Quest Journals Journal of Research in Humanities and Social Science Volume 9 ~ Issue 6 (2021)pp: 18-31

ISSN(Online):2321-9467 www.questjournals.org



# **Research Paper**

# Demand for Cheap Transport by Government Workers and Production in the Public Sector

Jane Nyamandwe\*, Elsie T. Gambiza\*\*, Wellington G. Bonga\*\*\*

\*Independent Researcher, Zimbabwe

\*\*Marketing Research Manager, Dynamic Research Review, Zimbabwe

\*\*\*Department of Banking & Finance, Great Zimbabwe University, Zimbabwe

Abstract: The Zimbabwean nation has been struggling to gain economic development momentum in the multicurrency era despite numerous efforts being made by policy makers. The economy has since operated with budget deficits and high consumption expenditures in the form of wages for civil servants and little capital expenditure for proper development in the longer term. The Zimbabwean economy has lagged behind many economies which have been on the same economic level some few decades ago, yet there still exist inadequate effort and improper arrangements for its civil servants to provide services timeously and effectively. The study analyzed qualitatively the impact that the demand for cheap transport by government workers to/from work has on the production or service delivery in the public sector. Using an electronic survey technique, the study managed to confirm that public sector workers are failing to report to work early and are leaving work early due to poor transport arrangements and transport challenges. The welfare of workers does not match the costs of commuting using other methods apart from them using public sector transport and the revitalized ZUPCO transport and ZUPCO franchised transport. Working less than the statutorily stipulated time impacts negatively on economic development and stability, causing the nation to remain in the economic deep. The study recommends welfare of civil servants to be addressed so that they are able to commute timeously to work. More flexible methods of offering services should be sought and adopted to reduce pressure on transportation during peak hours. Increasing public sector fleet and effectively managing it is ideal. Private players in the transport sector should be accommodated through favorable contracts that enables them to make profit. Macroeconomic stability and economic growth may not be attainable if public sector workers transport challenges are not effectively and correctly addressed.

**Key words:** Government Workers, Productivity, Public Sector, Transport, Welfare, Zimbabwe **JEL Codes:** C83, D14, D31, D91, E23, E24, H42, I31, J08, J22, J31, J32, J91, N37, O40, R41, R42

Received 25 May, 2021; Revised: 06 June, 2021; Accepted 08 June, 2021 © The author(s) 2021. Published with open access at www.questjournals.org

# I. INTRODUCTION

The public sector comprises of a diverse assortment of jobs. There exist business and administration roles ranging from economists, accountants, teachers, nurses and social workers among others. All the services offered in the public sector enable the economy to function smoothly if rendered effectively. However, nothing exists without hindrances and such sieges should be examined for solution determination. The public sector in Zimbabwe is still underdeveloped in terms of finance, human resources, efficiency and management. In general, the public sector is greatly linked to the private sector to the extent that the private sector may fail to operate efficiently once some services offered by the public sector are not done properly and efficiently. One of the potentially most serious difficulties for studies of the effects of public services on economic development is the problem of measuring both the quantity and the quality of those public services or facilities (Fisher, 1997). The public sector ensures fair playing ground for the private sector through monitoring and regulating. Therefore, production output for the public sector is not directly observable.

Transport is essential for the economic and social development of all countries as well as for supporting regional and global cooperation and economies (UNECA, 2015). Inadequate transport investment can hold back economic development. The economic effects of transport are generally measured at national level using national accounts that present the changes of aggregates such as employment, national income, public expenditures, productivity and gross output (Caid, 2004). National accounts, however, undercount the share of

transport in the production costs, hence satellite accounts may be more appropriate. Like any other country in the world, Zimbabwe relies on transport as a vehicle that enables the economy. Transport is a central ingredient in the time and spatial economic utility of products and services (ADB, 2012), and also mobility is an essential part of human life especially in cities (Cihat, 2012). Transport needs can be consumptive and productive. The demand for transport by government workers to work is productive need. Transport, many may argue, is the least of one's concerns when trying to secure and maintain employment (Gobind, 2018), but becomes crucial once employed in order to deliver efficient services. Productive transport needs have a clear economic focus (Jean-Paul and Theo, 2020), while consumptive transport needs is linked to less visible value addition. Transportation plays a central role in society and the economy but is frequently taken for granted (National Academies of Sciences, Engineering, and Medicine, 2018). Sadly to note, transport costs in Africa – with its poor infrastructure network – are considerably higher than elsewhere (Berg *et al.*, 2017), which calls for government actions to sort the characteristic to enable development.

Transport supply should be matched to transport demand for smooth flow of business in the economy, with time and fair costs being critical factors. The demand for urban public transport in many cities of the developing world continues to increase with urbanization (Mbara, 2006). Generally, transport demand is higher and even more condensed during the morning and evening times and sparse in the remaining times of the day. Jean-Paul and Theo (2020), in support indicated that, well-functioning transport markets should allow the transport supply to meet transport demand so that transport needs for mobility are satisfied. For organisations in business just like government as well, transport may come from third parties or own transport as deemed fit by the administration. Cihat (2012) indicated that public transport services are mostly delivered either by private or public organizations. Worthy to note is that regardless of the party that delivers, transport services require substantial investments and high operating costs.

Generally, the demand for transport vary according to what is being transported – passengers or freight. The current study explores passengers being government workers. Demand for passenger transport is caused by the journeys that bring people to work and training, in economic terms supplying labour (Caid, 2004). In this category, transport demand is a function of demographic attributes of the population, such as income, age, the standard of living, race, and gender, as well as modal preferences (Jean-Paul and Theo, 2020), among others. As supported by Cihati (2012) time and the purpose of travel also have different effects on the level of expectations and, in turn, on demand. The 'cost' is one of the main determinants of public transport demand (Albalate and Bel, 2010).

Workforce productivity remains a primary element for success in most organizations, including those in government (Haenisch, 2012). Significant evidence exist that productivity advancement in government organizations has not kept pace with the increases found in the private sector (Killefer & Mendonca, 2006). Having knowledge of what factors influence productivity is a prerequisite to improving performance. Time management and production should be well supported especially for the developing nations. Good policies should always be in place to support time management and production. A country's economic or social development depend heavily on the various policies being adopted in the economy (Bonga, 2014). In history, Mr Jamme (former Gambia president) in 2013 introduced a 3 day weekend for civil servants in Gambia so as to allow people to socialise, pray and tend to agriculture. Mahuni, Taru and Bonga (2020), indicated that this policy for an already struggling economy heavily reliant on agriculture was very disruptive as most productive hours of time went to waste. Policy success requires a lot of ingredients including policy support, policy evaluation before gazette, and policy consultations, among others (Bonga, 2019).

### 1.1 Research Problem

Zimbabwe, just like other countries is under pressure to improve public sector performance and at the same time contain expenditure growth. Machinjike and Bonga (2021) highlighted that Zimbabwe is one of the least fiscally performing countries in Sub-Saharan Africa. Macroeconomic underperformance has to be dealt with by applying good policies, and macroeconomic imbalances should not persist for longer periods. Wherever possible, a pilot test should be conducted before enacting policies so as to minimise the disturbance to the economy (Makosa *et al*, 2021). Zimbabwe's economic and political crisis continues to bring economic hardship and suffering to the majority of Zimbabweans (Muchichwa, 2016). Bonga (2019) confirmed that Zimbabwe has undergone economic crisis for a long period. This has seen debt levels remaining high in the country. The large current account imbalances and low international reserves keep Zimbabwe in debt distress (Bonga and Sithole, 2020). More economic effort is therefore a steady requirement for a nation like Zimbabwe to pull itself out of the economic deep. However, sanity in the public sector is proving hard to prevail, as evidenced by high transport challenges by government workers.

Without a viable public sector the economy's objective of macroeconomic recovery won't be attained. Transport reliability to/from work by government workers is lacking. Gobind (2018) indicated that employee commitment to work comes at a price: long working hours compounded by the challenge of obtaining safe and

reliable transport each day result in untoward anxiety. Despite chaos for the past decade, of government workers being underpaid, they are still required to report to work. Increasingly, employed workers with long-term contracts, who have relative protection with job security, are experiencing sharp declines in their economic position (Muchechwa, 2016). There exist no decent work that every worker desires. Ahmad (2020) indicated that decent work is done under conditions where people are gainfully employed and social protection system is fully developed and accessible to all. Due to lower earnings government workers have increasingly been demanding cheap and affordable transport to work, as affording third party transport has become more expensive.

Bee (2010) indicated that a commonly cited barrier to employment among the urban poor is a lack of reliable transportation. Many people have no other alternative transport medium to use especially in rush hours, rather than waiting for cheap transport. To deal with transport challenges the government introduced through revitalizing the passenger company, which has previously suffered efficiency. The introduction of Zimbabwe United Passenger Company (ZUPCO), which charges very low fares as compared to other transport players was the intervention for transport challenges. Subsidy policies on public urban transport in never new, it have been adopted ubiquitously in both developed and developing countries, implemented to make transport more affordable (Estupiñán *et al*, 2007). After the intervention through ZUPCO, which possess in its fleet, few and malfunction vehicles, transport supply failed to match transport demand. So as to strengthen the ZUPCO concept, sub-contracting was made to third parties who wish to work under ZUPCO flagship with operation regulations guided by the parent company. Whether the move has brought relief to the transport challenges or the level of efficiency is to be investigated by the study, with the hope of bringing in a permanent solution to transport challenges and efficiency in the public sector.

Apart from ZUPCO concept for ferrying public sector workers to work, the public sector has its own transport system which has also its own challenges. The challenges ranges from routes they use, time they fetch workers, quantity of the fleet among others. Such challenges remains a threat to the public sector efficiency, calling for more actions and investigations to be made. There is no blueprint for enhancing public sector efficiency (Curristine, Lonti and Joumard, 2007), but human resource management is one area to cater for, to ensure positive results are obtained. Sadly as also noted by Eggers, O'Leary and Datar (2019), most public sector organizations are still locked into decades-old workforce policies. Policy changes may be necessary to bring in solutions to the persisting challenges. Because of transport challenges, workers become affected economically and psychologically, and that may spillover into work output. Time spent by many workers to ensure they arrive work and their homes may not be bearable. The soft aspects of human resource management, such as employee satisfaction and morale, are considered the most important drivers of performance (Curristine, Lonti and Joumard, 2007). The economic performance of the country may be partly impacted by transport challenges faced by public workers. Commuters experience worry and concern for their safety and job security when relying on public transport (Gobind, 2018), and this may lead to welfare loss if they sought other alternatives which are beyond their reach.

# 1.2 Research Objectives

The paper seeks to explore the prevailing link between the demand for cheap transport by government workers and production in the public sector in Zimbabwe.

#### 1.3 Organization of the Study

The paper is structured in five sections; introduction, literature review, research methodology, analysis and presentation of results, and conclusion and policy recommendations section.

# II. Literature Review

Consumption of any good or service in the current or future period depends on income and welfare of the individual. In light of the above, the demand for cheap transport by government workers relies on their income and welfare. The production in the public sector is a function of various production factors including working time of workers. Demand for transport is directly related to consumption. For instance, when workers use transport to and from work they will be using income and hence are consuming.

#### 2.1 Theoretical Studies

Four theories help explain the consumption function for individuals including their households; (1) Absolute Income Hypothesis, (2) Relative Income Hypothesis, (3) Permanent Income Hypothesis, and (4) Life Cycle Hypothesis.

Absolute Income Hypothesis. Keynes in the General theory indicated that men are disposed, as a rule and on the average, to increase their consumption as their income increases, but not as much as the increase in their income. The basic tenet of the absolute income theory is that the individual consumer determines what

fraction of his current income he will devote to consumption on the basis of the absolute level of that income (Agarwal, 2021). Absolute income simply reflects the total amount of earnings received in a given period. Relative income measures income in relation to other members of society, weighing it against the current standards of the day. *Ceteris paribus*, a rise in his absolute income will lead to a decrease in the fraction of that income devoted to consumption. The relationship between income and consumption is non-proportional and rests upon habit persistence among consumers.

The reviewed theoretical literature helps in understanding the reasons behind demand for cheap transport by government workers including the noticed behavior overtime. The models also help explain the link to productivity in the public sector. Some models guide on appropriate solutions to address the existing challenges. The AIH shows that individuals demand transport in relation to their income. When people have higher income, they tend to have increased options for transport to work. This may mean that they demand less of cheap transport, thereby relieving government fleet. Also the reduced demand for cheap transport may save lost time through being late to work and/or leaving early to seek cheap transport. The noticed transport challenges clearly indicate that incomes are very low for public sector workers.

Relative Income Hypothesis. The underlying assumption of the RIH is that saving rate depends not on the level of income but on the relative position of the individual on the income scale. As elaborated by Agarwal (2021), RIH implies the assumption that spending is related to a family's relative position in the income distribution of approximately similar families. Duesenberry contended that, at any given moment in time, consumption is not particularly sensitive to current income. People spend in a manner consistent with their relative income position. RIH argues that the level of consumption spending is determined by the household's level of current income relative to the highest level of income previously earned.

From the RIH it is given that individuals act almost in a similar fashion. There is greater comparison within families so as to act in a similar manner. Individuals go an extra mile trying to be operating like others. The inability to support one's family through work gives rise to shame, embarrassment and the loss of dignity (Muchichwa, 2016). Wherever, they may not afford, they make plans to make affordability a possibility. In real life people may dispose assets or borrow so that they won't change patterns of life far from others. Using this concept, it explains why many government workers report to work even when they are underpaid. By improving affordable mobility options for physically, economically and socially disadvantaged people, high quality public transit tends to increase economic opportunity and economic residence (Litman, 2020).

Permanent Income Hypothesis. PIH is a theory that attempts to explain away apparent inconsistencies of empirical data on the relationship of saving to income. Professor Milton Friedman says permanent income is roughly akin to lifetime income, based on the real and financial wealth at the disposal of the individual plus the value of one's human capital in the form of inherent and acquired skills and training. Over a lifetime measured income ought to coincide with permanent income, but in any one year measured income as a result to cyclical fluctuations and because of other random changes may depart from permanent income (Agarwal, 2021). Transitory income is the difference, in any year, between the measured income and permanent income. Transitory income, hence may be negative or positive in any year. This theory like the relative income theory, holds that the basic relationship between consumption and income is proportional, but the relationship here is between permanent consumption and permanent income.

The PIH shows that income fluctuates over years, leading to transitory income. Salaries of civil servants defines permanent income in many stable states. In periods where workers are underpaid, this may imply negative transitory income, which requires to be dealt with so that families operate at a favourable balance. The level of permanent income also defines the demand for cheap transport. Where permanent income is low, workers demand more of cheap transport.

Life Cycle Hypothesis. LCH was developed by Franco Modigliani, Albert Ando and later by Brumberg. LCH is a crucial attempt to explain the difference between cyclical short-run consumption function and secular long-run consumption function. The two approaches, PIH and LCH, are similar in principal yet they are different in certain respects. In the Friedman's approach a consumer unit is assumed to determine its standard of living on the basis of expected returns from its resources over its life time. The Modigliani-Brumberg-Ando (MBA) approach is essentially a permanent wealth hypothesis rather than a 'permanent income hypothesis' though in practice the two approaches converge. The central tenet is the assumption that the proportion of permanent income saved by a consumer unit in a given period is independent of its income (or its resources) during that period and furthermore that transitory incomes may have no or little effect on current consumption (Agarwal, 2021).

Productivity Concept. General management as entrenched in operations and production in the past centuries gave birth to non-responsive and dormant factors of production which dictated public service bureaucracy (Okpighe, 2015). According to traditional economic theory, there are four main factors of production: land, labor, capital, and entrepreneurship. No production is possible without bringing together these factors of production and employing them in right proportions at the right time using the right amount of time.

Time and motion studies have been used to ensure productivity and competitiveness of organisations through management of time and activities. The time and motion study allows the development of continuous improvement within organizations (Cury and Saraiva, 2018). Production economics deals with the optimal combination of inputs in production, and how this relates to their relative costs (Okpighe, 2015). Labor represents all of the people that are available to transform resources into goods or services that can be purchased (Nowaczyk, 2020). Productivity is paced by takt time. In support of this, Linck and Cochran (1999) narrated that takt time relates customer demand to available production time and is used to pace the production. This concept can be easily borrowed and applied to service industries to ensure time management at work. To achieve optimum production continually, one way is to minimize the frequency and length of downtime at work. Downtime may also mean absenteeism at work or reporting less hours at work in service industries. There have been many researches that use production time when evaluating production performance, and many methods have been developed for calculating manufacturing cost (Windmark, *et. al*, 2012).

### 2.2 Empirical Studies

Exact literature that directly link demand for cheap transport and productivity in the public sector is scarce. The concept will be explored using near literature available.

Borhan et al (2019), in their study investigated the constraints that limit public bus use by working people in Putrajaya, Malaysia. The Putrajaya city was built to replace Kuala Lumpur as the new administrative centre for the government. Their study adopted qualitative methods involving 29 respondents who use car and/or bus to report to work. The study found that reliability, safety, and customer service, play considerable roles in promoting public transportation use. Reliability as measured by frequency, punctuality, and transfer was observed to be an important factor in mode of transport choice. Safety was also one of the major concern amongst the respondents. The study suggested that a more reliable and accessible service is required to promote public bus as an attractive mode of transport.

Amoh-Gyimah and Aidoo (2013) presented empirical results of a study into the journey to work by government employees in the Kumasi metropolis, Ghana. The study used data obtained from a 2012 field survey. A conditional logit regression model was used to investigate the choice of mode of transport to work. The regression results indicated that individual characteristics such as family size, educational status, income, home-to-work distance and marital status were crucial determinants of the choice of commute mode by government employees. The results also indicated that government workers were less likely to choose transport modes with longer travel times. The study also obtained that about 75% of the workers using public transport and 19% of those using personal means of transport were prepared to shift to an institutionally arranged large bus services. The study recommended as a policy for government to provide large buses to convey employees to and from work.

A study for Malaysia by Nurdden *et al.* (2007) examined policies aimed at discouraging private transportation use. A binary logit model was developed for three alternative modes of transport: car, bus and train. Age, gender, car ownership, travel time, travel cost, household size and income were found to be significant factors in influencing the individual's choice of transportation. The study obtained as most important factors likely to encourage public transport use being; 'reduced travel times', 'shorter distances' from home to public transport stations and 'subsidized fares'. The study indicated that proper incentives were required to be provided for a successful implementation for commuters to switch to public transport.

Subsidizing public transport as one of government policies has been common in many countries. In a study Asensio *et al.* (2003) stated that most cities in the developed world strongly subsidize public transport services. The authors analyzed the redistributive effects generated by the subsidization of those services. A two-stage services estimated, that considers both car ownership decisions and expenditure in urban public transport in order to measure the long run effects of income changes. The study measured the progressiveness of the subsidies for different groups of income and city sizes. Urban public transport subsidies were found to be progressive. The effect was summarized as considerably more important in larger urban areas than it in small ones.

Estupiñán *et al.* (2007) in their study acknowledged that subsidy policies on public urban transport have been adopted ubiquitously. The concept is found in developed and developing nations, implemented to make transport more affordable. There are virtually no quantitative assessments of their distributional incidence, making it impossible to determine if these instruments are pro-poor. Their study reviewed the arguments used to justify subsidy policies in public urban transport. The study evaluated quantitatively using different tools the incidence and distributive effects of subsidy policy options. The findings of a series of research papers that study urban public transport subsidy policies in developed and developing countries were analysed. It was found that existing public urban transport subsidy policies do not make the poorest better off. It was further indicated that, supply-side subsidies are, for the most part, neutral or regressive; while demand-side subsidies perform better. The study concluded that if the policy objective is to increase the welfare of the deprived, it is vital to

move away from supply-side subsidies towards demand-side subsidies and to incorporate transport social concerns into wider poverty alleviation efforts.

## III. Research Methodology

The study employed a questionnaire approach in the form of an electronic survey. The target population was the working population in the parastatals, government institutions, non-government organizations and the private sector. The electronic questionnaire comprises of 20 questions. The electronic link used by the study was from Monkey Survey a platform that enables online surveys; <a href="https://www.surveymonkey.com/r/DD53D23">https://www.surveymonkey.com/r/DD53D23</a>. The following questions were asked in order to extract data for policy.

Q1-Q5: Demographics. Q1-Q5 are demographics questions. They save to provide information pertaining the survey participants. Q1 asks the sex of participants – while there is no posit between response from females or males, it is only crucial to check on the distribution of participants by sex. Q2 requires age group of participants. There are five age groups namely; 18-24 years, 25-34 years, 35-44 years, 45-54 years and above 55 years. The question only enable the study to determine how participants are distributed by age, and no significant differences are assumed by the study for the subject of concern. Q3 seeks to check the marital status of participants. Participants are required to indicate whether they are married, widowed, divorced or single. No posit is available for the differences that may arise to participants falling in one category, only the distribution is required. Q4 requires participants to select the highest level of education they have attained. Five options are available, Ordinary/Advanced level, Diploma, Degree, Masters and Doctorate. Q4 reflects the distribution by education qualification, and helps in evaluating the quality of responses obtained. Q5 requires participants to provide their working experience for the current job. The question has six options namely student/not working, self-employed, 0-5 years, 5-10 years, 10-15 years and above 15 years. Again, this questions helps to check on the quality of responses provided by the survey.

Q6-Q8: Mode of Transport to/from work. The three questions seeks to establish the mode of transport the participants use to/from work. Q6 first requires participants to indicate the job sector they belong. Four options are available; government/public sector, parastatal, non-government sector and the private sector. Q7 asks participants if they own a car as a person or as a family. Medlock and Soligo (2002) in their study indicated that saturation levels vary across countries and that user costs are a significant factor in the evolution of vehicle stocks. Dargay, Gately and Sommer (2007) also narrated that the speed of vehicle ownership expansion in emerging market and developing countries has important implications for transport policies. Many factors have influence on vehicle ownership growth, such as economics factor, public transportation service level, policy restrictions, and urban layout, while the economic growth has been the dominant driven factor (Huapu, He, Zhiyuan and Jing, 2017). Q8 asks the mode of transport participants often use when going to work or coming from work. Four options are available for participants to choose; public transport, company transport, private transport, and mixed transport.

Q9-Q12: Transport situation in Zimbabwe. The four questions seeks to explore the transport situation in the country. Q9 requires on a scale 0 to 1, participants to rate the transport challenges during peak hours in the cities, 0 being no challenge, 0.5 being fair and 1 being serious challenge. Transport poverty is a complex issue and its impact is clear (Sustrans, 2012). Determining the rank will give light on the seriousness of the transport issues in the country. The study predicts a serious challenge for the transport situation in the country. Q10 requires participants to give their honest opinion on how expensive fares charged by private commuters to/from work compare to employee welfare in the public sector and other related sectors. There is a notion that costs of commuting is relatively higher for low income earners. This question help in evaluating the fairness of remuneration system for public sector workers and other related sectors. Q11 acknowledges government intervention to curb transport problems by introducing ZUPCO and attaching other transporters to the ZUPCO model, and requires participants to rate the move in easing transport challenges. Again, a scale 0 to 1 is used, 0 being poor, 0.5 being fair and 1 being excellent. Q12 In an effort to curb transport challenges, government introduced ZUPCOs. To what extend has the move eased transport challenges during peak hours?

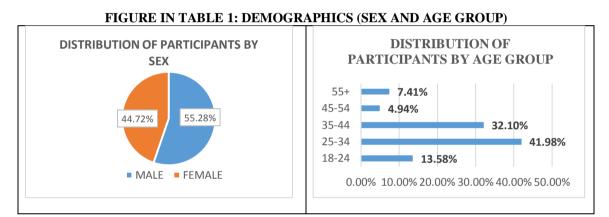
Q13-Q14: Production and Transport Challenges in the Public Sector. Q13 checked how participants view the link between an efficient public sectors and economic growth and stability. Do participants agree with the positive relationship between the two variables. Five responses with guide from literature exist for participants to indicate their view; strongly agree, agree, neither agree or disagree, disagree and strongly disagree. Q14 relates late coming for work and leaving early from work to productivity in the public sector. Again participants were required to give their honest opinion on how the issues are linked. Five responses; strongly agree, agree, neither agree or disagree, disagree and strongly disagree are required for the question.

**Q15-Q20:** Assessing Time & Production in the Public Sector. Q15 checks from participants whether time is being managed to/from work in the public sector and other related sectors. A scale is used from 0 (poorly managed) to 10 (efficiently managed). Q16 basing on the recognition that late coming to work and early leaving

exist, the question seeks to determine the average time lost for work by workers due to late coming and early leaving. The question has six responses to choose from; none, 0-30 minutes, 30 minutes – an hour, 1-2 hours, 2-3 hours and more than 3 hours. Q17 explores how convenient public sector buses/transport in ferrying workers to/from work. A scale is used from 0 (not convenient), 5 (fairly convenient) to 10 (very convenient). Q18 seeks to verify and confirm that public sector transport is not able to reach every location where workers can board the buses to work. Recent studies indicate that households in transit-oriented areas have lower mortgage foreclosure rates, indicating better economic resilience (Gilderbloom, Riggs and Meares 2015; Won, Lee and Li 2017; Welch, Gehrke and Farber 2018). Participants are asked how far they a gree to the fact. Five responses; strongly agree, agree, neither agree or disagree, disagree and strongly disagree are to be chosen by participants. Q19 checks on the modes of transport used by workers to/from work. Participants are required to rank from the most used to the least used. Four modes were picked by the study, being public sector transport, ZUPCO/related transport, other commuters and private transport. Q20 seeks to find out ways that can be followed to support public sector workers report full time to work for roles fulfillment. The study has been guided to come up with a list of viable options of which participants can choose from, with an option to add other ways not on the list. The list obtained from empirics include increasing public sector fleet, improving welfare of workers, and providing more flexibility in partaking duties.

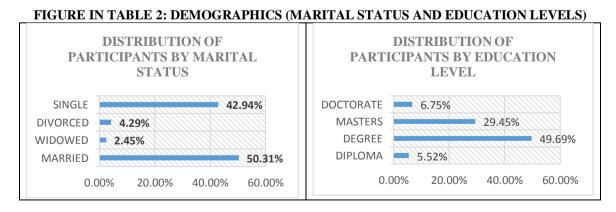
#### IV. Results Presentation

A total of 163 responses were obtained, 143 questionnaires were correctly completed giving a completion rate of 88%. The distribution of participants by sex and age group is shown below;



As indicated above, males were 55.28% while females were 44.72% of the participants. Males participated more in the survey than their female counterparts. The distribution of participants by sex, however, has no meaningful impact to the overall results of the study. Age group representation shows that 25-34 years have the highest representation of 41.98%, followed by 35-44 years with 32.1%, 18-24 years with 13.58%, above 55 years with 7.41% and finally 45-54 age group with 4.94% representation.

The study also checked on marital status and level of education of the participants. The results of the survey on the two questions are shown below;



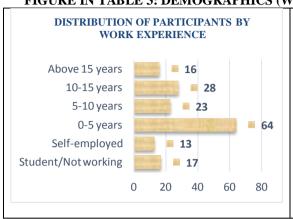
On marital status 50.31% are married, 42.94% are single, 4.29% are divorced, and 2.45% are widowed. There is representation for each marital status, with married and singles taking a larger share of the participants.

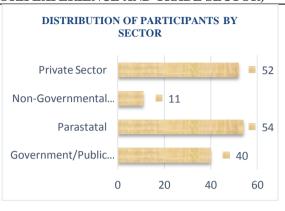
<sup>\*</sup>Corresponding Author: Jane Nyamandwe

There exist no strong assumption for the responses obtained from the different classes. The level of education was divided into four sections. Those with diploma as their highest qualification were 5.52%, degree 49.69%, masters 29.45%, and doctorate 6.75%. The study is assured of obtaining dependable responses due to the education levels of the participants.

Work experience and trade sectors of participants is shown below;

FIGURE IN TABLE 3: DEMOGRAPHICS (WORK EXPERIENCE AND TRADE SECTOR)

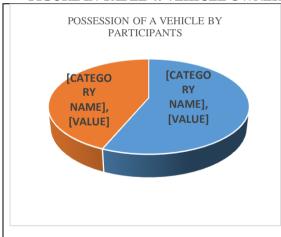


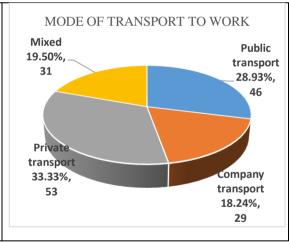


On working experience, 17 participants indicated that they were either students or not working, 13 were self-employed, 64 had a work experience of between 0-5years, 23 had a 5-10 working experience, 28 had a 10-15 years working experience and 16 had working experience of more than 15 years. 54 participants, being majority came from parastatals, 52 from the private sector, 40 from public sector and 11 from non-governmental organisations. The government sector and parastatal has significant representation to ensure reliability of responses obtained on the subject, while the private sector and other sectors act as control.

Participants were asked to indicate if they own a vehicle as a person or a family. Also the mode of transport used to/from work was also checked from participants. The results are clearly shown below;

FIGURE IN TABLE 4: VEHICLE OWNERSHIP AND MODE OF TRANSPORT





43.67% of participants indicated that they did not own any vehicle either as an individual or as a family, while 56.33% indicated ownership. Car-ownership levels may be explained by welfare levels of participants. Historically, various studies and models have found that income is by far the main factor driving vehicle ownership (Caid, 2004). Karen *et al* (2019) indicated that lowest income households have higher levels of non-car ownership. Car ownership affects may affect public sector transport demand negatively. According to Balcombe *et al.* (2004), a person in a car owning household is reported to make noticeably fewer trips by both bus (66% less) and rail (25% less) per week than a person in a non-car owning household. More participants (56.33%) indicated that they own cars, and this may not be a favorable results as it seems. Why people own cars may need to be investigated. Sustrans (2012), in support, indicated that where there are few public transport services, people may be forced into car ownership, despite the high costs, to access employment and essential services. Car ownership has grown rapidly to fill in the absence of public road transport (Chee and Fernandez, 2013). In support, Nurdden *et al.* (2007) noted that in Malaysia the rapid increase in the use of personal

transportation has its roots in the weak Malaysian public transport system. Although bus travel is economical, it is not significant enough to encourage private car drivers to switch to public transport (Borhan et al., 2019). 33.33% of participants used private transport when going to work, 18.24% mostly used company transport, 28.93% used public transport, and 19.5% indicated that they mix modes of transport most of the time when going to work.

09: In your own opinion, how do you rate transport challenges during peak hours in cities around Zimbabwe? 152 participants answered the question. A score of 8.5 was obtained. The score is closer to 10 (serious challenge), indicating that transport during peak hours in cities in Zimbabwe is a serious challenge that needs attebtion.

Q10: In your own opinion, how expensive are fares charged by private commuters to/from work compared to employee welfare in the public sector and other related sectors? A score of 7.3 was obtained from 151 responses. The score is near 10 (very expensive), indicating that the fares are very expensive as compared to employee earnings. Employees are struggling to afford the fares. Karen et al (2019) indicated that access to employment may be further constrained by the costs of transport. Transport affordability should be of great concern. Transport affordability refers to the financial ability of people and societies to access adequate transport services without compromising their ability to purchase other basic goods and services, such as food, housing, education and health (UNECA, 2015). From the above results, the continued use of private commuters is a strain to workers given their earnings.

Q11: In an effort to curb transport challenges, government introduced ZUPCOs. How do you rate the move? 149 participants answered this question. A score of 3.7 was obtained, the score is less than 5 and greater than 0, indicating that the move did not curb the transport challenges in the cities effective enough to be significantly noticed.

Q12: In an effort to curb transport challenges, government introduced ZUPCOs. To what extend has the move eased transport challenges during peak hours? This question was answered by 151 respondents, and a score of 2.7 was obtained. The score is greater than 0 but less than 5 implying that the move to curb transport challenges during peak hours using the ZUPCO concept did not bring significant results.

Public sector efficiency link with the economy's stability and growth, and inadequate reporting time at work impacts were verified by the study. Reporting time to work against the stipulated time is worth to examine its effects on production in the public sector. The summary of responses given by participants is shown below;

#### PUBLIC SECTOR EFFICIENCY WORK TIME AND PRODUCTIVITY AND THE ECONOMY LINK [CELLRA **[CELLRA** Strongly disagree NGE1. Strongly disagree Disagree Disagree [VKGELLERA Neither agree nor.. NGE Neither agree nor... [CELLRA [CELLRA [VALUE] NGE], Agree Agree NGE], [CELLRA [CELLRA [VALUE] [VALUE] Strongly agree NGE], Strongly agree NGE], [VALUE] [VALUE] 20 40 60 80 100 20 40 60

FIGURE IN TABLE 5: PUBLIC SECTOR EFFICIENCY AND PRODUCTIVITY LINKS

58.11% of participants strongly agree that there is a positive link between public sector efficiency and economic growth and stability, and 29.73% agree to the fact while 5.41% were neutral to the relationship, and 4.05% and 2.7% think otherwise. The relationship between work time and productivity was also checked. There is significant confirmation that the relationship is strong. 57.43% strongly agree, and 29.05% agree that being late or leaving early from work affects productivity in the public sector.

Q15: Is time being managed to/from work in the public sector and other related sectors? A score of 3.2 was obtained for this question. The score is very low, just greater that 0 (poorly managed) and less than 5 (fairly managed). The results means that time is not really managed in the public sector. There is a greater diversion from the required normal working hours. This act in general implies that workers are working less than what they have to be working, and this translate to less productivity being yielded. The inability of workers to work for the stipulated times implies that work is not efficiently done and/or work is not done to the fullest. Such affects the general output that is desired per worker and hence effects to the economy. The value of time at work is not utilized in the public sector. Time management problems are a hindrance to effective service delivery (Osawe, 2017).

Participants were required to indicate how much time is lost per day per worker due to coming late or leaving work earlier than normal time. The summary of the responses is shown in Table 1 below;

Table 1: Average Work Time Lost Per Day Per Worker

Average Time	Responses
0 - 30 minutes	2.86%
30minutes - 1 hour	24.29%
1 hour - 2 hours	25.71%
2 hours - 3 hours	25.71%
More than 3 hours	20.00%
None	1.43%

From Table 1 above results, it can be confirmed that time is being lost each day through late coming and early leaving from work. The responses obtained, indicate seriousness of the issue in relation to reduced productivity in the public sector. 20% of participants indicated that more than 3 hours are lost each day, 25.71% believe that between 2 to 3 hours are lost, 25.71% indicated 1 to 2 hours are lost, and 24.29% believe that between 30 minutes to 1 hour is lost. Only 1.43% believe that normal working hours are realized in the sector and 2.86% indicated that less than 30 minutes is lost per day.

Q17: How convenient are Public Sector Buses (transport) in ferrying workers to/from work. A score of 3.8 was obtained for this question. The score is very low, less than 5 (fairly convenient), and this implies that there is no reliability that those workers who uses public sector transport report early to work or do not leave early from work. Frequency and punctuality are very important factors which influence a user's decision whether or not to use public transport (Borhan et al., 2019). Improved access to transport is a necessary (though not sufficient) precondition for increased productivity. Work time is lost through the use of public sector transport. Gobind (2018) indicated that it has often been taken for granted that employees in general should arrive at work within a stipulated time. The public sector bus service is not as frequent as needed, many workers wait for the bus for quite a long period. One of the most common reasons for a traveller to choose to go by car instead of the bus is that it is quicker (Holmgren and Ivehammar, 2020). Long travel time of public buses also causes extra commuting stress to workers.

A concept that public sector transport have defined routes, and are not able to ferry some workers to work, leading them to seek their own means to work, was verified. The summary of the findings is given in Table 2 below:

Table 2: Whether Public Sector Buses have defined routes which misses some points

	Responses
Strongly agree	34.04%
Agree	45.39%
Neither agree nor disagree	15.60%
Disagree	3.55%
Strongly disagree	1.42%

About 34.04% of participants strongly agree, and 45.39% agree that public sector transport have defined routes, and are not able to ferry some workers to work, leading them to seek their own means to work. 15.6% of participants could not agree or disagree to the concept, while 3.55% disagreed and 1.42% strongly disagreed. The results are in support of what has been observed by Karen *et al* (2019) that public transport dependent groups in urban peripheral areas often have difficulties reaching key activities such as work. As noted by Borhan *et al*. (2019) the level of accessibility to transport services is a key factor in planning the facilities for public transport. This should also involve availability of crucial information, such as bus route and schedule. Transport accessibility as indicated by UNECA (2015) has large impacts on both the economy and human development, as improved accessibility to transport can facilitate the achievement of many economic, social and environmental objectives.

The common transport modes by workers to/from work include public sector transport, private transport, ZUPCO buses (including related transport) and other commuters from private players. Participants were asked to indicate how often do public sector workers used the following transport modes to and from work, by ranking. Summary of the results are presented Table 3 below;

Table 3: Ranking of Common Transport Modes to/from Work by Work
---

	1	2	3	4	TOTAL	SCORE
Public sector transport	35.34% 41	24.14% 28	21.55% 25	18.97% 22	116	2.76
ZUPCO buses/related transport	24.03% 31	41.86% 54	17.83% 23	16.28% 21	129	2.74
Other commuters –	17.09% 20	18.80% 22	43.59% 51	20.51% 24	117	2.32
Private transport	25.40% 32	15.87% 20	16.67% 21	42.06% 53	126	2.25

The summary in Table 3 above shows the different views expressed by participants on the rankings of various modes of transport being used by public sector workers to/from work. Overall, public sector transport has a higher score of 2.76 followed by ZUPCO/related transport with 2.74, other commuters 2.32 and lastly private transport with 2.25. The observed summary also relates to the expenses related to the use of the mode of transport. Workers are shown to demand cheaper mode of transport, that relate to their level of income. Mostly its either they use public sector transport, which is free if found or they go for the ZUPCO/related transport which are subsidized. In rare cases, they will use other commuters or private transport which are more expensive. There is greater differences in the average score between the upper two modes and the bottom two modes.

Participants were required to contribute their knowledge on what could be done to ensure public sector workers report full time to work to realise full potential for their roles and duties. The summary of the findings is shown in Table 4 below;

Table 4: Possible Solutions to Transport Challenges faced by Government Workers

	Responses
Increase public sector fleet	65.73%
Improve welfare of workers	80.42%
Provide more flexibility	49.65%
Other (please specify)	11.19%

From Table 4 above, 80.42% of the participants indicated that welfare of workers should be raised for them to report fully at work, 65.73%indicate that increasing public sector fleet will also help to reduce time wasted through coming late to work, 49.65% posit for more flexibility to be given to workers so as to reduce time wastage, and 11.19% of participants have other views outside the given list. Increasing public sector fleet is supported by Kresnanto (2019) who indicated that vehicle growth is a problem that is inseparable from sustainable transportation.

#### V. Conclusion and Policy Recommendations

The study analysed qualitatively the impact that the demand for cheap transport by government workers to/from work has on the production or service delivery in the public sector. The study was motivated by the dire need of the economy to move back into the steady state path for proper economic development after years of poor macroeconomic performance. The study in its analysis observed the various issues around public sector productivity and normal working hours. To cater for increased demand for cheaper transport, the government introduced the ZUPCO concept, through resuscitating the government owned transport operator which was by the age operating far below capacity and also through contracting other players who were in agreement with the benefits of operating under the ZUPCO flag. Such a concept was investigated to confirm its significance in easing transport challenges.

The study through an electronic link obtained 163 responses, where 55.28% were males and 44.72% were females. Those in the 25-34 years group were 41.98%, 35-44 years were 32.1%, 18-24 years were 13.58%, above 55 years were 7.41% and finally 45-54 age were 4.94% of the population. Those with diploma as their highest qualification were 5.52%, degree 49.69%, masters 29.45%, and doctorate 6.75%. 17 participants indicated that they were either students or not working, 13 were self-employed, 64 had a work experience of between 0-5years, 23 had a 5-10 working experience, 28 had a 10-15 years working experience and 16 had working experience of more than 15 years. 54 participants, being majority came from parastatals, 52 from the private sector, 40 from public sector and 11 from non-governmental organisations. 43.67% of participants indicated that they did not own any vehicle either as an individual or as a family, while 56.33% indicated

ownership. 33.33% of participants used private transport when going to work, 18.24% mostly used company transport, 28.93% used public transport, and 19.5% indicated that they mix modes of transport most of the time when going to work.

Transport challenges during peak hours in cities was confirmed a serious problem. Fares charged by private commuters to/from work were found to be relatively expensive compared to employee welfare in the public sector and other related sectors. An effort to curb transport challenges by government through the ZUPCO concept was rated low as a policy, and it did not yield significant results of easing transport challenges during peak hours. Public Sector Buses (transport) used to ferry workers to/from work were found to be not convenient to help manage normal times at work, they have defined routes, and are not able to ferry some workers to work, leading them to seek their own means to work which may be too expensive. Public transport is therefore characterized by inefficiency and unreliability. This has been partly caused by macro-economic fundamentals that have increased operational costs. Workers have been noticed to demand cheaper mode of transport, that relate to their level of income. Mostly its either they use public sector transport, which is free or they go for the ZUPCO/related transport which are subsidized. In rare cases, they will use other commuters or private transport which are more expensive. To ensure public sector workers report full time to work to realise full potential for their roles and duties it has been suggested that welfare of workers should be improved, public sector fleet to be raised and more flexibility be given to workers' working time.

Transport investment is necessary in the public service and country at large. The macro-economic environment should be improved to attract investment in the transport sector. Demand for transit varies by service quality and income. The direct effects of transport investment are to reduce transport time and costs by reducing travel times, decreasing the operating costs of transport and enhancing access to destinations within the network. The study recommends that the ZUPCO concept be revised to bring in efficiency in easing transport challenges. Generally, for every policy, it is best to calculate all impacts, including those that are indirect, longterm and affecting other jurisdictions, and identify their distribution by category, time, location and group. Transport should be provided by both private and public players. A policy framework is a requisite and a crystal clear and mutual partnership between central, local governments, private sector and civic societies has to be existent. Private players should be roped in and allowed to operate to bring in healthy competition in the sector. The volume of public sector fleet seems relatively smaller than the optimal volume, and this calls for additional, and effective management of the current fleet. This will help in accessing some places not currently being accessed by some public sector workers. Due to the increase in technology globally, some workers are able to perform their duties in the comfort of their homes, which may be emphasized and to be well managed. Time management forms a crucial part of economic development for every economy. There is greater need that the government should ensure that every minute is accounted for towards productivity enhancement. If this is well managed, together with other policies, Zimbabwe will attain positive results in its macroeconomic stability wars.

# REFERENCES

- [1]. ADB (2012). Transport Efficiency through Logistics Development: Policy Study. Asian Development Bank.
- [2]. Albalate, D. and Bel, G. (2010). What shapes local public transportation in Europe? Economics, mobility, Institutions and Geography. Transport. Res. Part E, 46: 775-790.
- [3]. Agarwal, M. 2021. General Theories of Consumption Function A Complete Guide. Economics Discussion Net. <a href="https://www.economicsdiscussion.net/consumption-function/general-theories-of-consumption-function-a-complete-guide/7767">https://www.economicsdiscussion.net/consumption-function/general-theories-of-consumption-function-a-complete-guide/7767</a>
- [4]. Ahmad, I. (2020). Zimbabwe Decent Work Check 2020. Amsterdam, WageIndicator Foundation, March.
- [5]. Amoh-Gyimah, R and Aidoo, E.N. (2013). Mode of transport to work by government employees in the Kumasi metropolis, Ghana. Journal of Transport Geography 31: 35–43.
- [6]. Asensio, J., A. Matas and J.L. Raymond, 2003. Redistributive effects of subsidies to urban public transport in Spain. Transport Rev., 23: 433-452.
- [7]. Balcombe, R., Mackett, R., Paulley, N., Preston, J., and Shires, J. (2004). The demand for public transport: A practical guide. Transportation Research Laboratory, TRL Report 593.
- [8]. Bee, C.A (2010). The Effect of Car Ownership on Employment: Evidence from State Insurance Rate Regulation. Job Market Paper.
- [9]. Berg, C.N., Deichmann, U., Liu, Y., and Selod, H. (2017). Transport Policies and Development. The Journal of Development Studies, 53:4, 465-480.
- [10]. Bonga, W. G. (2014). Planning to Fail: An Analysis on Economic Planning Failure in Developing Countries. Social Science Research Network, <a href="https://ssrn.com/abstract=2524857">https://ssrn.com/abstract=2524857</a>.
- [11]. Bonga, W.G. (2019). Measuring Macroeconomic Uncertainty in Zimbabwe. MPRA Paper No. 94759, University Library of Munich, Germany, <a href="https://ssrn.com/abstract=3419976">https://ssrn.com/abstract=3419976</a>.
- [12]. Bonga W.G., and Sithole, R. (2020). Problematic Infrastructure Factors Affecting Development in the 21<sup>st</sup> Century for Zimbabwe. World Journal of Economics and Finance, 6(1): 140-149.
- [13]. Borhan, M.N., Ibrahim, A.N.H., Syamsunur, D., and Rahmat, R.A. (2019). Why Public Bus is a Less Attractive Mode of Transport: A Case Study of Putrajaya, Malaysia. Periodica Polytechnica Transportation Engineering, 47(1), pp. 82-90.
- [14]. Caid, N. (2004). Analysis of the Links Between Transport and Economic Growth. Environment Directorate Environment Policy Committee, Organisation for Economic Co-operation and Development.
- [15]. Chee, W.L and Fernandez, J.L. (2013). Factors that Influence the Choice of Mode of Transport in Penang: A Preliminary Analysis. Procedia - Social and Behavioral Sciences, 91: 120–127.
- [16]. Cihat, P. (2012). The Demand Determinants for Urban Public Transport Services: A Review of the Literature. Journal of Applied Sciences, 12: 1211-1231.

- [17]. Curristine Teresa, Lonti Zsuzsanna and Joumard Isabelle (2007). Improving Public Sector Efficiency: Challenges and Opportunities. OECD Journal on Budgeting, Volume 7 No. 1, pp. 01-41.
- [18]. Cury, P.H.A., and Saraiva, J. 2018. Time and Motion Study Applied to a Production Line of Organic Lenses in Manaus Industrial Hub. Gest. Prod., São Carlos, Vol. 25, No. 4, pp: 901-915.
- [19]. Dargay, J., Gately, D., and Sommer, M. (2007). Vehicle Ownership and Income Growth, Worldwide: 1960-2030. The Energy Journal, 28(4), 143-170.
- [20]. Eggers William D., O'Leary John and Datar Amrita (2019). The future of work in government: Navigating a shifting talent landscape. Deloitte Insights. <a href="https://www2.deloitte.com/us/en/insights/industry/public-sector/future-of-work-in-government.html">https://www2.deloitte.com/us/en/insights/industry/public-sector/future-of-work-in-government.html</a>
- [21]. Estupiñán, N., Gómez-Lobo, A., Muñoz-Raskin, R., and Serebrisky, T. (2007). Affordability and Subsidies in Public Urban Transport: What Do We Mean, What Can Be Done? Transport Cluster, Latin America and the Caribbean Sustainable Department, World Bank.
- [22]. Fisher, R.C. (1997). The Effects of State and Local Public Services on Economic Development. New England Economic Review.
- [23]. Gilderbloom, J. I., Riggs, W. W., & Meares, W. L. (2015). Does walkability matter? An examination of walkability's impact on housing values, foreclosures and crime. Cities, 42(PA), 13-24.
- [24]. Gobind, J. (2018). Transport anxiety and work performance. SA Journal of Human Resource Management, 16(0), a943. https://doi.org/10.4102/sajhrm.v16i0.943
- [25]. Haenisch, J.P. (2012). Factors Affecting the Productivity of Government Workers. SAGE Open, 1–7.
- [26]. Holmgren, J and Ivehammar, P. (2020). Mode choice in home-to-work travel in mid-size towns: The competitiveness of public transport when bicycling and walking are viable options. Transportation Research Procedia, 48: 1635–1643.
- [27]. Huapu Lu, He Ma, Zhiyuan Sun, Jing Wang, (2017). "Analysis and Prediction on Vehicle Ownership Based on an Improved Stochastic Gompertz Diffusion Process", Journal of Advanced Transportation, vol. 2017, pp. 01-08.
- [28]. Jean-Paul Rodrigue and Theo Notteboom (2020). The Provision and Demand of Transportation Services. Accessed 13 August 2020, https://transportgeography.org/?page\_id=5277.
- [29]. Karen Lucas, Gordon Stokes, Jeroen Bastiaanssen, Julian Burkinshaw (2019). Inequalities in Mobility and Access in the UK Transport System. Future of Mobility: Evidence Review, Foresight, Government Office for Science.
- [30]. Killefer, N., & Mendonca, L. (2006, August 14). Unproductive Uncle Sam. Business Week, p. 86.
- [31]. Kresnanto, N.C (2019). Model of relationship between car ownership growth and economic growth in Java. IOP Conference Series: Materials Science and Engineering.
- [32]. Linck, J., and Cochran, D.S. 1999. The Importance of Takt Time in Manufacturing System Design. SAE Technical Paper Series, 1635
- [33]. Machinjike, N and Bonga, W.G. (2021). Fiscal Discipline and Budget Processes: Evidence from Zimbabwe. International Journal of Research and Innovation in Social Science (IJRISS), Volume V, Issue II, PP: 607-616.
- [34]. Mahuni, K., Taru, J., and Bonga, W.G. (2020). Africa's Incomplete Cycles of Development. Peter Lang Publishing, Inc., New York.
- [35]. Makosa, L., Sun, J., Bonga, W.G., Jachi, M., and Sitsha, L. (2021): Does economic policy uncertainty aggravate financial constraints?, South African Journal of Accounting Research, Vol. 35, No. 2, pp: 151-166, https://doi.org/10.1080/10291954.2021.1885233 .
- [36]. Mbara, T.C. (2006). Coping with Demand for Urban Passenger Transport in Zimbabwe: Challenges and Options. 25<sup>th</sup> Southern African Transport Conference, Pretoria, South Africa.
- [37]. Medlock, K., & Soligo, R. (2002). Car Ownership and Economic Development with Forecasts to the Year 2015. Journal of Transport Economics and Policy, 36(2), 163-188.
- [38]. Muchichwa, N. (2016). Working Without Pay: Wage Theft in Zimbabwe. Solidarity Center/Jemal Countess.
- [39]. National Academies of Sciences, Engineering, and Medicine (2018). Critical Issues in Transportation 2019. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/25314">https://doi.org/10.17226/25314</a>.
- [40]. Nowaczyk, J (2020). Four Factors of Production: Land, Labor, Capital & Entrepreneur. Study.Com. <a href="https://study.com/academy/lesson/four-factors-of-production-land-labor-capital-entrepreneurship.html">https://study.com/academy/lesson/four-factors-of-production-land-labor-capital-entrepreneurship.html</a>
- [41]. Nurdden, A., R.A.O.K. Rahmat and A. Ismail, 2007. Effect of transportation policies on modal shift from private car to public transport in Malaysia. J. Applied Sci., 7: 1013-1018.
- [42]. Okpighe, S.O (2015). The Seven Factors of Production. British Journal of Applied Science & Technology, 5(3): 217-232.
- [43]. Osawe, C.O. (2017). Time Management: An Imperative Factor to Effective Service Delivery in the Nigeria Public Service. International Journal of Development and Management Review, Vol.12 No. 1, pp: 152-167.
- [44]. Sustrans (2012). Transport Poverty in England. Available at: <a href="https://www.sustrans.org.uk/our-blog/research/all-themes/all/transport-poverty-in-england/">https://www.sustrans.org.uk/our-blog/research/all-themes/all/transport-poverty-in-england/</a>
- [45]. UNECA (2015). Transport for Sustainable Development: The case of inland transport. United Nations Economic Commission for Africa.
- [46]. Welch, T.F., Gehrke, S.R., and Farber, S. (2018), "Rail Station Access and Housing Market Resilience: Case Studies of Atlanta, Baltimore and Portland," Urban Studies.
- [47]. Windmark, C., Ståhl, J-E., Gabrielson, P., & Andersson, C. (2012). A Production Performance Analysis Regarding Downtime and Downtime Pattern. Paper presented at 22nd International Conference on Flexible Automation and Intelligent Manufacturing, FAIM 2012, Helsinki, Finland.
- [48]. Won, J., Lee, C., and Li, W. (2017). "Are Walkable Neighborhoods More Resilient to the Foreclosure Spillover Effects?" Journal of Planning Literature, pp. 1-14

### **Appendix A: Questionnaire**

#### (A) <u>Demographics</u>

- 1. Sex [Male, Female]
- 2. Age [18-25, 26-35, 36-45, 46+]
- 3. Marital Status [Single, Married, Divorced/Widowed]
- 4. Education level [Diploma, Degree, Masters/PhD]
- 5. Work Experience [Student/Not working, Self-employed, 0-5 years, 5-10 years, 10-15 years, above 15 years]

#### (B) <u>Mode of Transport to/from work</u>

- 6. Which Job Sector best describes where you belong? [Government/Public Sector, Parastatal, Non-Governmental sector, Private Sector]
- 7. Do you own a car as a person or as a family? [Yes, No]
- 8. What mode of transport do you often use when going to work? [Public transport, Company transport, Private transport, Mixed]

#### (C) Transport Situation in Zimbabwe

- 9. In your own opinion, how do you rate transport challenges during peak hours in cities around Zimbabwe? [Rate, 0-10].
- 10. In your own opinion, how expensive are fares charged by private commuters to/from work compared to employee welfare in the public sector and other related sectors? [Rate, 0-10].
- 11. In an effort to curb transport challenges, government introduced ZUPCOs. How do you rate the move? [Scale, 0-10]
- 12. In an effort to curb transport challenges, government introduced ZUPCOs. To what extend has the move eased transport challenges during peak hours? [Scale, 0-10]

### (D) <u>Production and Transport Challenges in the Public Sector</u>

- 13. An efficient public sector is linked to an efficient economy and hence stability and growth. How far do agree? [Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree].
- 14. Being late to work or leaving early from work affects production in the public sector. How far do you agree? [Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree].

#### (E) Assessing Time & Production in the Public Sector

- 15. Is time being managed to/from work in the public sector and other related sectors? [Scale, 0-10]
- 16. On average, how much time is lost per day per worker due to coming late to work or leaving early from work? [none, 0-30 minutes, 30 minutes an hour, 1-2 hours, 2-3 hours, more than 3 hours].
- 17. How convenient are Public Sector Buses (transport) in ferrying workers to/from work? [Scale, 0-10].
- 18. Public Sector Buses (transport), have defined routes, hence are not able to ferry some workers to work, they seek their own means to work or to required picking points. How far do you agree? [Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree].
- 19. How often do public sector workers use the following transport modes to and from work? Please rank from the most used to the least used? [Public sector transport, ZUPCO/related transport, Other commuters, Private transport].
- 20. To ensure public sector workers report full time to work to realise full potential for their roles and duties, what should be done? Tick all the applicable. [Increase public sector fleet, Improve welfare of workers, Provide more flexibility, Other (please specify)].