decide if this has been an appropriate regulation response as well.

1.3 Outline of chapters

This research report outline is as follows.

Introduction

This chapter highlights the purpose of this research, which is about the illegal taxi operators commonly known as *'mushika shika.'* The research was conducted in Harare. The study focuses on why *'mushika shika'* operators were banned and the impacts thereof. It is in this chapter that the statement of the problem and justification of the research are detailed.

Literature Review

This chapter gives an overview of indication of scientific knowledge that has been published and is available on the public domain. Particular attention was paid to existing literature that dwelt on the government policies introduced due to the influx of paratransit forms of transport in different countries. Since this research focuses on a city in southern Africa most of the literature review focused more on the studies conducted in Africa. The researcher considered the socio-economic environment, social and cultural issues, governance, and historical

realities. This enabled the researcher to analyse findings and similarities of this research in comparison to other studies conducted mainly in Africa.

Research Method

This chapter details the steps undertaken to achieve the objectives of the study. The case study research design approach was adopted for this work to gain more insight on this area of interest. In addition, the mixed methods approach was deemed to be the most suitable method and was therefore applied to this study to ensure all required data was collected and analysed accordingly. Qualitative and quantitative research was undertaken to meet the objectives of this research. The data was collected through the involvement of participants. University of Cape Town ethics on research were upheld throughout the whole data collection process. Structured interviews and a questionnaire were used as data collection instruments. ZUPCO representatives, '*mushika shika*' operators and commuter omnibus operators were interviewed to collect the data relevant to this research. A questionnaire was designed to collect both quantitative and qualitative data from the commuters. The data collected was analysed using methods that are appropriate. The analysis methods were dependent on the format of the data. The data was presented in both numerical form and non-numerical form. Thematic analysis and the IPA (Interpretive phenomenological analysis) was used for qualitative analysis. Descriptive analysis was used for the quantitative analysis.

Findings

The extent of the findings in relation to the research questions and objectives will be discussed and reviewed to see if the research objectives were met.

Discussion

The aim of this chapter was to discuss the findings of this study. The findings were interpreted and explained in this chapter. The research approach used was also justified and critical evaluations were also taken into consideration. Reviews of the findings in relation to literature that is relevant to this study was discussed in this chapter. The researcher took into consideration findings from other literature. Similarities and differences between the

international and regional cases reviewed in the literature review chapter and the study conducted in Harare were compared.

Conclusion

This chapter gives the concluding remarks in the report. The recommendations and limitations of the study were highlighted in this chapter. The research objectives were revisited to check if the research questions were answered and the extent to which the questions were answered. Recommendation for further research were also highlighted.

2. LITERATURE REVIEW

2.1 Introduction

The study analyses the impacts of policies imposed on paratransit forms of transport in the context of unregulated vehicles that operate illegally. Previous studies have been conducted in some countries that have experienced the influx of informal modes of public transport such as the *'matatus,' 'kabu', 'okadas', 'boda bodas'* and *'vans'*. The studies have assisted in finding answers, filling the gaps in knowledge, and improving problem solving techniques related to public transportation policy formulation and decision making. Transport policies and regulation challenges are not outdated and have been an ongoing issue globally in the transportation industry. Numerous studies and research have been undertaken by academics in a bid to improve the sector as a whole and benefit all the stakeholders i.e., the authorities, service providers and the commuters. Zimbabwe has seen the influx of *'mushika shika'* and the subsequent ban of this illegal mode of transport. However, there is a gap that needed to be filled, hence studies had been conducted to find the reasons for the ban of '*mushika shika'* and the implications thereof in Harare. This is a phase that other countries such as Kenya, Uganda, Nigeria etc. have experienced. If other countries experienced an influx of informal modes of transport, how did they deal with it and were the solutions viable? Some governments resorted to banning or phasing out of these unregulated transport operators. What will be the outcome of the research in Harare and how will the findings be compared to research conducted in other countries especially those in Africa? Will there be any similarities or differences on the findings? Do policy makers and decision makers have the capacity to make sustainable decisions? Are they decisions not impacted by socio-political environments and unstable economies. These questions prompted the researcher to review literature and conduct a study in Harare.

This literature review also dwelt on the following aspects of the informal public transport sector in other countries, which experienced an influx of unregulated modes of transport.

- circumstances in which the unregulated transportation business come into effect,
- the quality of service provided to commuters,
- the challenges that officials and the government face and the outcomes thereof,

- ways to embrace the unregulated transport sectors and how they impact the transport sector.

The list is not exhaustive as there is quite a lot of research that has been conducted on the informal transport sector previously and currently.

The existence of illegal modes of transport with traits such as those of the Zimbabwean '*mushika shika'* have been in existence in several cities all over the continent of Africa and globally. In some instances, the illegal modes of transport have been legalised in their cities or countries of origin, for example the '*vans*' in Brazil. The modes of transport mentioned in this chapter and their countries of origin are as follows;

- *'okada'* and *'kabu'*- Nigeria
- *'matatu'*- Kenya
- *'boda'*- Uganda
- *'vans'*- Brazil

The type of vehicles listed above were selected based on that the operational environment had similarities with that of *'mushika shika.'* These types of informal modes of transport were not legalised and they offered convenience for the commuter in relation of travel time. Furthermore, they operated in busy areas where they became a nuisance to the local authorities.

The literature review involved identification of existing knowledge in various published books, papers and journals that are aligned to paratransit transport and public transport in the Global South. The media and newspapers were informative sources used to follow events of how the illegal public transport evolved and got to a point where it became a nuisance to authorities and ended up being banned from operating. At some point literature review entailed, devouring into interesting writings on public transport in busy cities. Lecture notes from the University of Cape Town, Centre of Transport Studies; formed a good backbone in defining some terminology and in the theoretical building of the research as they were a constant reference during the research study on literature review. The literature review provided information from other researchers on a related subject, their findings, and recommendations and gave insight on some limitations and lessons learnt.

Appropriate data collection methods undertaken in the past research and studies were as follows;

- Surveys earmarked to gather quantitative data from passengers.

- In-depth interviews with administrative bodies/local authorities, formal transport operators, and public transport operators to collect qualitative data.
- Observing the movement of commuters and public transport.

It is from these methods that selection for data collection was extrapolated as they have proven to be successful in studies conducted in the past. Challenges can also be encountered given the uniqueness of each research. These can either be social, economic, or political. Some of the challenges that are foreseen can be mitigated to meet objectives of the research. In cases where a survey may not be successful, interviews can be used as a research instrument.

2.2 'Boda-bodas' in Uganda

In Kampala Uganda, there was a study titled *Policy Challenges in Urban Transport & Infrastructure: The Case of Kampala*. The lack of a policy framework that enables infrastructure financing at City Level was a contributory factor to the congestion being experienced in Kampala. It was reported that there were costs attached to traffic congestion. These included reduced productive time, high volumes of Green House Gas Emissions that polluted the air, increased road rage cases, and reduced productive times due to unpredictable journey times. All of this is said to have had an impact on the social and economic costs in Kampala, Uganda (Musisi, 2016). Kampala Capital City Authority has outlined proposed interventions of which one of them is charging congestion fees.

A case study undertaken in Kampala titled *Informal Transportation in Uganda: A Case Study of the Boda Boda,* shows that at the time of the case study in 2016, congestion was experienced in the city of Kampala. It is reported that the privatisation of the bus services led to a conducive environment in which the *'boda bodas'* could operate. *'Boda bodas'* are bicycles or motorcycles that are used to carry passengers. Kampala Capital City Authority attempted to control the '*boda bodas'* which further frustrated them, the commuters, and the business owners. Interestingly this study concluded that the *'boda bodas'* where a necessity that augmented the public transport supply in Kampala, but there were safety and security risks (Raynor, 2014:54-55).

Evans, O'Brien & Ch Ng (2018:683-684) mentioned interesting discoveries that deserve to be discussed in this study. It was noted that '*boda bodas*' had the capability of negotiating through difficult terrain which was a challenge for larger vehicles, and they also occupied less road space. This was a benefit to the paratransit users who had difficulties in accessing their destinations. It should be borne in mind that some of the Global Positioning System was one of the data collection methods used to provide factual information about the movements of the *'boda bodas'* in Kampala Uganda. This is another important data collection tool that proved to be useful and improved the accuracy of the study from the author's pint of view. The study confirms that the '*boda bodas*' benefitted the less privileged through provision of income and supported integration of the formal and informal modes of transport to improve livelihoods.

'*Boda boda'* bicycle taxis were banned from conducting operations in the central business district of Nakuru town and the journal writer gives an analysis of the impacts of the regulation on operators and commuters. The findings from the study showed the income earned per day had reduced after imposing a ban. This was due to a reduced number of commuters that were transported in a day. Mutiso (2010:29) further states that there were conflicts that would arise between law enforcement agents and *'boda boda'* operators.

Mutiso (2010:29) dwells on the operational challenges that were brought about by the ban of '*boda boda'* bicycle taxi operators that prohibited them from picking and dropping off passengers in the central business district. He weighed in on the impacts of this decision and whether it was appropriate or not. His findings highlighted on how authorities tend not to give bicycle taxi operators a platform, so that an appropriate solution can be found that can lead to a more feasible and fair decision at the end of the day. The lack of appropriate infrastructure to enable safe operations should have been considered by the local authorities. This option was not even included in the decision-making process, so that the bicycle taxis could continue with operations. Inadequate infrastructure plays a vital role when making decisions that have an impact on operators and commuters. Infrastructure forms the basic elements of a robust public transport network system that is efficient. (Onderwater and Zuidgeest, 2019) in a lecture mentioned that a public transport network should amongst other things consist of;

> "*A set of public transport lines that connect with or cross each other and that are coordinated for efficient operation and provision of integrated services in an area for the convenience of passengers and efficiency of operations"*

and

"A *location along a line at which transit vehicles stop to* ***pick up*** *or* ***drop off*** *passengers"*

2.3 'Matatu' in Kenya

A study was conducted to gain an insight on the phasing out of '*matatu*' transport in Nairobi. A paper was written by (Ommeh et al., 2015) to examine the impact of the phasing out of *'matatu'* transport. In this paper the Government of Kenya did not outrightly ban the *'matatu'* but imposed a ban on the importation of the *'matatu'* to reduce the number of these types of vehicles on the road and encourage vehicles with a larger capacity. This was a different approach towards improvement of operations of the paratransit sector. The objectives were to reduce congestion, improve safety and environmental sustainability.

In the same paper (Ommeh et al., 2015:10) highlights that this decision was supported by some operators and, other operators felt that the decision was meant to benefit the suppliers without paying heed to the needs of operators. The study shows that the *'matatu'* operators were not consulted by the Kenyan Government and this had dire consequences in the transport industry. The phasing out of the '*matatu*' is reported to have reduced the supply of smaller vehicles into Kenya which in turn caused a high travel demand. This turn of events spiralled out of control as there were clashes amongst operators and confrontations with the Government in the form of strikes. The conclusions elaborated on the paper clearly show that policy makers made decisions that are politically inclined and not based on scientific research.

Institute for Transportation and Development Policy (ITDP) Africa is an organisation whose objective is to provide transport solutions in Egypt, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. An empirical study was conducted to determine if it was better to ban '*matatu*' or to keep the '*matatu*' operating. It was realised that the '*matatu*' were not the only vehicles that were causing congestion in the city of Nairobi. Private cars were contributing to the operational problems in the city in a significant way. This now was a fully-fledged study that pinpointed the challenges without only pointing fingers to the '*matatu*.' The ability to employ experts in transport planning for any government cannot be over emphasized. It is a need and not a luxury to budget funds and time for the purposes of gathering data, analysing, and making well though recommendations that ca assist in sustainable transport systems. Solutions that proved credible a decade ago may not be appropriate in this present day. For example, in this case more people were now buying previously owned Japanese vehicles to use as private transport. Whereas in

the nineties very few people owned personal cars. Currently, the world at large is dealing with climate change and decisions undertaken in any economic sector must take the environmental factor into consideration. Having said all this, ITDP Africa gave a remarkably interesting finding, whereby they advocated for the improvement of the public transport system so that the car users can opt for public transport, which could of course be augmented by the paratransit transport. This measure would reduce the volume of private cars on the road space and allow for efficient utilisation of road space by the public transport vehicles (ITDP, 2020). As an analysis an independent body may prescribe better solutions than a government that may have interests, which can jeopardise the provision of public transport of high quality.

2.4 'Okada' and 'kabu kabu' in Nigeria

Cervero (2020) discussed how that paratransit sector unfolded since the nineties. The public transport system collapsed, and this caused an influx of the '*kabu kabu'* (imported cars and minibuses) and *'okada'* (taxi motorcycle), that were used as intra-city public transport. The paratransit sector was filling the gap that was left by the formal public transport sector. Cervero (2020:151) in the same study highlighted that 70% of the population were using the *'okada'* in cities exceeding 250 000 people. The paratransit transport was causing congestion and chaos with no regard for the law and other road users in the cities of Nigeria. In the absence of regulations, the paratransit sector formed their own unions that saw improved working conditions for their workers (Cervero, 2020:152). This was a one-sided way of operating since it did not take commuters into consideration. Cervero wrote: "*There are no official sanctions against kabu−kabu services, and lacking the resources to change the situation, government officials have accepted them as a "necessary evil." Kabu−kabu fills a market void left by a death of public bus services."* Cervero (2020:15)

Adegboye, Akoni and Adelaja (2021) wrote an article stating that the lack of proper public transport has led many people to resort to the use of '*okadas*'. In their article titled "*Nigeria: How Okada Riders Defy Extant Laws to Unleash Mayhem on Lagos Road Users"* horrendous incidents are described where commuters have been involved in accidents and have failed to regain their health and some have suffered permanent disability. These are some of the negative impacts that must be realised in the illegal paratransit sectors. Safety has been a problem for most paratransit operators as they maneuver dangerously in highly trafficked areas at unsafe

speeds, so that they can have as many trips as possible. The larger the number of trips and commuters transported, the greater the income. This ultimately means that a goal would have been achieved and an operator has earned income which is required for survival. In the same article it is discussed in depth that the level of crime increases as the '*okadas*' were being used as to commit crimes such as snatching valuables from unsuspecting people in crowded areas and then disappearing into thin air on the motorcycles. The '*okadas*' were also used getaway vehicles as some of them were not registered and therefore could not be traced. This study gives a picture of how paratransit services can lead to total chaos, and it will require responsible authorities to take serious measures to restore order and preserve human life amongst other things. The Nigerian government is resorted to putting in place restrictions that inhibited the '*okadas*' from operating on certain roads and bridges and in places where they could operate a 10:00pm curfew was put in place.

The lack of policies and regulations in developing countries have been a root cause in the collapse of an efficient public transport systems. If policies and regulations are in place, there is an opportunity to monitor and review challenges that affect the public transport sector. If a government or authority fails to plan, then the results are disastrous, and a lot of effort may be required to revive a transport system that would have collapsed.

Ikot (2011:34) wrote a journal titled *Motorcycle Ban and its Economic Implications on Uyo Metropolis of Akwa Ibom State, Nigeria*. The purpose of the study was to find out the implications of banning the '*okada*.' Based on the analysis of the findings, the writers argued that the authorities have a mandate to consider the socio-economic effects of banning small business operators. Some of the implications of banning motorcycles can be detrimental. In this study it was been noted that there was in increase in crime, unemployment, and an overwhelming sense of insecurity. The challenges that emanate due to the presence of unregulated public transport are quite common in countries that are not economically unstable. It is human nature to yearn for a better livelihood and this is part of public transportation. Public transport planners and policy makers should be sensitive to these aspects.

Oladipo and Olubomehin (2012:231) also wrote on the '*okada*' business with the objective of finding out if this business has an impact on the community and society. Oladipo and Olubomehin (2012:236) have alluded to the positive impacts and negative impacts of the presence of '*okada*' transport. He emphasized that the '*okada*' transport has become a source of employment for many unemployed people.

In another journal article, (Agbiboa, 2020:176) stated that there were more than 200,000 riders and that approximately 500,000 job opportunities were created. He further mentions that the '*okadas'* were popular due to the low cost in purchase and maintenance. Ownership of these taxi motorcycles gave an overall sense of economic freedom to the younger generations.

The government was also benefitting from the revenue generated from number plates registration and vehicle licensing. This paratransit sector was reported to have also alleviated the public transport problems by reducing the demand for public transport. He further highlighted adverse impacts such as negative environmental effects, poor safety, and security measures. Some people were using the motorcycles to commit crimes such as snatching belongings from the public. The positive impacts and negative impacts of the unregulated transport industry are remarkably similar in different countries however diverse approaches may be required to resolve the challenges.

The benefits or impacts of unregulated public transport are discussed particularly for the operators and the commuters. There is little discussion on the negative and positive impacts on the authorities or the responsible governments.

It is important to get existing information on the current regulations with regards to the '*okada*' transport. The media reported that there was a ban imposed on the *'okada'* in Lagos Nigeria by the government in February 2020. The ban was enforced to due to safety concerns. The impacts of the ban have affected the commuters negatively, who must wait for prolonged periods for public transport. On the other hand, the transport operators felt that the government had left them jobless without an income. The fleet of buses provided could not cater for the public transport demand (Orjinmo, 2020). Given this turn of events it is now important to seek interventions to enable sustainable public transport systems in the developing countries.

2.5 'Vans' in Brazil

Rio de Janeiro the capital of Brazil has experienced the influx of paratransit public transport in the form of *'vans'* because the regulated transport could not match the demand for public transport during peak periods . It was also noted that the frequency was low during off-peak periods and the unregulated public transport operators filled this gap. Some of the *'vans'* were

used to reach places with challenging terrains and some are used to run "*special services*" such as carrying school children or workers. The study conducted shows that some cities in Brazil have regulated these *'vans'* and act as complementary transport on some routes. A survey carried out revealed that some of the commuters use *'vans'* instead of the bus. Shorter trip times and comfort were the main reasons why the vans were a prefered mode of transport. In the case of Rio de Janeiro the regulated bus owners were the ones that advocated for the ban of *'vans'* citing competition that was unwarranted. The bus operators were indicating that the *'van'* operators were taking some of their seats thus reducing their income (Balassiano and Braga, 1999:11). The '*vans*' were regulated in some municipal jurisdictions and when the study was carried out by (Balassiano and de Camargo Braga 1999:7) Rio de Janeiro did not allow for regulation of the '*vans*'. The 'vans' were considered to be illegal by the transport authorities and could only operate if contracted.

Ferro (2015) highlighted that the paratransit transport form part of the public transport. In this report he acknowledges that the changes that took place between regulated and unregulated transport over time were unique to locations in the Global South. The Global South refers to the regions of Latin America, Asia, Africa, and Oceania. Africa is excluded under this discussion since literature review has been undertaken earlier in this chapter.

Ferro (2015) argues that the paratransit sector cannot be excluded from the public transport industry, thus they have a role to play. Furthermore, the writer encourages the development of models that integrate the paratransit sector and the formal sector.

> "*Harmonious coexistence of formal and paratransit modes is difficult to achieve due to their contradictory natures yet approaches to transformation that allow paratransit services to have a role in the system might end up being more adapted to the cities in the Global South that still experience drastic transformations."*

Ferro (2015:13) acknowldges that the paratransit sector cannot be outrighly banned from operating as a public transport service provider. Informed decisions with regards to paratransit operations should be backed up by well researched scientific data, which allows for development of models that are realistic and practical. Challenges to public transport in devloping countries have similarities but the solutions cannot necessarily be the same given other factors such as location, social,economic and political matters. For most studies

conducted in Africa, the governments were the ones responsible for advocating for bans of paratransit transport due several reasons that have been cited earlier in this chapter.

Balassiano and de Camargo Braga (1999) disussed in their study that there was also a railway service in Rio De Janeiro that deteriorated due to lack of investment in the sector. This brought about operational problems and made the formal transport unreliable, causing a decrease in patronage. The collapse of the formal transport is attributable to poor transport policies. In the author's opinion if robust and sustainable policies were available , funding could have been planned for and injected into the formal transport sector as CAPEX or OPEX depending on the requirements to ensure functionality of the whole system.

In this study travel demand increased during the peak period and the van operators are said to have taken advantage of this gap in the public transport sector. Besides the collapse of the railway service, buses were not catering for some routes. The literature reviews undertaken by the author show that gaps in the formal transport led to the emergence of paratransit operators in their various forms.

Balassiano and de Camargo Braga (1999:9) interviewed commuters and it was confirmed that they prefered '*vans*' because the trip times were shorter and the rides were comfortable despite the service being more costly compared to buses.

2.6 Literature Review Summary

Figure 2 gives a summary of the literature review. The diagram shows that the collapse of formal public transport systems ultimately led to an increase in travel demand. This was seen as a gap in the public transport which the unregulated paratransit sector took advantage of and various modes of transport mushroomed in the different cities where previous studies were undertaken. The emergence of paratransit transport led to both negative and positive impacts. The responsible authorities put in place measures to mitigate the effects of the negative impacts brought about by the paratransit sector in their respective cities and countries.

SUMMARY OF LITERATURE REVIEW

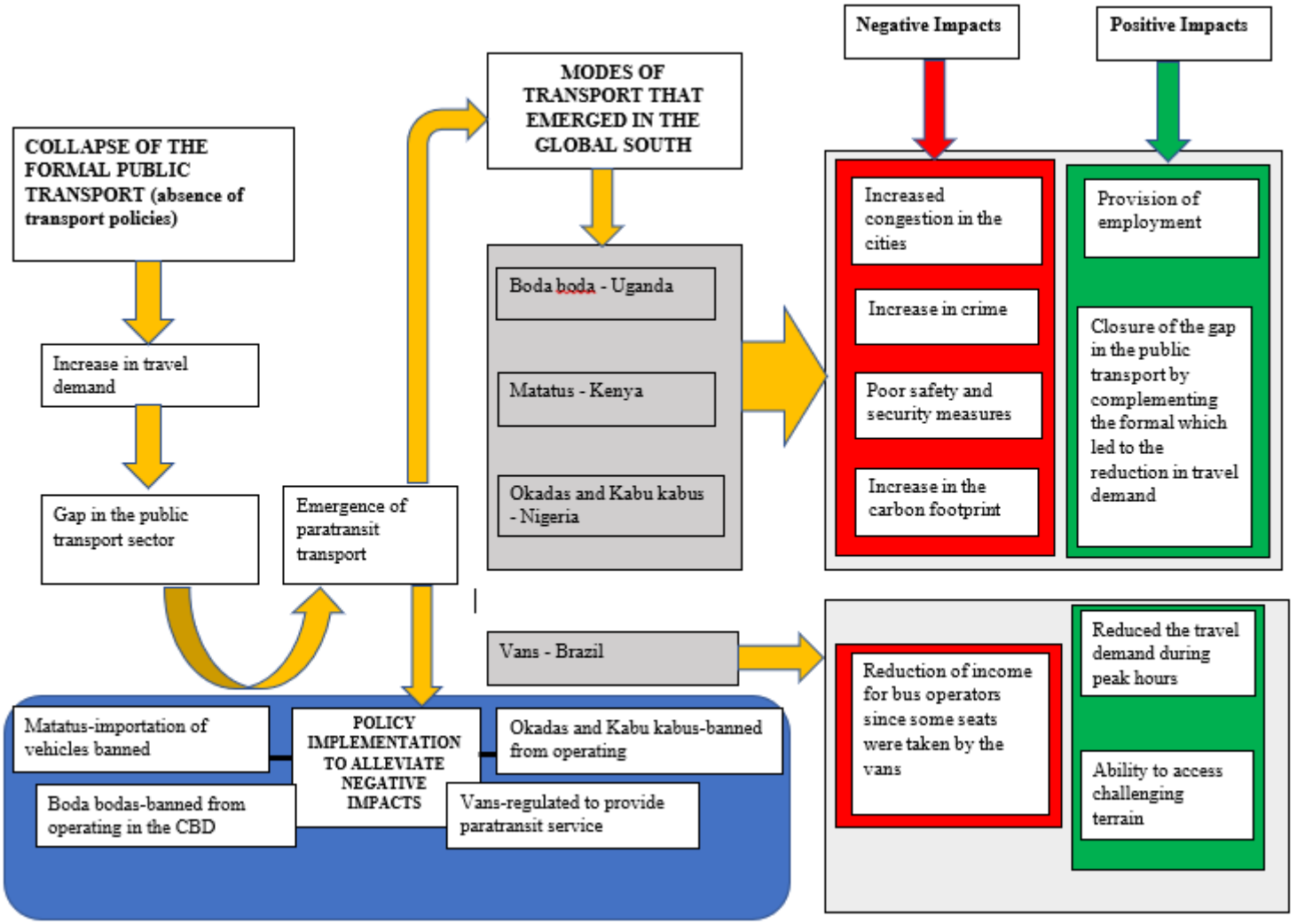

Figure 2. Conceptual Diagram (Literature Review)

2.7 Conclusion

The literature review undertaken clearly shows that substantial work has been covered dating back to the seventies. The findings have had positive contributions towards improving the public transport system to enable affordable, reliable, safe, and secure transport. The paratransit operators clearly have similar behaviour which includes risky behaviour when operating vehicles with a disregard for the law. The paratransit transport vehicle inundates their areas of operation and make road space inefficient. This has been one of the major reasons that has led to imposition of bans in most circumstances. The operational behaviours of paratransit transport evolve over time subject to macro-economic environment, social norms, and political events. It is imperative for studies to be continued on implications of any regulations and policies imposed and recommendations should not automatically dismiss paratransit operators.

The integration of both unregulated and regulated public transport operators should be an option towards resolving some of the challenges brought about by the two sectors. A conference paper titled "*Planned and Paratransit Service Integration Through Trunk and Feeder Arrangements: An International Review*" (Salazar, et al., 2012) advocates for the co-existence of the unregulated and regulated transport sectors. The author of this research resonates strongly with the conclusions brought forward given the findings of this research and those of other researchers.

Public transport reforms should be clearly stated in literature and pilot projects encouraged especially if they were successful in other cities or countries faced with similar transport challenges. Lessons have been learnt over the years of research, and studies have supported the integration of paratransit transport and formal transport, and this has benefited the public transport user, operators, and the authorities.

3.1 Introduction

The study was conducted using both the quantitative research and qualitative research methods. The research methodology gives an outline of the activities undertaken for the research study. The initial step entailed studying the existing literature that is aligned to this research and preparation of the interview questions and questionnaire that were used as tools for data collection. This was followed by the preparation of study requirements and field working tools.

The researcher was responsible for the identification and design of research tools or instruments being guided by the supervisor. These research tools or instruments were developed in such a manner that they would meet the objectives of the study. Thereafter the researcher devised means of collecting the data taking into consideration, restrictions due to the COVID 19 pandemic. Thereafter the informant persons and were identified and requests were put in place to interview them. A questionnaire was shared on various online platforms to collect data as well. As the interviews and questionnaires were being undertaken there was a constant follow up on the media in relation to the evolving events surrounding the ban of '*mushika shika.'* All interviews were conducted by the researcher and the survey questionnaires were distributed by the researcher online. Upon completion of data collection, the researcher analysed the data, and presented the data in a readable format. Primary data and secondary data were collected for the purpose of this study.

The political situation in Zimbabwe is extremely sensitive and from the author's observation limits the collection of true and accurate data from various sources. If one approaches a government entity there is reluctancy by key personnel to be interviewed or to allow any other person in the sector to be interviewed. There is fear that the researcher may be anti-government individual or someone spying on the day to day running of government entities. In these circumstances no consent is given, and they would be no participation in the study. Since the research abides to ethical standards set out by the University of Cape Town, the interviews could not be conducted.

The limitations identified during the analysis emanated from incomplete responses from the questionnaire that was completed by commuters. However, this was minor as it did not have an impact on the study objectives.

3.2 Study area description

The research study area was the city of Harare which lies North-East of Zimbabwe. It lies in Mashonaland East Province. According to the population statistics released by the Zim Stat in the year 2012, the city of Harare had a population of 2,123,132 people and the whole of Zimbabwe had a total population of 13,061,239 in the year 2012 (Zimbabwe National Statistics Agency, 2012). This means that about sixteen percent (16%) of the Zimbabwean population resides in Harare which covers an area of 960.6km^2 out of a total area of 390 757km^2. The United Nations Population Fund estimated the population of Zimbabwe to be 15,1 million in the year 2021(United Nations Population Fund, 2021). Harare is the metropolitan province, which has four districts that are Harare Urban (CoH), Harare Rural, Chitungwiza and Epworth towns (Kamusoko and Chikati, 2017). **Error! Reference source not found.** shows the location of the study area in relation to the whole country. The CoH comprises of the following areas described in Table 1. Land use in Harare (Wikipedia, 2021).

Table 1. Land use in Harare (Wikipedia, 2021)

Area/Suburb	**Suburb**	**Land use**
Harare City Centre	Central Business District	Retail shops, offices, banks, uptown hotels, shopping centres and there is a hype of activity of informal business in the streets.
Harare Inner-East	Eastlea, Highlands, Greendale	Middle density residential areas.
Harare North-East	Chisipite, Colne Valley, Borrowdale, Glen Lorne, the Grange, Umwinsidale	Low density residential areas, predominated by the very wealthy class.
Harare North	Avondale, Strathaven, Mount Pleasant, Belgravia, Bluff Hill	Low density residential area, with some locations that have a hype of activity
Harare Industrial South-Central	Workington, Southerton, Willowvale, Graniteside	Industrial area that is housing large factories
Harare South-West	Dzivarasekwa, Warren Park, Kuwadzana, Mufakose, Budiriro, Highfield, Glen View, Waterfalls	Composed of Medium and High-density areas that are located some distance from the city centre

An understanding of the demographics and economic will assist the reader in gaining an insight in relation to the data collected from the passenger survey. In this survey passengers responded

to questions that relate to trip origin and trip destination. It is therefore important to detail the area of study. Figure 4Figure 4. Extract of Harare Central Map (Google Maps, 2022) The choice of the mode of transport is influenced by factors such as affordability, comfort, availability, travel cost, convenience, and experience. In this study "*mushika shika"* is commonly found on routes from the city centre to the following suburbs and vice-versa;

- Harare South-West (medium and high-density suburbs and vice-versa)
- Harare Inner-East (middle density residential area)

Harare North (low density area)The "*mushika shika*" routes lie on the secondary and the regional road corridors. In addition to the trip routes listed above "*mushika shika*" also provides transport from one point to the other within the city centre for commuters that require short trip times in cases were walking may take long. In this case *"mushika shika*" uses the primary paved roads.

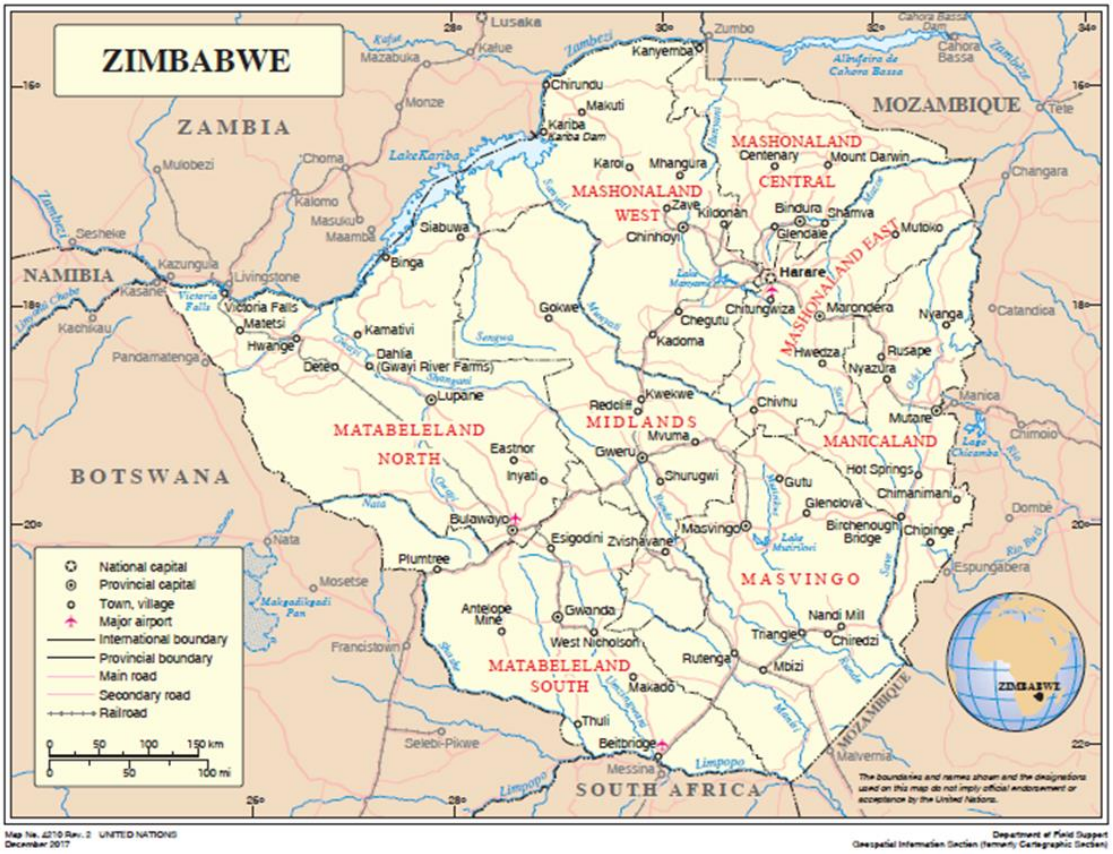

Figure 3. Map of Zimbabwe (United Nations Geospatial, 2017)

Figure 4. Extract of Harare Central Map (Google Maps, 2022)

3.3 Key informant qualitative interviews

- Respondent recruitment

Key informants were crucial to investigate why the *'mushika shika'* was banned. The key informants identified were CoH and the biggest and only transport parastatal ZUPCO. The informal public transport sector was part of the study to gather information that could answer research questions outlined to draw conclusions.

The interviews were held with ZUPCO, commuter omnibus operators and *'mushika shika'* owners. Public transport operators were identified on the streets of Harare and asked about their opinion on the bans imposed on them as public transport operators. These interviews were held at the operators' known places of operation in Harare. Study participants were selected based on the questions that were guiding the research. The transport problem at hand has an impact on the service providers and the policy makers.

- Data collection

Formal interviews were conducted through virtual platforms due to limitations presented by the pandemic COVID -19. This was referred to as the *"new normal."* It was necessary to conduct the interviews in a safe manner, ensuring that this did not compromise ethics and the quality of the findings and results. The interviews were conducted using structured interview questions that were designed by the researcher and reviewed by the academic supervisor and the ethics committee. It is honestly a pity that the interviews could not be conducted in person as this would have been a completely unique experience. The chance to meet participants in person was completely thrown out the window due to the pandemic era, in which the study was conducted. A participant's facial expression, body language etc. enables the researcher to get an emphasis on the answers and learn new things from the participant being interviewed, without any withholding of information or fear of the other person on the other side of the video call or telephonic interview. Interactions in person are different from interacting virtually, given that they were conducted with unfamiliar people.

- Data analysis

The thematic analysis dwells on the patterns of collected data to derive a meaning from the data set (Warren, 2020). In this study participant's experience and opinions was extrapolated from the responses provided by the participants during data collection. Data was collected through interviewing ZUPCO representatives. Thematic analysis was used to analyse data that was collected from the media.

The responses from commuter omnibus operators and '*mushika shika'* operators experiences were aligned to a specific situation, which in this case was the ban of '*mushika shika.'* Besides the ban of '*mushika shika*' the commuter omnibus operators were also banned and had to operate under different circumstances highlighted earlier on. The IPA (Interpretive phenomenological analysis) was the most suitable type of data analysis method for the interviews conducted for commuter omnibus operators and '*mushika shika*' owners. (Warren, 2020) describes this type of analysis in the following manner.

> *"The IPA is designed to help you understand the personal experiences of a subject (for example, a person or group of people) concerning a major life event, an experience, or a situation. This event or experience is the "phenomenon" or phenomena that makes up the "P" in IPA. These phenomena may range from relatively common events – such as motherhood or being involved in a car accident – to those which are extremely rare – for example, someone's personal experience in a refugee camp. So, IPA is a great choice if your research involves analysing people's personal experiences of something that happened to them."*

The unstructured interviews gave the researcher an insight on how the informal business operators felt, and this assisted the researcher a broad understanding of the challenge at hand. It should be noted that the interviews were conducted with the informal business operators who were operating illegally.

The selection of the type of analysis used was guided by the research objectives and questions to be answered.

3.4 Online quantitative passenger survey

- Respondent recruitment/sampling

The survey was directed to people that have used and are currently using public transport in Harare keeping in mind that the topic of research was only limited to Harare. The purposive non-random sampling was applied in the recruitment of respondents. The social media platforms included Facebook, LinkedIn, and WhatsApp. It was easier to follow up and send reminders on the platforms. A total of twenty-three individuals responded to the survey.
Study participants were selected based on the questions that were guiding the research. The transport problem at hand has an impact on the public transport users. The participants identified were the commuters that use the public transport system from home to the city centre and vice versa.

- Data collection

The data was collected using research instruments or tools. A survey was conducted using a questionnaire on an online platform called the Survey Monkey. The link generated on the Survey Monkey platform to access was sent to people through social media platforms. The questionnaire was completed on an average of three (3) minutes and comprised of fifteen (15) questions. The questionnaire sought to find answers from commuters that made comparison between the ZUPCO and the '*mushika shika*' in terms of the quality of service. The questions ranged from trip purpose, origin, and destination, waiting time, costs, safety, security, and comfort, travel time. These questions were well structured to solicit data that could be useful in determining the impact of banning '*mushika shika*' and encouraging the use of ZUPCO buses and ZUPCO commuter omnibus. The commuters' responses assisted the researcher to get an understanding of how the commuters were affected by the ban of the '*mushika shika*' in Harare.

- Data analysis

The responses from commuters were in both quantitative and qualitative format. Four questions were falling in the qualitative approach and the other eleven fall into the quantitative data. It became imperative that the quantitative research data analysis be used for the analysis of

numerical data. Quantitative data was analysed using basic statistics. Descriptive statistical analysis was used for the quantitative data collected (Warren, 2020).

The type of data collected was classified as discrete data because the values could be counted in whole numbers. The analysis was conducted in the following steps (Cornell, 2022). The graphic illustration on Figure 5 below summarises the quantitative data analysis steps undertaken in this study.

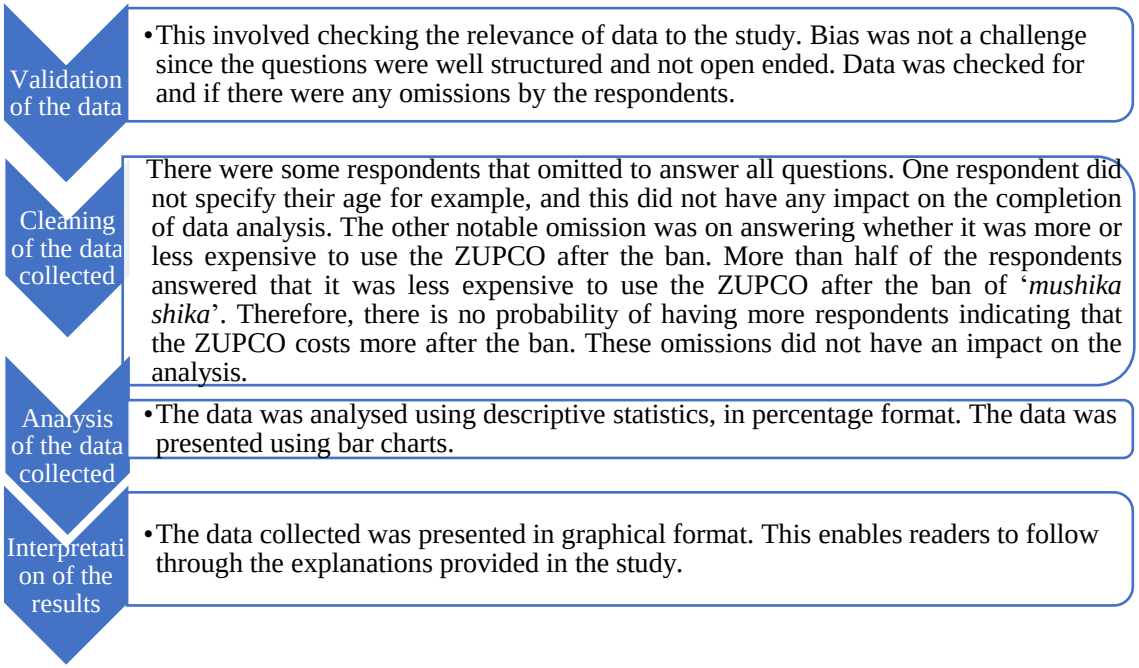

Figure 5. Quantitative data analysis steps

3.5 Site observation

- Data collection

Non-participative observation. This was a scenario where participants were not involved in the research study. The author took it upon themselves to observe the behaviour of both the formal and informal public transport operators in the city of Harare. The commuters' behaviour was also observed. The initiative to observe behaviour was meant to substantiate and complement the findings of the interviews and gain more insight in the study. The observations were undertaken over a seven-day cycle that is from Sunday to Monday in the month of August 2021. On each day participants behaviour were monitored in the morning-peak, afternoon-off peak, and evening peak hour. The observation hours in the morning peak

were 7-8am, off-peak and evening peak hour 4-6pm. The researcher had an opportunity to take notes of the activities that were happening on each day and photographs that have been added in this report.

- Data analysis

The type of data collected was non-numerical, therefore it was descriptive. The analysis was conducted in the following manner. Summary of observations during the morning and afternoon peak was recorded, and these observations focused on safety, comfort, security, and reliability of the public transport that was available. A summary of observations was also conducted off-peak. The observations for both the peak hours and off-peak hours were analysed to document the findings and draw conclusions. It should be kept in mind that this method of observation was conducted to augment the primary data collected through the interviews and questionnaires. Photograph 6 shows a man who is leaning against a '*mushika shika'* vehicle waiting patiently for commuters. During off-peak hours it takes up to an hour to fill all the seats in the '*mushika shika'* vehicle prior to it departing from its origin.

Photograph 6. Mushika shika driver standing next to his car waiting patiently for commuters off-peak in Harare (Kutshwa, 2021)

3.6 Conclusion

This chapter detailed the types of data analysis used for this study and steps undertaken to manage data before analysis. There were two types of data collected which fell into both the quantitative and qualitative group. The limitations identified during the analysis emanated from incomplete responses from the questionnaire that was completed by commuters. However, this was minor as it did not have an impact on the study objectives.

4. RESEARCH FINDINGS

4.1 Introduction

There are different methods of analysing data collected. These can be qualitative analysis or quantitative analysis. The use of words to analyse represents the qualitative analysis which is identifiable by the use of words. Data was analysed to get an overview of the outcome of the study. Analysis was conducted to identify patterns that enabled the researcher to decide if the objectives of the study have been achieved. The quantitative analysis entailed examination of numerical data collected from the commuters.

The qualitative study aimed at the analysis of the perceptions and views of the commuters, *'mushika shika'* owners, commuter omnibus operators, and formal public transport operators. This study was focused on objectives and was not hypothetical (Adams et al., 2020). The table below illustrates the differences between a quantitative and qualitative study. This illustration was used as a guidance toward selection of the analysis methods that were used.

Table 2. Comparison of qualitative and quantitative study (Elkatawneh, 2016)

Description	**Qualitative Study**	**Quantitative Study**
Hypothetical or not	Focuses on exploring ideas and formulating a theory or hypothesis	Focuses on testing theories and hypotheses
Data collection methods	Non numerical data collected through interviews, documents like newspaper or journals etc., observation and audio-visual materials such as videos or audio	Numerical data collected through structured questions
Presentation of data	Mainly expressed in words. Thick description[2].	Normally expressed in the form of numbers, graphs, and tables
Number of participants	Requires few respondents	Requires many respondents
Type of questions	Open-ended questions that cannot be answered with a	Closed (multiple choice) questions are normally used to collect the data

[2] "Thick description refers to the researcher's task of both describing and interpreting observed social action (or behaviour) within its particular context." (Ponterotto, 2006:543)

	yes or no and the responses are normally lengthy	
Key terms	Involves development of an understanding, context, complexity and is subjective	Involves procedures such as testing, measurement, objectivity, replicability

4.2 Impacts on passengers

4.2.1 Demographics of respondent sample

The data trends were recorded for the respondents who participated in the survey. The data trends showed the age range, gender, and the months in which the respondents participated in the survey.

Table 3. Ages of respondents

Respondent age	Count of Respondent	Percentage
18-24	1	4%
25-34	14	61%
35-44	6	27%
45-54	1	4%
(blank)	1	4%
Grand Total	**23**	**100%**

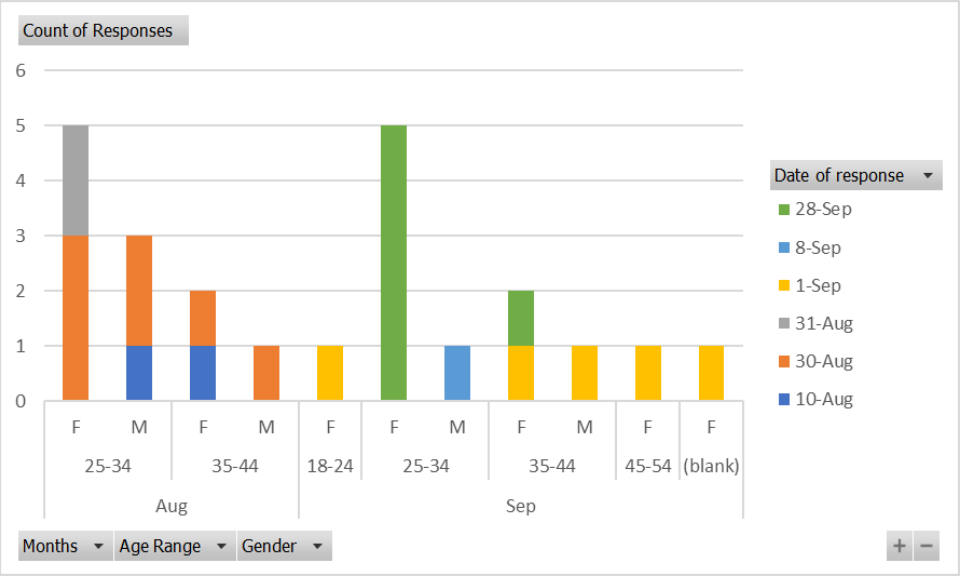

Figure 6. Response trend chart

The trends shows that most responses were collected from participants in the age 25-34, which accounted for sixty-one percent (61%) of all the respondents. This may be due to ease of access to the social media platforms, given that the request for the survey was announced on social media platforms. Seventy-four percent (74%) of the respondents were females and twenty-six percent (26%) were males.

4.2.2 Use of ZUPCO by commuters after the ban of 'mushika shika'

'*Mushika shika*' was banned by GoZ and the ZUPCO buses and franchise commuter omnibus were allowed to operate. The ban was implemented to contain the spread of COVID-19 in Harare. The ban contributed to the partial eradication of safety and security risks that were emanating from the presence of '*mushika shika*.'

After the ban of '*mushika shika*,' did commuters use the ZUPCO? What were the trends? Sixty-one percent (61%) of the respondents indicated that they do not use the ZUPCO after the ban of *'mushika shika'* and thirty-nine percent use the ZUPCO. Therefore, most people have not moved to commuting with the ZUPCO after the ban of *'mushika shika.'* The data collected was centred around the following attributes (i) affordability (ii) travel time (iii) comfort.

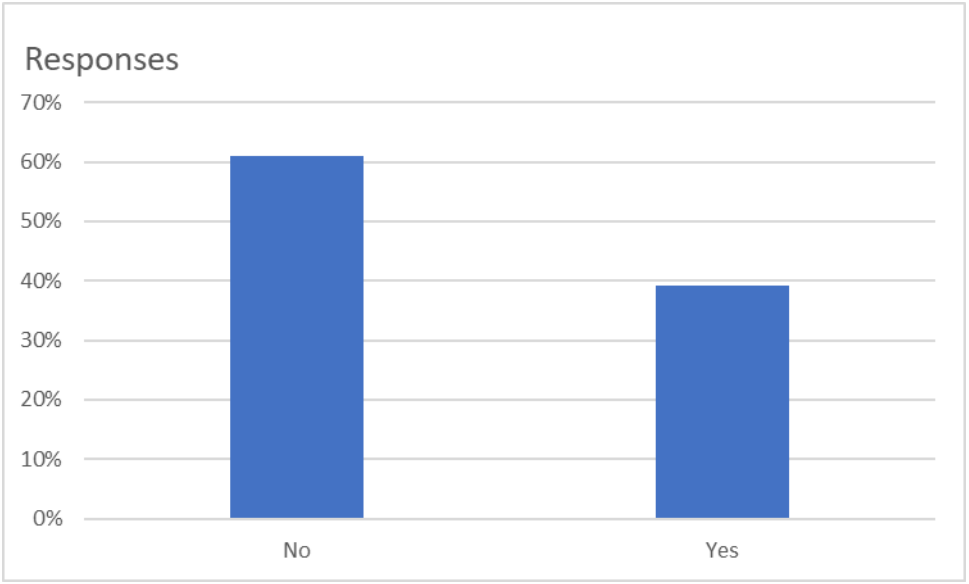

Figure 7. Do you use ZUPCO after the ban of 'mushika shika'

The commuters' perception shows that '*mushika shika*' was not a comfortable mode of transport before the ban was implemented. Refer to Figure 7. However, commuters still opted

to use '*mushika shika*' after the ban as indicated by sixty-one percent (61%) of the respondents. Passengers tend to be packed in these small cars and in some circumstances, which leads to overloading, culminating to a safety risk.

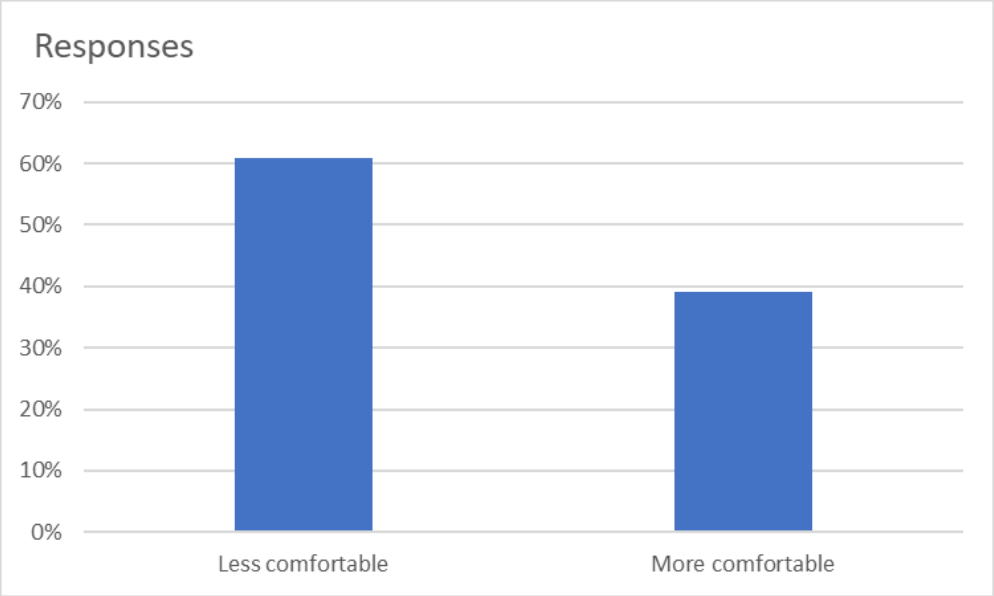

Figure 8. Was it more or less comfortable to travel with the 'mushika shika' to and from work before the 'mushika shika' was banned

4.2.3 Use of 'mushika shika' after the ban

Clearly data collected shows that sixty-five percent (65%) of the twenty-three commuters that were interviewed are still using '*mushika shika*' leaving out thirty-five (35%) that are no longer using '*mushika shika*' since the ban. It is evident that '*mushika shika*' was still operating after the ban.

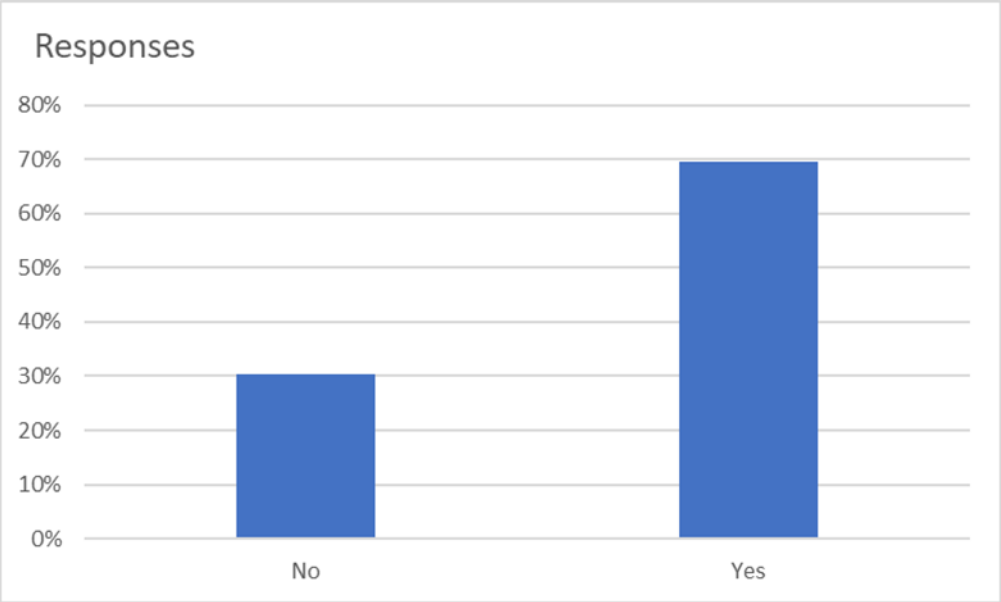

Figure 9. Do you still use 'mushika shika' after ban

4.2.4 Travel time after the ban of 'mushika shika'

The travel time has increased after the ban of *'mushika shika'*. This means that after the ban *'mushika shika'* trip times were longer. See Figure 10. Is the travel time more or less after ban of *'mushika* shika'. *'Mushika shika'* were no longer fully operational due to fear of getting the vehicle impounded or being fined by ZRP or even getting the commuters fined. The operators were using longer routes to dodge the ZRP roadblocks, hence the travel time would increase. In instances were commuters moved from using '*mushika shika*' to ZUPCO, the waiting time to board and travel time for ZUPCO are longer compared to *'mushika shika'* which carries four to six people. It should be noted that the '*mushika shika*' are smaller vehicles that fill up quickly and they travel at faster speeds compared to a ZUPCO bus or commuter omnibus.

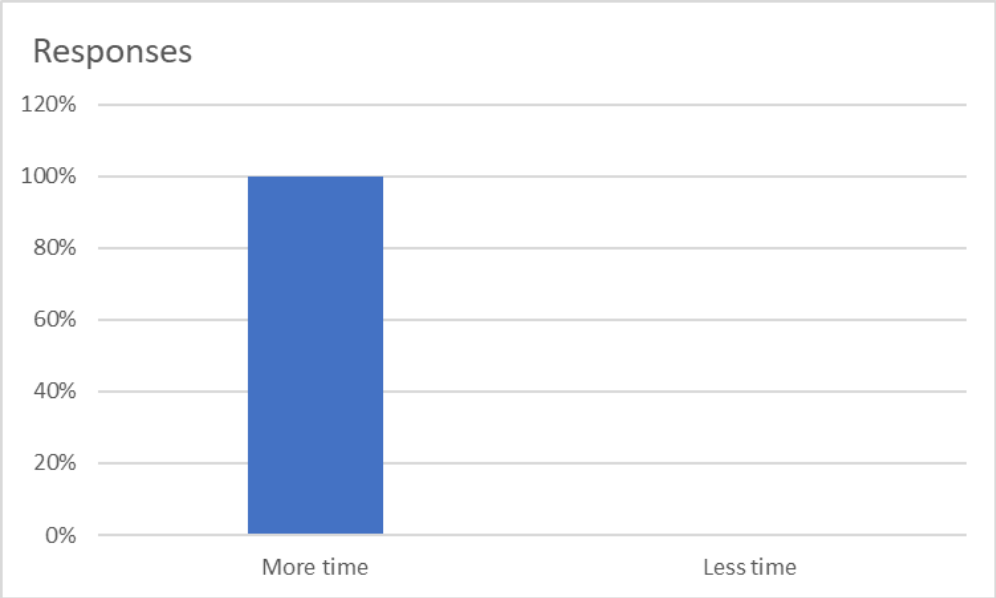

Figure 10. Is the travel time more or less after ban of 'mushika shika'

4.2.5 Cost of travelling on ZUPCO services after the ban of 'mushika shika'

The data trend on Figure 11. Does it cost more or less to use ZUPCO after the ban of 'mushika shika' Figure 11. shows that the ZUPCO costs less for most commuters after the ban of '*mushika shika*'. However, it should be noted that most of the commuters that responded are not using the ZUPCO despite it being less costly than the *'mushika shika.'* Sixty percent (60%) of the respondents have reported that the ZUPCO costs less, fifteen percent (15%) have indicated that it costs more to use the ZUPCO and unfortunately twenty-five percent (25%) omitted the question. The omission does not hinder one from drawing a conclusion with regards to the ZUPCO cost after the ban. It is also highly likely that some of the respondents may have attempted to use the ZUPCO hence the ability to compare the costs before and after the ban of '*mushika shika*.' Take note that the ZUPCO came back into operation after the GoZ banned the informal and unregulated operators.

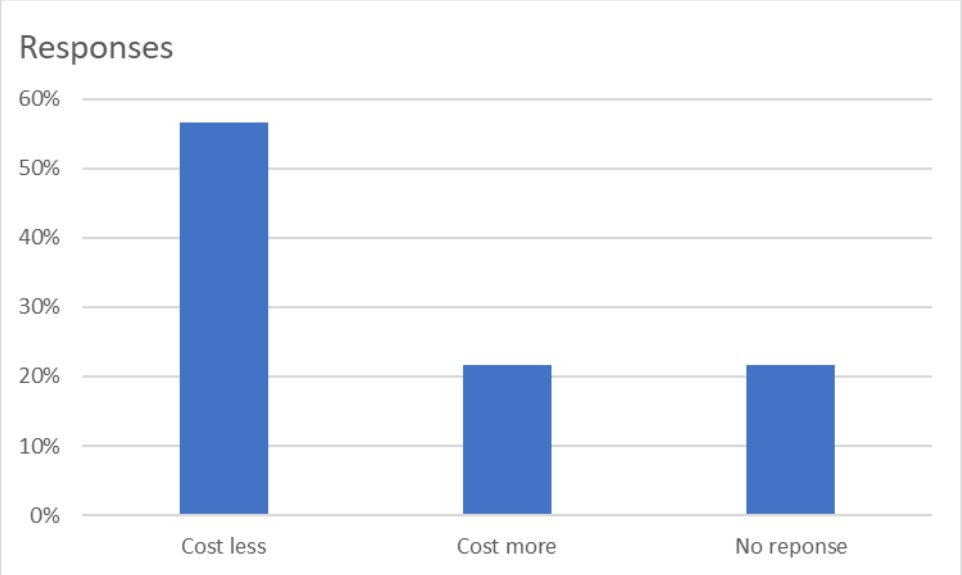

Figure 11. Does it cost more or less to use ZUPCO after the ban of 'mushika shika'

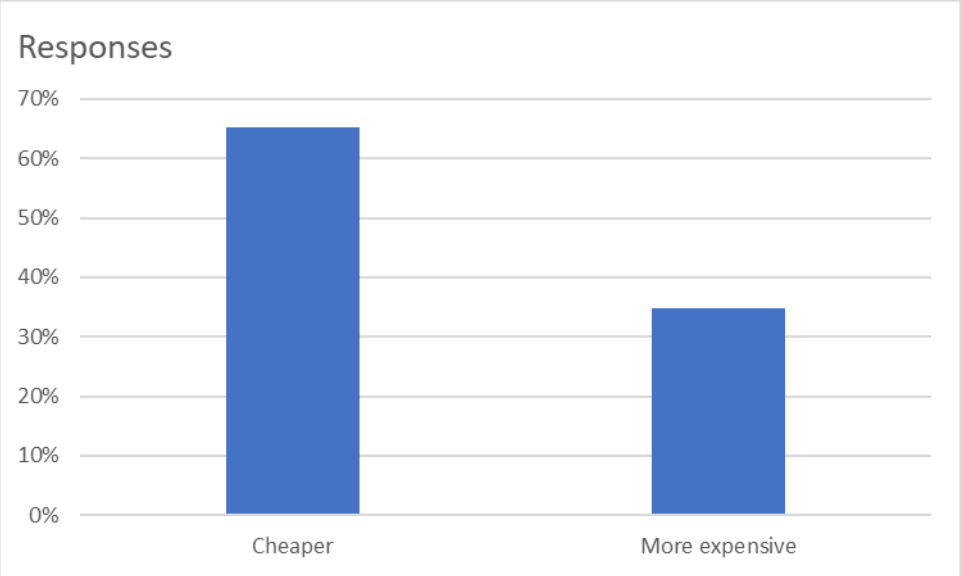

Figure 12. Was it cheaper to use 'mushika shika' before the ban

Figure 11. Does it cost more or less to use ZUPCO after the ban of *'mushika* shika' and Figure 12. Was it cheaper to use *'mushika* shika' before the ban shows that it is was expensive to use the '*mushika shika*' in comparison to the ZUPCO fares published before and after the ban. ZUPCO fares were made cheaper to deter the commuters from using the '*mushika shika.'* The GoZ's objective was to reduce the cost of transport for the public (Mahanya, 2019). The commuters have been using '*mushika shika*' because there was no adequate regulated formal

public transport. However, it should be noted that sixty-five percent (65%) of the commuters that responded are not using the ZUPCO despite it being less costly than the fares charged by the *'mushika shika'* even before they were banned. The ZUPCO was deemed to be more affordable than '*mushika shika*' before and after the ban of '*mushika shika.'*

It is especially important to note that in the space of time, the highly unstable economic conditions have an impact on the responses from commuters and operators. As this study report was being compiled ZUPCO increased its fares (New Zimbabwe, 2022). This may have been inevitable given that the revenue was reported to be less than the operational costs. How has this impacted the cost of travelling with '*mushika shika*'? From observation of a researcher media discussions reveal the following comment from a '*mushika shika*' owner who is still in operation after the ban.

"*A relief for us mushika shika operators*"

The logic behind price increase of '*mushika shika*' emanates from the fact that they travel faster, they have shorter trip times because they carry less passengers. They are arguing that they provide a better service. A comment from another '*mushika shika'* owner is quoted below.

> *"Mushika shika travels faster and cannot charge the same with a bus that takes more than one hour to reach a destination whilst carrying more than 100 people with too many bus stops."*

4.2.6 Walking time after the ban of 'mushika shika'

The walking time increased after the ban of *'mushika shika.'* Seventy-eight percent (78%) of the respondents have indicated that their walking time has increased since the ban of '*mushika shika*.' The '*mushika shika'* operators fear being fined and having their vehicles impounded if the ZRP catches them in the city centre. This is a negative given that commuters must put more effort to undertake a trip because the '*mushika shika'* will have to wait for commuters far from the CBD or they would drop off commuters far from the CBD.

Figure 13. More or less walking after the ban of mushika shika

4.2.7 Morning peak observations in Harare

The researcher decided to enforce the study by taking some time in the public domain and observe the behaviour of commuters and public transport operators. During the observation period the researcher witnessed the challenges being faced by commuters and operators. Commuters from the high-density suburbs that are further from town were struggling to get transport to commute from home to the city centre. During the morning peak some commuters had to wait for more than an hour to get a ZUPCO bus, given that several buses may pass a certain bus stop whilst its already full. The '*mushika shika*' were not an option since the ZRP mounts roadblocks on the route from the high density to the city centre during peak hours. If the '*mushika shika*' was caught the vehicle would be impounded and the passengers would be asked to pay a fine as well by ZRP. In cases, the '*mushika shika*' would take other routes however commuters will be dropped off far from their destinations. They would be forced to walk the rest of the way into the city centre and places of work in the proximity of the city centre. This is related to the question posed to commuters with regards to the time spent walking. The survey conducted showed that seventy-eight percent (78%) of the respondents answered that they must walk longer distances due to the ban of '*mushika shika*'.

4.2.8 Evening Peak observations in Harare

Long winding queues were experienced at the city's bus terminus during the evening peak hour as well. People were queuing at the bus terminus for more than two hours in a congested environment and it was evident that it was not safe from crime and COVID 19. Women and children are left vulnerable in such scenarios. During the peak hour, the captive users had no choice but to wait for the ZUPCO fleet that was hardly coping with the volumes of passengers. '*Mushika shika*' could not operate due to the heavy presence of the ZRP that would be manning the city roads especially during peak hour. The passengers concerned in this scenario included man, women, school children and persons living with disabilities. Passengers were also being fined for boarding '*mushika shika*' hence they had to wait for the inundated ZUPCO.

4.2.9 Off-peak observations in Harare

During the off-peak hours, the volumes of commuters decreased significantly and the ZRP seemed to be less vigilant. The '*mushika shika*' would be seen conducting business cautiously especially for those commuters that required transport from one point to another in the city centre. It should be noted that '*mushika shika*' vehicles have similarities with the normal private cars in Harare. The similarities are the make and type of vehicles. '*Mushika shika*' are easily identified through their operation behaviour such as parking, driver behaviour etc.

4.3 Impacts on 'mushika shika' operators

4.3.1 'Mushika shika' operations in Harare

'*Mushika shika*' operators were interviewed virtually, and the data collected was classified as qualitative data. The interview questions were structured such that the researcher could get an insight of the operational environment before and after the ban of '*mushika shika*.' The operators highlighted that they had been facing challenges well before the ban of '*mushika shika*.' It has been noted earlier in the report that '*mushika shika*' are illegal taxis and have never been regulated by the GoZ since their appearance in the transport sector. During the interview, the operators highlighted that the ZRP and other law enforcement agents were taking advantage of the operators, because that they were operating illegally. During their operations

if they came across the law enforcement agents, they would be forced to pay a bribe so that they could avoid getting their vehicles impounded or paying hefty fines. Loss of a vehicle would mean that the business owner and other employees would lose a source of income. So, the best option would be to bribe the police and continue with operations. It was during this interview that it was also noted that a '*mushika shika*' taxi business can employ up to three persons per vehicle. The three people include a driver, a conductor and a '*hwindi*.' A '*hwindi*' means a person whose sole purpose is to look for commuters and usher them to the car. Sometimes, this car may be parked out of sight to prevent the police from apprehending the operator.

4.3.2 Absence of dialogue between GoZ and 'mushika shika' operators

The '*mushika shika*' operators felt strongly that the GoZ should have given them a platform to air their views and concerns with regards to their business operations. They indicated that they have formed their own associations as informal business operators where they discuss matters associated with public transport matters. These platforms would have afforded a dialogue between the business operators and the GoZ. According to the interviewees, petitions to operate legally would have been put forward and maybe this would allow for a favourable operating environment for the operators, commuters, and regulated transport operators. They believe that the decision to ban other modes of transport was a political strategy meant to benefit specific business operators and the elite in the community.

4.3.3 Commuter safety

Commuter safety was cited as a concern by the '*mushika shika*' operators. Most commuters would be packed in small vehicles that are not road worthy to earn as much income as possible per trip undertaken. These vehicles are not regulated in terms of safety features and operations. There are no controls in place to mitigate incidents and accidents that may occur during day-to-day operations. Several '*mushika shika*' vehicles are notably road unworthy. The operators indicated that the revenue earned was not sufficient to cover operational costs.

4.3.4 Survival of 'mushika shika' after the ban

The arrival of COVID-19 intensified the challenges that were experienced before the ban. All private transport modes were banned by GoZ as an intervention to curb the spread of COVID-19. Commuter omnibuses were also banned from operating to curb the spread of COVID-19.

After the ban of '*mushika shika*' the transport woes continued in Harare. The '*mushika shika*' business was a source of income for a substantial number of families, which led to loss of income. The unemployment rate in Zimbabwe is remarkably high and most people have resorted to being self-employed. *'Mushika shika*' is one of the common informal businesses that was being undertaken in Harare to earn a living. Loss of income has an impact on the society which is detrimental. The situation becomes explosive in an ailing economy and brings about social and political instability. If people cannot afford to get basic meals and other necessities, they may even resort to crime. According to the (African Development bank, 2021) Zimbabwe is in an economic recession. According to the World Bank the inflation rate was 558,56% and at the time of compilation of this report prices have been spiralling out of control. See Figure 14. Inflation, GDP Deflator linked series (annual %) (World Bank,2020). The job market retracts if the economy is unhealthy, thus people opt for other means to survive.

Figure 14. Inflation, GDP Deflator linked series (annual %) (World Bank,2020)

'*Mushika shika*' are still operating after the ban as they have no other source of income and need to make a living. From the passenger survey conducted it is evident that the greater percentage of commuters are still using '*mushika shika*' despite the ban.

The operators highlighted that the decision to ban '*mushika shika*' has led to a transport sector where there is no competition. Therefore, the service being offered to commuters who are captives is extremely poor. If the '*mushika shika*' operators were offered an opportunity to operate in an orderly manner under certain rules and regulations that would have benefitted both the commuters and the operators. The operators have noticed that commuters are suffering as they must wait for a bus for periods exceeding two hours. They have witnessed that the ZUPCO bus fleet is unable to meet the demand of the commuters. The ZUPCO buses do not have a schedule, which means commuters are always running late. The buses are deemed to be road unworthy by observation and not safe for use by commuters. The public transport infrastructure has been condemned as well as it does not provide adequate shelter for commuters that have to que for prolonged periods. Some of the *'mushika shika*' operators abandoned the transportation business and have resorted to selling goods from their cars as an income alternative.

4.4 Impacts on commuter omnibus operators

4.4.1 Existence of commuter omnibuses in the informal public transport sector

The commuter omnibus operators that were interviewed to get an insight of any indirect or direct impacts caused by the ban of '*mushika shika*' as well. Commuter omnibus have been present in the transport sector for a prolonged period. The interviews were held in the local language Shona and in English. Responses provided in Shona were translated to English for the purposes of authoring this report. It is apparent that before the ban of '*mushika shika*' commuter omnibus operators had their own share of challenges as the informal public transport operators. Former and current commuter omnibus operators clearly highlighted that operating commuter omnibuses in Harare was a viable form of business. A former commuter omnibus owner who was interviewed indicated that she started her business in the year 2006. She had a fleet of four vehicles and there were forums in which stakeholders would have dialogue and agree on the operational guidelines. This created order and she alluded that the Vehicle

Inspection Department was effective. There were specific loading zones for the commuter omnibus and there were designated routes based on the permits that were issued to them by the CoH.

4.4.2 Ban of commuter omnibus on the streets of Harare and the challenges faced by commuter omnibus operators

The commuter omnibus operators clearly indicated that they have faced numerous challenges before and after the ban of '*mushika shika*.' Some of the challenges cannot be attributed to '*mushika shika*' as they have been in existence well before the arrival of '*mushika shika*.' There was a presence of commuter omnibus that were operating illegally. These commuter omnibus operators were bribing the law enforcement agents and, in this case, ZRP was mentioned. There was lawlessness in this informal transport sector. This led to congestion at the taxi rank, use of illegal routes, dropping off and picking up commuters at places that were not designated. The '*mushika shika*' came into the picture and there was competition already between these two modes of transport and it was intense given that all these business owners wanted to earn a living and had no other source of income. As mentioned earlier in this report ZRP would continuously clash with commuter omnibus operators. Several incidents have been reported in Harare CBD were ZRP would chase commuter omnibus and endanger the life of motorists and pedestrians. The commuter omnibus drivers would opt to take routes that are dangerous and not trafficable to escape from the police chasing them. The situation was dire as police would resort to throwing spikes in front of moving vehicles to forcefully stop commuter omnibus and this would damage vehicles and in worse cases accidents. This was a cause of concern and solutions were required to ensure the safety of the public (Sithole, 2020) authored an article with regards to the use of spikes and how they were endangering commuters. Several articles have been written in newspapers and at some point, the court ordered the ZRP to desist from the dangerous acts of using spikes. The operating environment was dangerous and made it exceedingly difficult for the commuter omnibus operators to earn an income and operate safely. The commuter omnibus operators highlighted that most of the revenue was spent on bribes, which meant that there was no reasonable income for operational expenditure. This type of business environment forced some of the commuter omnibus operators to remove their fleet and seek other means of earning a living.

Commuter omnibus operators were instructed to stop operating by the GoZ to curb the spread of COVID-19. They were later given an option to operate as ZUPCO franchises. This was an exceedingly difficult decision according to the commuter omnibus operators who were not consulted about the decision undertaken by GoZ. Their livelihoods were completely changed drastically. During the interview it was indicated that the process of operating as a ZUPCO franchise was not transparent. One needed to be well connected to be part of the franchise.

It should be noted that in addition to the ZUPCO buses fleet, there are ZUPCO commuter omnibus which are in a franchise agreement with ZUPCO. However, these commuter omnibuses are not significant in number. The ZUPCO commuter omnibuses do not complement the ZUPCO bus fleet, given that most operators have decided to stop operating as they feel that the operational costs are extremely high. If a commuter omnibus owner got the opportunity to operate as a ZUPCO commuter omnibus, there were challenges such non accessibility to the subsidised fuel and receiving payments extremely late. Due to corruption the fuel was misdirected and used on long distance vehicles instead of the vehicles that were registered to operate locally. ZUPCO commuter omnibus owners have indicated that the model used by ZUPCO does not benefit businesses with a small fleet. If one is in an agreement with ZUPCO they are expected to cash in all the day's revenue at ZUPCO designated offices. ZUPCO is then expected to reimburse the commuter omnibus operators monthly. The challenge being faced is that the payments are remitted to the commuter omnibus operators after a period of three to five months. According to the business owners this becomes exceedingly difficult as they need cashflow to enable them to continue running their businesses. For example, a commuter omnibus develops a mechanical fault, and it must be repaired. The owner is expected to pay from his/her pocket to repair the vehicle, since he/she signed a contract with ZUPCO that the commuter omnibus will be providing services to commuters. This commuter omnibus owner has a dilemma in that he/she was not paid and must await payment three to five months down the line to earn the money that he used to repair the commuter omnibus. The business operator also has other costs such as salaries, that he must pay from his pocket. A commuter omnibus operator gave this illustration. This deterred the commuter omnibus operators, and they were forced to terminate contracts, which meant that the urban population was left in a dilemma, which was lack of the much-needed public transport. Many other commuter omnibus operators have done the same, hence the decrease in number of vehicles in the ZUPCO fleet which has negatively impacted public transport. In the

absence of reliable public transport commuter omnibuses, commuters resorted to travelling with '*mushika shika*.'

4.4.3 Absence of dialogue between GoZ and commuter omnibus

Commuter omnibus operators have highlighted that they have not been given platform to air their grievances and negotiate a more feasible model in terms of operating as private businesses in the public transport. The ban of commuter omnibuses was also done without any consultation, and this led to a loss of income for both the employer and the employees.

4.4.4 Illegal operation of commuter omnibus in Harare

Due to the hardships in Zimbabwe the commuter omnibus still operates illegally, as they need to earn a living. This has led to dangerous clashes with the ZRP. In some instances, windscreens are broken when they are told to stop vehicles and comply with orders given by the police. The commuter omnibuses also break into a chase with the ZRP upon refusal to stop when they are caught operating without a ZUPCO permit. These incidents occur whilst there are commuters in the vehicle which compromises safety.

4.5 Impacts on ZUPCO

4.5.1 Challenges faced by ZUPCO

ZUPCO is the only formal public transport operator in Zimbabwe. Given that all other informal public transport were banned, ZUPCO became the sole provider of public transport in Harare. The public transport operator indicated that the '*mushika shika*' in their large numbers were congesting the city of Harare streets and this made it difficult for buses to manoeuvre in their designated routes. ZUPCO is unable to collect substantial revenue as it is in competition with '*mushika shika*.' The *"sharing"* of commuters is hampering the entity's operations. From the passenger responses it can be noted that ZUPCO is not a preferred mode of transport due to long travel times and erratic schedule. It is an unreliable form of transport. '*Mushika shika*' offers flexibility, therefore reducing travel time significantly. The smaller vehicles tend to move faster and pick up commuters close to stations and drop them off close to their

destinations. This also means that there is less time spent walking. The ZUPCO unfortunately does not offer this flexibility which is a convenience that makes *'mushika shika'* more attractive to the commuters. It was established during this study that *'mushika shika'* is still in use despite the ban.

4.5.2 Interventions executed by ZUPCO after the ban of 'mushika shika' to prevent competition

To this effect ZUPCO put in place interventions to enable them to operate without any hindrances, such as congestion in the city of Harare. These interventions included heavy ZRP presence in the bus terminus. ZRP was assisted by the CoH law enforcement agents to maintain order. If a '*mushika shika*' vehicle is caught operating, they would be heavily fined by any of the following law enforcement agents; CoH, Vehicle Inspection Department (VID)[3] , ZRP or ZINARA[4]. The heavy fines are meant to deter the '*mushika shika*' from operating in Harare. The GoZ decided to enable four entities to act towards the '*mushika shika*' and prevent them from operating. This means that quite a lot of resources have been put across board in a bid to halt all the '*mushika shika*' operations. This has not been completely successful due to corruption that is rampant in Harare. The officials tasked to enforce the law are taking bribes, which they are offered by *'mushika shika'* operators. The operators have resorted to paying bribes to the CoH, Vehicle Inspection Department (VID), ZRP or ZINARA officials so that they can continue with their operations, since this is their only source of income. The availability of '*mushika shika*' attracts commuters who keep on using this mode of transport instead of ZUPCO buses that have been proved to be unreliable in this study.

4.5.3 ZUPCO vs Passenger demand

The response provided by ZUPCO revealed that the public transport operator cannot meet the demand of commuters due to their small fleet. They admitted to the fact that *'mushika shika'*

[3] Government Department that operates under the Ministry of Transport and Infrastructural Development. It is mainly responsible for issuing out driver's licences and examination of vehicles for road worthiness.

[4] The Zimbabwe National Road Administration (ZINARA) is a corporate body that was established in terms of the Road Act (Chapter 13:18). The body was established in 2002 in line with Government's commitment to prioritize the enhancement of a good road network system throughout the country. The mandate of ZINARA is to fix, collect, disburse road user charges, and mobilize revenue for roads development and maintenance. It also encompasses the monitoring of such funds that would have been disbursed for road maintenance to road authorities. (ZINARA, 2022)

was a complementary mode of public transport, even though the small vehicles caused congestion on the streets of Harare. The failure to meet the demand is evident through the fact that commuters wait for prolonged periods of time before they can get a ZUPCO bus, and they are always getting to their homes extremely late after a day's work. These sentiments were also mentioned by the *'mushika shika'* operators that observe and interacts with commuters daily.

4.5.4 ZUPCO's future plans to improve public transport challenges

Given that ZUPCO is unable to meet the demand, it was prudent to find out from the operator if they had any solutions to the problems being faced. There was indication that they would like to provide shuttles to cater for the few emergency travellers in Harare. In the researcher's point of view this is seen as a temporary solution, and it may not be feasible given the large numbers of commuters that have been observed at bus terminals. The following question can be asked. How would ZUPCO identify the emergency traveller in a large group of commuters who are anxiously waiting to go to work or to their homes? ZUPCO indicated the need to use advanced Information and Communication Technologies (ICT) systems to improve their services to their customers. The introduction of ICT systems would require the staff to be trained and the systems should also be relevant to the transport problems being faced in Harare.

ICT systems in the transportation field have been known to assist with planning, collection of travel data, making payments, observe movement of fleet off site, analyse travel patterns, make comparison in the transport costs based on the mode and improvement of health and safety (Gossling, 2020).

4.6 Conclusion

The responses provided by the commuters show that the ZUPCO is an unfavourable mode of transport. This conclusion is attributable to the fact that despite the ban of *'mushika shika'* the public transport users are still using *'mushika shika'* because it is more convenient. *'Mushika shika'* is more flexible and has far much less trip times in comparison to the ZUPCO buses and commuter omnibus. Even though ZUPCO was cheaper during the period in which the survey was conducted, commuters still preferred to use '*mushika shika*.' The ZUPCO buses fleet does

not meet the demand and is unreliable, therefore commuters are left with no option but to depend on the *'mushika shika.'*

Despite the ban of '*mushika shika*' and the introduction of ZUPCO buses and commuter omnibus clearly has not resolved the public transport woes. The '*mushika shika*' operators have resorted to continue providing public transport services despite operating illegally. Lack of employment and the urge to earn a living has been the main push factor for '*mushika shika*' to continue operating. The presence of '*mushika shika*' has also given the commuters a better public transport option though not all quality service attributes were not met. The movement of '*mushika shika*' is limited therefore the congestion has decreased in Harare.

The commuter omnibus operators have faced challenges due to the presence of '*mushika shika*.' There was competition between the two modes of transport, despite being legal or illegal operators. '*Mushika shika*' was banned but it is still operating and seems to be more popular with the commuters, which means that there is sharing of commuters, thus a decrease in commuters for the commuter omnibus operators. Apart from the presence of '*mushika shika*' COVID-19 did not make the situation any better, it made it more difficult for the commuter omnibus to operate as they were banned from operating as unregulated transport operators. The stringent operating conditions under ZUPCO were difficult for most operators and had to abandon the business. The ban of '*mushika shika*' has not had an impact on the commuter omnibus operators in any way.

ZUPCO was struggling in meeting the demand of commuters. A travel demand management system that is sustainable is a need. The public transport entity is facing challenges that have made it succumb to the use of old train rolling stock. These train rolling stock have proved to be unpopular with the public. The ban of '*mushika shika*' has severely impacted the service being offered to commuters.

The demand for public transport was still high and the GoZ having realised that there was a public outcry it decided to recommission some train rolling stock that were commissioned in the 1960s during the colonial rule according to the media reports (Ndoro, 2021). The introduction of the commuter train in September 2021 was meant to ease the public transport demand that was being faced by the Harare residents. The train was being operated by the National Railways of Zimbabwe (NRZ) in partnership with ZUPCO (Dube, 2021). This train

was servicing three bus rail routes which were Mufakose, Ruwa and Tynwald (Zhakata, 2021). It was reported that the operational costs are higher than the revenue costs, which culminates to a loss. The enginemen are provided by NRZ and the conductors by ZUPCO (New Zimbabwe, 2021).

The emergence of train rolling stock however has not resolved the public transport problems being experienced in Harare as they do not service all the areas requiring safe, affordable, reliable, and comfortable public transport. The rail infrastructure is dilapidated and not well equipped to service commuters. There are no platforms in some areas for commuters to embark or disembark along the routes. Photograph 7 shows a disturbing scenario where there is a huge safety risk. If a risk assessment is conducted on health and safety the likelihood of a fatal accident is high, and this should be mitigated or avoided at all costs. There is no shelter and public toilets for the commuters as they wait for train. These are requirements for a functional rail station.

The railway infrastructure has not been maintained as these train rolling stock were not in use for a long time. The interior of the train rolling stock lacks comfortable seats and most of the fittings are old and rusty. According to the commuters, ZUPCO was not able to cater for the large volumes of people that needed transport daily.

The public transport industry in Harare is in a dire situation and the interventions implemented by the GoZ do not seem to be alleviating the challenges being faced.

Photograph 7. Commuters boarding and disembarking from NRZ-ZUPCO Bus Rail in the absence of platforms (New Zimbabwe, 2021)

5. DISCUSSION

The study conducted has successfully enabled the researcher to address to the questions posed at the beginning of this report to a considerable extent. Reference will be made to the questions posed in section 1.2 Objectives of the study. The patterns emerging from the data collected clearly show that there are serious public transport challenges in Harare and the rest of Zimbabwe. This has affected the formal and informal public transport operators. This is attributable to the unstable economy that has crippled a lot of economic sectors which includes the public transport sector.

5.1 Why did the GoZ ban 'mushika shika' in the Harare?

'*Mushika shika*' was banned in Harare to curb the spread of COVID -19. Their illegal operations automatically meant that they would not be able to adhere to COVID -19 regulations. The small vehicles were operating illegally congesting the city causing a public menace. This was a lucrative source of income for Zimbabweans residing in Harare. *'Mushika shika'* were affecting the public transport demarcated routes making it difficult for buses to manoeuvre. The presence of COVID-19 was seen as a good opportunity to do away with the illegal operators and informal modes of transport. The road behaviour of '*mushika shika*' was posing safety risks for the commuters and other road users as well.

5.2 What were the impacts of banning 'mushika shika' in Harare?

The ban of '*mushika shika*' clearly had a significant impact in the Harare public transport sector. It should be realised that impacts were both positive and negative. In this study the positive impacts, was reduced congestion especially in the CBD of Harare. During peak hour gridlocking was a common experience. The reduction of vehicles on the roads had a positive impact on the environment. The was reduction in carbon footprint and noise levels. Carbon emissions have contributed to global warming and transport planning advocates for the reduction of carbon emissions through sustainable forms of transport. Each member country of United Nations has a role to play in combating the climate change which has caused so many losses of human and animal life and destruction of infrastructure. Zimbabwe is a member country hence the need to make environmentally sustainable decisions. Goal thirteen states that

"*Take urgent action to combat climate change*" (United Nations Department of Economic and Social Affairs and Sustainable Development, 2022). A clean environment has health benefits as well. The reduced number of vehicles on the roads led to a reduction in travelling time for the road users making trips more comfortable and enjoyable. Less effort is spent moving from the origin to the destination. There was a reduction of vehicular collisions which improved safety of all road users especially in the city centre where the streets are narrow, and the geometrical features do not allow for large road spaces. Narrow spaces have a higher risk of crashes. This improved the safety conditions for all the road users in Harare.

The negative impacts caused indirect and direct suffering to the operators and the commuters. It cannot be over emphasized that there was a public outcry due to the ban of '*mushika shika*.' Commuters and operators have indicated that the passenger quality needs are poor. Passenger quality needs are measured by the following attributes (Bron and Hagen, 2014:255).

- Availability
- Safety and security
- Travel cost and time
- Convenience
- Comfort
- Experience

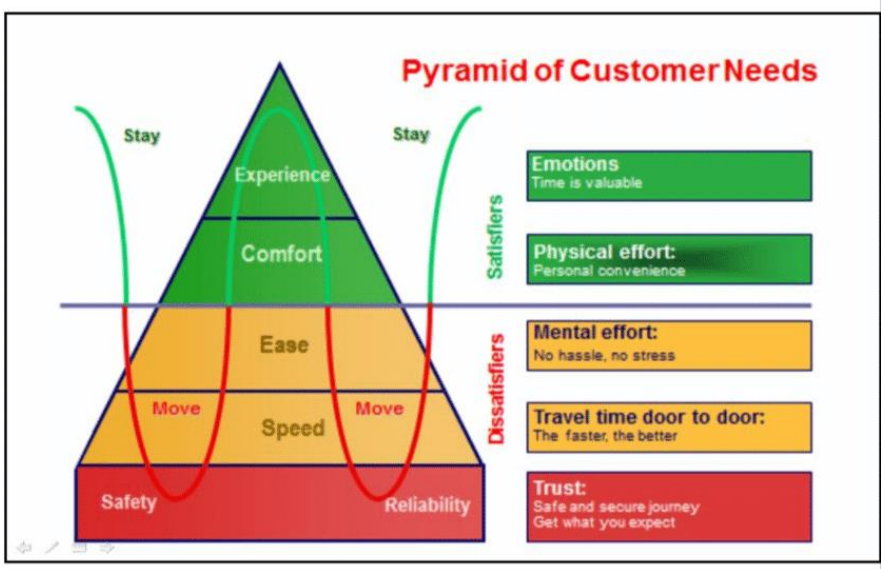

Figure 15. Pyramid of customer needs (Hagena and Brona, 2014)

The importance of these passenger quality needs differs between the choice users and the captives. The most important quality needs for the captive users are affordability, safety,

security, and time in that order. Safety and reliability are basic needs, and these are a "*prerequisite*". These can be seen to be at the base of the pyramid. Then speed is a deemed a "*principal customer need*" since passengers would prefer shorter trip times. Passengers consider these qualities first before others. See **Error! Reference source not found.**.

It was costly to travel with the ZUPCO in relation to time and effort required. Substantial time and effort was required to use the ZUPCO. The trips' purposes were for work and educational purposes and not for leisure purposes. This can be frustrating for the commuters since these types of trips are certainly time bound. The waiting time and riding time was long according to the reports provided during interviews and surveys conducted, the trip time was excessive and most of the fleet has aged and not safe for the passengers. Commuters must stand for long hours in crowded terminus, and this is a harbour for criminals, which is a security risk. The frequency of the ZUPCO buses was extremely low throughout the research period. There have been reports by interviewees of leaking roofs and commuters have been forced to use umbrellas inside moving buses. The ZUPCO buses were not using a schedule The ZUPCO buses were deemed to be unreliable as there were not operating on schedule. This was evident due to the long winding ques that were a norm after the ban of '*mushika shika*.' Commuters reported walking long distances to their places of work and school after dropping off from the ZUPCO. This has been a negative impact as well as they must spend on average more than an hour travelling to reach their destination. It cannot be overemphasized that the productive time is lost due to lack of convenient and inadequate public transport systems. Photograph 8 shows a group of commuters waiting for formal transport in Kuwadzana. The waiting time was ranging from thirty minutes to an hour on average during the morning peak hour.

Photograph 8 People waiting for transport from Kuwadzana to the city centre of Harare (Muronzi, 2021)

Due to the lack of reliable public transport commuters resorted to using other modes of transport. Photograph 9 shows a typical situation of commuters that are stranded and have to use other modes of transport. The photograph clearly shows that a lack of service may lead to a general loss of dignity in a society. There was no alternative transport, therefore it was necessary to compromise comfort, safety, and security. The researcher makes particular reference to a woman in the photograph who has no other option in terms of transport services. Women, children and the elderly are normally considered vulnerable members in a social set up. She is forced to endure a trip at the back of an open truck due to lack of proper public transport services. All humans have a right to dignity and as transport planners this is a crucial aspect to be considered as decisions are made to improve livelihoods through efficient public transport systems. These modes of transport were common during the evening peak hour when commuters are now finding other modes of transport to head back home. The availability of '*mushika shika*' was bringing relief to the public transport sector despite the shortcomings that *'mushika shika'* brought in the city of Harare.

Photograph 9 Stranded commuters including a woman climbing on the back of an open truck (ZimFact, 2021)

ZUPCO could not cope with the passenger demand. This was a significant impact and necessitated the recommissioning of old train rolling stock. The train rolling stock are more than fifty (50) years old having been commissioned for the first time in the 1960s in Zimbabwe which was then Rhodesia. The train rolling stock do not service the whole of Harare as the railway infrastructure has not been upgraded or maintained to cater for the public transport demands.

The loss of income by the '*mushika shika*' operators was the greatest impact to the informal public transport operator. A minimum of three (3) people were earning a living from a '*mushika shika*' vehicle. Research has identified that the economic conditions in Zimbabwe have driven these operators to offer services, given that they noted a gap in the transport sector. This was a lucrative business for them with affordable CAPEX and OPEX.

5.3 Was this an appropriate policy intervention by the authorities?

The suitability of a solution can be measured against its success or improvements that are tangible. In terms of public transportation, the passenger quality needs deteriorated drastically. This led to the abrupt measures being undertaken to curb the challenges that emanated from banning '*mushika shika*' and changing the operating conditions of commuter omnibuses. This observation is emanating from the data collected from commuters and the public transport operators.

From the researcher's point of view, this was not an appropriate solution by the authorities despite that *'mushika shika'* is illegal and unregulated. The GoZ could have a well thought process and applied solutions holistically to avoid worsening public transport problems that have been present for quite a lengthy period. ZUPCO has been on its knees since 2014 (Mbara, Dumba and Mukwashi, 2014:9). An inefficient public transport system is a gap which the '*mushika shika*' have filled. Harare has many private vehicles that are also contributing to the congestion that was and is being experienced in Harare.

The GoZ has a huge responsibility to map out sustainable public transport policies that can be used to address the problems that are being experienced in Harare and Zimbabwe as a whole. The policies should embrace the public transport infrastructure and the fleet of vehicles required.

5.4 What are the future plans for the public transport industry in Harare?

ZUPCO which is the only formal public transport operator and mentioned that they will increase the fleet for "*emergency commuters*" and improve the ICT technology to ensure that commuters are served with an improved service. According to ZUPCO "*emergency commuters"* were described as individuals that should have their trips prioritised. This is not an effective solution to the magnitude of the problem being faced in Harare. Commuters are queuing for more than an hour with no shelter. There are no sustainable future solutions that has been put in place towards improvement of public transport. The emergency measures that were put in place to alleviate the public transport challenges have not improved services and have become unpopular with other public transport operators and the commuters. These measures include recommissioning of aged train rolling stock and signing off franchise agreements with commuter omnibuses.

The future plans clearly will not resolve the public transport challenges where the passenger demand is high, and the supplier is unable to provide passengers with a quality service. There are other issues that must be paid attention to, such as infrastructure which contributes immensely to any functional transportation system.

5.5 What are the lessons learnt from the prohibition of 'mushika shika' in Harare?

The lessons learnt from the study have been derived from the secondary and primary data sources that were engaged for the purposes of conducting this study.

(i) Public participation - The influx of '*mushika shika*' has a root cause which has been a long-term problem. The unregulated private sector identified a gap in the public transport. It is a problem that cannot be solved overnight with temporary solutions. Public participation is a valuable tool in diagnosing problems in the transport sector. Social, economic, and political issues cannot be separated from transportation, hence the need to derive lessons from studies probing into these issues, to improve efficiency in the transport sector. The end user, politicians, operators, government representatives, academics to mention just a few all have valuable information that is required in problem solving. Stakeholders have been alienated in these discussions hence decisions are proposed by only one sector that maybe ignorant of meaningful contributions from stakeholders mentioned and many others.

(ii) Policy and regulation- The importance of holistic sustainable public transport planning cannot be ignored. Every authority has a responsibility to plan public transport starting from the basic elements. Public transport regulations and policies play an integral part in decision making to benefit all stakeholders in the transportation sector (Behrens, 2020) listed the common regulatory objectives as follows:

- *"public safety,*
- *environmental protection,*
- *social equity (public good),*
- *(controlled) competition,*
- *multimodal integration."*

In Harare there are no planning, regulatory frameworks or policy documents that specifically deal with urban public transport systems. As already mentioned, the GoZ has been resolving

public transport challenges as they developed, and this is not sustainable. Behrens (2020) in one of his lectures has defined a *"regulatory cycle in the Global South"* and made emphasis that most authorities have remained stagnant on stage 3 for several decades. See Figure 16 Regulatory cycle in Global South.

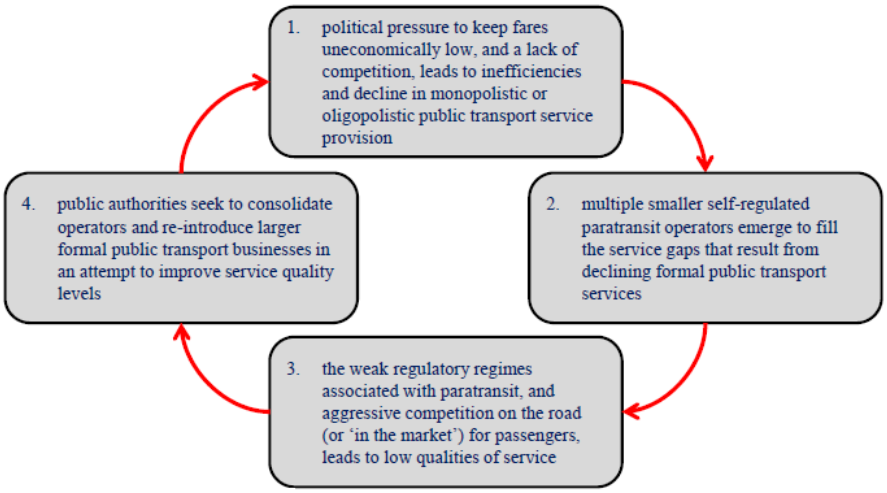

Figure 16 Regulatory cycle in Global South (Behrens, 2020)

Clearly the GoZ, is lingering on stage 3 and there is low quality of service which cannot be doubted according to the findings of this study. Zimbabwe as a country has undergone phase 1 and 2 already. The GoZ is striving to operate under stage 4, and this is an uphill task as there are no regulations and policies to drive the objective of improving the service quality levels.

Therefore, it cannot be overemphasized that it is especially important to have in place policies and regulations that can deal with challenges. These policies and regulations ought to be monitored and reviewed if they are not meeting objectives. Munhuwa et al., (2020) highlighted in a journal that there were no interventions put in place to manage the large volumes of vehicles that was causing congestion.

(iii) Inadequate Infrastructure - The condition of infrastructure cannot be alienated from the challenges being faced in Harare due to the ban of '*mushika shika*.' The CoH transport network systems have not been upgraded to meet the public transport demand that has increased over two decades. As already mentioned, Harare is the economic hub of the province and harbours a large population of informally and formally employed people. The GoZ has thrown its weight towards increasing the means of carrying commuters and the infrastructure is neglected. Vehicles and infrastructure function as a unit. If infrastructure is rendered unsafe and has no

capacity to meet demand, then applications of solutions can be rendered non-viable. '*Mushika shika*' was banned and the train rolling stock were introduced to augment the ZUPCO buses and commuter omnibus fleet after a public outcry. The railway network infrastructure has not been upgraded and maintained. The train rolling stock have been lying idle in the yard and was not in use for a lengthy period and there were no maintenance plans rendering it unsafe as a transport carriage for commuters. The National Railways of Zimbabwe (NRZ) in partnership with ZUPCO has reported that the operational costs outweigh the revenue. Eventually this mode of transport will be unsustainable. If this intervention continues to be unsustainable the costs of fares will go up to fund the operational costs. This will defeat the objective of providing affordable public transport.

The road networks are heavily dilapidated, and the road space has dwindled over the years. Poor road conditions damage vehicles and reduce their average life span and even increase operational costs. A reduced life span will mean that vehicles must be replaced sooner than expected. This comes with a cost, which influences expenditure that may have been channelled elsewhere to improve services or expand services. Therefore, it is inherent that infrastructure be taken into perspective if authorities undertake public transportation decisions, to ascertain positive outcomes. Photograph 10 shows a ZUPCO bus that is immersed in water, at a rank. This is typical public transport infrastructure dilapidation, where stormwater infrastructure is not refurbished, upgraded, or at least maintained and this ultimately leads to a complete failure to offer the service. Commuters can be seen waiting on the platform but there is no access into the bus because it is full of water. The consequences of dilapidated transport infrastructure will inevitably lead to poor public transport service or in the worst-case scenario the lack of it. This cannot be overemphasized.

Photograph 10 Condition of transport infrastructure in Harare (Chin'ono, 2021)

(iv) Lack of competition – The banning of '*mushika shika*' left ZUPCO as the only formal and regulated public transport. Commuter omnibuses were banned from operating in the private sector, and they could only operate as a franchise. This brought about market with no competition and ZUPCO under the control of ZUPCO could easily control the whole public transport sector. Based on the findings from various sources there is no improvement in service quality, the costs and fares are taking an upward trend and there is no efficiency. Therefore, it is important to ensure that the private sector participates in the provision of public transport so that there is competition for the market which enables the germination and a high possibility of an improved service. Decisions to exclude the private sector should be put in place, after undertaking research in other subjects of transport planning such as transport demand and

supply management and analysis, transport-oriented development, non-motorised transportation etc. These in-depth studies will assist in producing sustainable solutions.

5.6 Similarities and differences with the regional and international cases reviewed in the literature review chapter

In this study the GoZ banned '*mushika shika*' to contain the spread of COVID-19. '*Boda bodas'* were banned from conducting operations in the central business district of Nakuru town Uganda since they were causing congestion (Mutiso, 2010:29). It can be noted that the reasons for banning the '*mushika shika'* and the *'boda bodas'* in Harare and Nakuru respectively are not the same. According to the studies conducted in Kampala the '*boda bodas*' in Kampala augmented the public transport supply in Kampala, but there were safety and security risks (Raynor, 2014:54-55). There was no outright ban of this informal mode of transport in Kampala. Instead in Kampala the authorities resorted to charging congestion fees. In another study (Ikot, 2011:34) wrote about the ban of the '*okada*' by the authorities in Nigeria citing that they were a menace and posed a safety and security risk. The reasons for banning *'okada'* differ from those that led to the ban of *'mushika shika.'* The bans for both the *'okada'* and *'mushika shika'* occurred within the same space of time, which is February 2020 and March 2020, respectively. The presence of illegal and informal modes of transport in Harare, Kampala and Nairobi has similar impacts such as bad and unruly behavior on the roads, disregard of the road rules, congestion etc. In a journal titled, *Approaches for Reducing Urban Traffic Congestion in the city of Harare*, it has been written that congestion was a challenge in the CBD of Harare. In the same journal it is reported that this has emanated from the deregulation instituted in the early 1990s (Munuhwa et al., 2020:1). The existence of congestion is a similar occurrence in both Kampala and Harare.

The Herald, which is a local paper, reported that the *'mushika shika'* are clearly a safety risk. It has been reported that commuters are aware that there is a safety and security risk that is attached to the use of *'mushika shika.'* However, the commuters have no option but to use *'mushika shika'* because they will get to work on time. The safety risks occur because the cars will be overloaded, and the conductor will be hanging out at the back of the vehicle. The drivers are reported to be exceeding the speed limit, and commuters have no say with regards to safety matters (Charamba, 2016). Clearly this is a statement that shows the benefits of the *'mushika*

shika' and the risks it carries. These can be likened to some of the attributes of the *'boda bodas'* in Kampala.

In Kenya, the government did not outrightly ban the '*matatus*,' instead they imposed a ban on the importation of the '*matatus*' to reduce the number of these types of vehicles on the road and encourage the use of vehicles with a larger capacity. The Kenyan government imposed the importation ban, because of the congestion that was being experienced due to the large volumes of '*matatus*' on the streets of Nairobi (Ommeh et al.; 2015:1). The ban in Zimbabwe was an outright removal of the *'mushika shika'* from the roads to prevent the spread of COVID-19 and subsequently reduce congestion on the streets of Harare, but other positive impacts of reduction of vehicles on the roads were not highlighted. It is quite clear that in Zimbabwe, Nigeria, and Uganda there was a total ban, however in Kenya the government approached the problems posed by *'matatu'* in a different manner.

The socio-economic environment of the cases considered in the literature review is similar in the cities that are experiencing an influx of informal transport modes. The situation boils down to the fact that the demand for transport is high and the formal public transport sectors is not effective or efficient. The macro-economic climate is harsh in countries such as Uganda, Kenya, Nigeria, and Zimbabwe. The need for human survival has driven people to engage in informal transportation businesses to earn an income and have a decent livelihood.

The increased demand for public transport is a fate that commuters have suffered in other countries Uganda (Raynor, 2014:150); Kenya (Ommeh et al.; 2015:11); Nigeria (Ikot, 2011:34) and Zimbabwe. Studies conducted in Rio de Janeiro the capital of Brazil on the "*vans*" show that the regulated tranport was inundated and they could not match the demand for public transport (Balassiano and Braga, 1999:5-6). This is a similar situation that is being experienced in Harare based on the findings of this study.

Studies conducted in Uganda, Kenya and Nigeria highlighted that banning informal transport was not ideal as this affected commuter negatively. In Harare commuters have not been spared from the same predicament due to lack of public transport. In previous studies conducted in Uganda, Kenya and Nigeria the informal transport business owners have been left without an

income as soon at their respective governments-imposed bans. The "*mushika shika*" owners in Zimbabwe have alluded to the same and have indicated that there was a loss in income and jobs in this informal sector.

Based on the study conducted Harare informal transport operators raised concerns that they were not given a platform to air their views before bans were implemented. In studies conducted in other countries reviewed in this report, it has been highlighted that the informal public transport operators did offer significant service to commuters as they augmented the public transport supply in the cities. Abrupt prohibition of informal public transport has been proven to have dire consequences for the commuters in all studies reviewed for the purposes of this research.

It is argued that in all the studies reviewed for the purposes of this research, it is necessary for policy makers and authorities to be sensitive to the fact that people need reliable transport, and the operators also earn a living through the public transport business. In Kenya the decision to gradually phase out *"matatus"* was supported by some operators and, other operators felt that the decision was meant to benefit the suppliers of larger vehicles without paying heed to the needs of operators (Ommeh et al., 2015:10). In Harare sentiments were echoed by the *'mushika shika'* operators citing that the decision to ban was meant to benefit the elite and politically connected transport business owners. *'Mushika shika'* operators also suffered a loss of income in Harare after a complete ban. These sentiments were echoed in the studies conducted in Nairobi and Harare show that some decisions taken tend to be beneficial to other parties at the expense of the operators.

It can be confidently said that banning public transport is not an appropriate solution if there is no alternative solution that is well thought and feasible. The augmentation of the regulated public transport in Harare is equally a necessity so that quality service is provided to commuters. GoZ have not completely done away with the *'mushika shika'* as they are still operating illegally after the ban. The negative impacts in the studies reviewed could not be overlooked. These negative impacts discussed in the studies conducted in Kenya, Uganda, Nigeria were reduced safety and security and environmental pollution. From the study conducted in Harare conflicts between law enforcement agents and operators were violent because unregulated operators were fighting to earn an income. In some cases, loss of life has

been witnessed due to reckless manoeuvres on the streets of Harare. These impacts due to ban of unregulated paratransit transport are leading to negative impacts to the socio-economic status of the developing countries in Africa.

5 CONCLUSION

The concluding statements and recommendations of the research will be based on the outcome of the results and the lessons learnt from the research.

This study was an opportunity to investigate the reasons behind the ban of '*mushika shika*' in Harare and the impacts thereof. The findings have addressed the research objectives to a significant extent. The GoZ banned the '*mushika shika*' to contain the spread of COVID-19 in March 2020. However, before the announcement by the authorities, '*mushika shika*' has always been operating illegally causing a menace in the streets of Harare, which has always been a concern to the CoH and the public at large. The impacts of the ban were analysed, and it can be rightfully concluded that the commuters have no access to decent public transport, which has led to untold suffering of the public. Trip times were longer due to the lack of reliable public transport. Commuters ended up walking longer distances when dropped off as they could not access '*mushika shika*' services that were offering doorstep service. However, whenever an opportunity to use the banned '*mushika shika'* was presented, commuters opted to use this mode of transport despite the ZUPCO costing less than '*mushika shika*'. In light of all these events unfolding the commuter omnibuses were allowed to operate under ZUPCO, but this relationship did not last as the franchise model was unfavourable to the commuter omnibus operators with less than four vehicles, which is deemed a small fleet in this study. Ultimately some of the commuter omnibus the operators and '*mushika shika*' operators have lost a source of income. ZUPCO could not meet the travel demand after the ban of '*mushika shika*' and introduction of commuter omnibuses in their fleet. ZUPCO succumbed to the introduction of aged train rolling stock which was unpopular with the general public and limited to certain parts of Harare.

Of course, there were benefits safety, security, and environmental benefits due to the reduction of the '*mushika shika*' on the roads. Social scientists think otherwise of course and advocate for the ban of '*mushika shika*' completely (Chikengezha, 2020:66-67). The public transport situation in Harare is however dire and requires intervention from transportation experts, so that measures are implemented objectively. The transport sector in Zimbabwe lacks expertise and policy makers must be advised on the benefits of an efficient public transport system. It is worthwhile to set up committees that comprise of experts in public transportation who should play an advisory role to the policy makers. The committees' decisions should not be interfered with politically, but should be based on research findings. Tertiary institutions have been a

backbone in study and research that has provided solutions in government institutions and many other organisations for decades globally. The largest universities in Zimbabwe do not offer programmes under transportation, which creates a gap in the academic sector in Zimbabwe with regards to public transportation, which can be used to manage the public transport problems that have been rampant for over two decades. It is necessary to introduce programmes and experts in the academic sector to teach and disseminate information on the planning and implementation of public transportation systems. The trained individuals will eventually be absorbed in the industry as trained transport planners.

This study relates to many others conducted in Sub-Saharan Africa over the years. The implications due to the ban of paratransit transport are similar. The most common findings are the loss of income for the operators and the increase in demand for transport by commuters as soon as the paratransit operators are pulled out of the system.

This study carried more weight under public transport regulation and policies; however, this cannot function without taking into consideration other matters such as transport demand analysis, public design, and operations etc. to resolve the problem at hand.

Now that it has been found that the ban was inappropriate according to the researcher's opinion, it is recommended that other subjects in transportation be implemented to study, analyse, and contribute findings to solve the current public transport problems identified in this study. Given a set of challenges in the public transport system solutions are derived by proposing appropriate criteria, to evaluate any newly proposed alternatives. The proposed alternatives are meant to be resolve the challenges experienced in the public transport system. The results achieved should be conclusive for other uses as may be required. As the process is undertaken it is crucial that the projects which are formulated from identified alternatives consider the capital costs and the operational costs. This study is just a beginning towards resolving the public transportation woes in Harare and Zimbabwe as a country.

Systems or strategies formulated in an environment where (i) people behaviour (ii) policy makers and (iii) there is existing infrastructure are involved is not always fool proof. Shortcomings are inevitable when putting travel demand measures in place to alleviate the public transport users. Therefore, it is crucial to identify the measures and put in place policies that can reduce or at least minimise the shortcomings. Findings in this study have confirmed that putting in place measures can have positive and negative impacts as well, that are unintentional or unintended. It is also unfortunate that the negative impacts have since spiralled

out of control. Impacts due to changes in policies have been observed and documented in numerous studies conducted. But on-going observations of other unknown impacts should always be conducted, to improve the public transport operations measures or seek other appropriate measures if unknown or unforeseen impacts are experienced.

The researcher concluded that, despite the illegal status of '*mushika shika,'* the ban was not sufficiently evaluated beforehand and therefore inappropriate. The root causes for influx of the illegal paratransit must be investigated and resolved further. The economic crisis, collapse of transport infrastructure, absence of regulation and policies, lack of expertise are some of the root causes of poor service delivery by the regulated transport operators. This has created a gap that the paratransit sector has taken advantage of. It is recommended that further research be conducted towards finding sustainable solutions towards the public transportation as a system in Harare and Zimbabwe as a country.

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APPENDIX A: SIGNED ETHICS FORM