

# Assessing the influence of internal fleet policies in the management of fleet within urban local authorities in Zimbabwe.

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## Abstract

*Driven by the notable poor fleet management within local authorities in Zimbabwe, the study sought to assess the influence of fleet management policy on the management of vehicles. The study knowledge gap relates to the lack of research on how fleet management policies influence the effective management of vehicles within local authorities. Existing studies have highlighted persistent fleet management challenges related fleet acquisition, disposal and maintenance but have not explored how fleet management policies can address these in order to improve overall fleet management. The study utilized resource based view and contingency theory that underlined the importance of effective resource management and the need for flexibility in decision making. A cross section research design was conducted within 4 urban local authorities in Harare Metropolitan Province. A quantitative methodological approach was adopted, using stratified random sampling technique. Data were collected from a sample size of 347 respondents, determined scientifically using Raosoft sampling tool. The study collected data using structured questionnaire, which were distributed physically. Data was presented in tables and data analysis was done using SPSS. The findings indicate that the inefficiency of fleet management policy negatively influences the efficiency of vehicle acquisition, maintenance, disposal and fuel management. This shows the existence of a weak fleet management policy within local authorities resulting ineffective fleet management, thereby compromising service delivery. The study concluded that fleet management policy within local authorities in Zimbabwe are not well constructed, fails to support effective fleet management. Therefore, the study recommends implementation and continuous review of fleet management policies to support operational needs.*

**Key words:** Vehicle acquisition, maintenance, disposal, fuel management, fleet management policy, local authority.

## Introduction

Local authorities, utilize a diverse range of vehicles and machinery that includes graders, refuse collection trucks, tractors, light vehicles and fire tenders that are all aimed at enhancing their operations (Tambura & Mapuva, 2019). In this regard, effective management of vehicles is critical to ensure effective logistics for the diverse activities within local authorities. Globally, fleet policies are acknowledged as essential mechanisms for attaining efficient fleet management (Mehmood, 2021; Akkartal & Aras, 2021). In United States of America, federal organisations have implemented robust fleet management policies to enhance fleet acquisition procedures through ensuring right fleet sizing for the organisation. This demonstrates the effectiveness of fleet management policies which results in ideal vehicle deployment and thus reducing operating costs. Similarly, in the United Arab Emirates, Rashid and Lugaric (2018) also points to the existence and significance of fleet management policies in enhancing vehicle acquisition, maintenance, and fuel management. The existence of robust fleet management policies provides clear guidelines and standards for both public and private sector organisation, thereby ensuring transparency and accountability within the fleet management process.

Furthermore, organisations in China have instituted well-established fleet management policies which encompass aspect pertaining to vehicle maintenance and disposal, thus enhancing sustainable management of

fleet (Carvalho & Silva, 2024). These comprehensive fleet management policies are designed to enhance maintenance processes, reduce breakdowns, and improve fleet availability. Similarly, in Australia, local authorities have established comprehensive fleet management guidelines for overseeing the entire administration of vehicles (Dwyer et al., 2021). Al Kurdi et al. (2023) reiterates that effective fleet management policies promote effective record keeping, thereby allowing better decision-making and streamline fleet management processes. Essentially, well-established fleet management policies set benchmarks for effective fleet management, through enhancing operational efficiency, resource utilization and organisational competitiveness.

In contrast of the developed nation, most public sector organisation in African countries have witnessed challenges in effective management of fleet due to poor fleet management policies. In Nigeria, absence of robust fleet management policies within state owned organisations has led to delays in vehicle acquisition and replacement of non-operational vehicles (Omoke et al., 2020). In the same view, in Ghana Ampiah (2018) revealed the impact of weak fleet management policies within public institutions which has contributed to several problems in effective administration, accountability and control fleet management activities such as fuel management and maintenance.

In addition, Moi and Ouma (2020) recognized that in Kenya, weak internal fleet management policies within public sector organisations have resulted in overdependence on outsourcing and leasing of key fleet management functions such acquisition and maintenance. This has affected the overall efficiency and effectiveness of fleet management resulting in increased costs and reduced control over fleet operations. However, some public sector organisation in countries such as Namibia and South Africa have established clear fleet management guidelines with the aim of lowering operational costs and fuel usage, thereby enhancing high-quality service delivery (Nautwima & Asa, 2022; Machaba & Ndou, 2024). Therefore, drawing insights from these diverse contexts, is crucial for understanding the relevance of fleet management policies in enhancing fleet administration.

In Zimbabwe, despite of the existence of fleet management policies within local authorities' inefficient management of fleet, remains problematic as evidenced by increased vehicle breakdowns and use of aged vehicles. The knowledge gap identified by the study pertains to the lack of research on how fleet management policies influence the effective management of vehicles within local authorities in Zimbabwe. While there have been studies conducted on fleet management in other countries and their effect on operational efficiency, maintenance costs, and resource utilization, there is dearth of literature specifically focusing on the context of local authorities in Zimbabwe. Existing studies by Marumahoko et al. (2020) and Munuhwa et al. (2020) have highlighted the challenges faced by local authorities in Zimbabwe, such as poor maintenance, aged vehicles, and inefficient management practices. However, these studies have not provided an in-depth insight on how fleet management policies can address these challenges and improve overall fleet management within the context of Zimbabwe's local authorities.

Therefore, this study aimed to fill this knowledge gap by providing insights into how fleet management policies can enhance operational efficiency, improve maintenance, disposal, fuel management and acquisition processes within local authorities in Zimbabwe. Through a thorough analysis of the influence of fleet management policies on these key areas, the study provided valuable information that would guide local authorities in Zimbabwe in developing and implementing effective fleet management policies to improve their overall fleet management practices. Furthermore, poor fleet management in Zimbabwe's local authorities has contributed to challenges such as excessive fuel costs, numerous breakdowns, increased maintenance costs, and inefficient vehicle usage, which compromise effective fleet management. However, the increasing number of challenges associated with poor fleet management activities highlights the importance of a more robust internal fleet management policy to address these challenges.

In light of this backdrop, this study is essential as it fills the knowledge gap and provides insights pertaining to the process of decision-making. The study's objectives were (1) to analyse the extent to which fleet management policy influence vehicle acquisition, (2) to assess the influence of fleet management policy on vehicle maintenance, (3) to evaluate the effect of fleet management policy on vehicle disposal and, (4) to understand the influence of fleet management policy on fuel management.

## **Literature review**

This section discusses the theoretical framework and literature review in line with the study objectives.

### **Theoretical framework**

The two theories underpinning this study are the resource-based view and contingency theory.

#### **Resource-Based View Theory (Penrose, 1959)**

The central idea of the Resource Based View (RBV) theory is that an organization's competitive advantage and success are primarily defined through its distinct resources and capabilities (Freeman et al., 2021). The RBV theory defines resources as either tangible or intangible which are unique to the organisation (Kero & Bogale, 2023). In addition, Barney et al. (2021) classified resources into three groups; physical capital (technologies, production plants, equipment), human capital (training, expertise and judgment) and organisational capital (formal and informal planning, controlling, and coordinating systems) In this regard, competitive advantage arises from aspects related to the different resources ranging from valuable, rare, non-substitutable to imperfectly imitable ones. In addition, the RBV theory emphasizes the strategic utilization of organizational resources and competencies (Zhang et al., 2021).

In the context of fleet management, this approach underscores the relevance of the internal resources (assets) and capabilities of local authorities. Therefore, RBV theory enhances the effectiveness of operations, lowers expenses, and provides improved public services through the proper management of fleet resources (Uyanık, 2023). The fleet policies formulated by local authorities are driven by the RBV concept, which emphasizes the evaluation of the adequacy of internal resources, including fleet size and maintenance procedures. RBV theory assists organizations in effectively utilizing resources to accomplish organizational objectives, thereby resulting in enhanced fleet (Sabourin, 2020). Furthermore, RBV theory provides a lens upon which local authorities can identify the key areas of how resources can be fully utilized to promote efficient fleet management.

#### **Contingency Theory (Fiedler, 1960)**

The concept of contingency contends that there is no single universal generic approach that ensures success, rather the effectiveness of management strategies is dependent on the unique conditions within the particular setting (Temitope & Ufuoma, 2023). According Victor (2020) the contingency theory postulate that an organization's ability to succeed relies on its ability align strategies and systems with internal resources, external environment, and stakeholder requirements. The essence the theory is the acknowledgement that strategies and practices must be dependent on a variety of elements in order attain an optimal fit and organizational effectiveness (Shala et al., 2021). Therefore, the theory underscores the necessity of flexibility in decision-making, as well as recognizing and responding to each situation's distinctive requirements and complexities.

Furthermore, the contingency theory stresses that effective management strategies are supported by policies within an organization (Nassou & Bennani, 2024; Zou, 2024). In the context of this study, the success of the internal fleet policy varies depending on aspects such as fleet size, organizational culture, and available resources. The rationale for adopting contingency theory within the study was that it enabled local authorities to recognize that varying fleet management strategies may be required depending on the unique conditions of the local authority (Liu, 2020; Abu et al., 2024). Similarly, contingency theory promotes policy flexibility and adaptability by considering the particular difficulties and possibilities faced by each local authority. Therefore, in the context of local authorities, contingency theory was essential for evaluating the contextual elements that effect fleet management, such as financial limitations and the state of the vehicles and equipment.

### **Fleet management policy**

A fleet management policy is defined by Eftekhar and Wassenhove (2016) as the establishment of a set of principles and processes for managing, operating, and maintaining a company's fleet. It is a detailed document that outlines the strategic objectives, obligations, and processes used to oversee the administration of vehicles (Kachilala & Dumba, 2022). According to Ampiah (2018) the objective of fleet management policy is to foster

effective and cost-effective fleet management and sustainable practices. Internal policies provide a standardized framework for procurement, maintenance, and disposal of fleet assets, resulting in improved accountability, cost savings, and efficient service delivery (Mehmood, 2021). In the context of this study, fleet management policy refers to the laid out set of rules and guidelines that regulate the entire fleet management practices from acquisition up to disposal of vehicles within local authorities.

According to Boutueil (2016), a good fleet management policy comprises elements such as clear guidelines on acquisition, fuel management, driver management, maintenance, asset disposal, and usage. Therefore, an efficient fleet management policy is founded on the principles of uniformity and consistency. Mehmood (2021) stated that fleet management policies should also incorporate the use of technology to enhance efficiency, promote accountability and transparency in fleet operations. Rojas et al. (2020) also stated that a good policy should have measurable objectives, tasks, and targets that drive continuous improvement in fleet management. In addition, a strong fleet management policy is essential to ensure efficient and effective management of vehicles within an organization (Kachilala & Dumba, 2022). It sets out clear guidelines and procedures for the acquisition, maintenance, usage, and disposal of vehicles, ensuring compliance with regulations and promoting safety. In relation to the RBV theory, a strong and adopted fleet management is essential as it helps to optimize resource utilization, reduce costs, and improve service delivery (Mirheli et al., 2020).

In contrast to a good policy, Akkartal and Aras (2021) denote that a bad fleet management policy lacks clear guidelines on key fleet management activities, such as failure to incorporate technological advancements, leading to operational inefficiencies. In addition, a bad policy lacks measurable objectives and targets, which can hinder the achievement of organizational goals and service delivery objectives (Aflabo et al., 2020). When there is a weak internal fleet management policy in place, organizations may face challenges such as high maintenance costs, inefficient vehicle usage, safety issues, and non-compliance with regulations (Ampiah, 2018). Romero et al. (2024) concluded that whether good or bad, the formulation and implementation of a policy within an organization is also centred on the political will of management.

### **Vehicle acquisition**

Vehicle acquisition is defined by Stokic et al. (2018) as the process of obtaining vehicles to efficiently support organisational operations. It entails the identification, selection, evaluation, and procuring vehicles so as to fulfil operational needs in a cost effective manner (Al Kurdi et al., 2023). In addition, Carvalho and Silva (2024) describes vehicle acquisition as a strategic process of selecting, replacing and upgrading fleet. Effective vehicle acquisition is not merely the procurement of vehicles, but rather a process in which the organization conducts rigorous research concerning the available acquisition options, such as outright purchase, leasing, and hire purchase (Rashid & Lugarcic, 2018). In the context of fleet management, vehicle acquisition is the first crucial stage for organization since it entails the responsibility of procuring vehicles, which improves operational efficiency (Kachilala & Dumba, 2022).

The vehicle acquisition process considers various factors, such as calculating the total cost of ownership, assessing vehicle specifications and needs, and negotiating better prices with vehicle dealers (Stokic et al., 2020). Taking into consideration all these factors is crucial for organizations to make ideal decisions that are suitable to organizational objectives and operations. According to Redmer (2020), fleet acquisition involves right-sizing, a concept that ensures that the organization owns or has an optimum fleet size and composition. Right fleet sizing enables cost minimization while maximizing efficiency. In essence, right fleet sizing strives to attain an optimal balance between possessing sufficient vehicles to fulfil operational needs while minimizing the extra capacity that goes underutilized.

Within the framework of RBV theory, efficient vehicle procurement corresponds to the organization's internal resources and competencies. In this respect, local authorities can strengthen their operations and enhance the provision of service delivery by procuring different types of vehicles that fulfil their unique fleet requirements. Akkartal and Aras (2021) state that vehicle acquisition is important in organizations, as it ensures that the organization remains competitive. This is achieved through the procurement of modern vehicles, such as electric and hybrid vehicles, which lowers operational costs compared to conventional diesel or petrol - powered vehicles (Bentley & Hodge, 2020). Furthermore, this is supported by contingency theory, which underscores the necessity for businesses to modify their vehicle acquisition approaches in response to evolving operating

environment (Nassou & Bennani, 2024). Eventually, organizations must consistently assess and enhance their vehicle acquisition strategies to guarantee sustained success in successful fleet management.

### **Vehicle maintenance**

Vehicle maintenance, is defined by Gackowiec (2019), as the routine tasks performed to guarantee the efficient functionality, safety, and increased lifespan of vehicles. It is a continuous process that involves all maintenances undertakings and documentation of activities to ensure vehicles are roadworthy and compliant with regulations (Petrović & Vujanovic, 2024). According to Imbuga and Guyo (2018), vehicle maintenance actions involve performing routine upkeep procedures, such as oil and filter changes, inspections, and promptly resolving any kind of breakdown. Rashid and Lugaric (2018) concur that the concept of vehicle maintenance relates to the upkeep procedures that organizations undertake to guarantee the durability of their vehicles. Therefore, effective vehicle maintenance entails a systematic practice of repairing and servicing of vehicles in order to ensure proper functionality (Vujanovic et al., 2017).

Vehicle maintenance is critical in fleet management because it reduces downtime, lowers operational costs, and ensures the safety of vehicle (Chiparo et al., 2022). Proper vehicle maintenance is critical for firms because it has immediate effects on fleet management. Regular maintenance helps minimize vehicle breakdowns and unplanned repairs, thereby reducing the risk of operational disruption. Key aspects such as regular inspections, timely servicing, the use of genuine components, staff training on appropriate maintenance actions, and comprehensive documentation of maintenance records are essential elements of an ideal vehicle approach (Ampiah, 2018; Stokic et al., 2018; Castillo & Parlikad, 2024). Furthermore, through proactive vehicle maintenance, companies can increase fleet longevity, maximize fuel economy, and guarantee adherence to safety and environmental standards.

One of the most significant barriers to providing quality and efficient services is the high cost of vehicle maintenance. According to Redmer (2020), when fleet size increases, maintenance expenses also increase. Similarly, this notion is also applicable in the context of local authorities that have a huge fleet size which is associated with high financial and logistical burden in order effectively keep the fleet in good working conditions. Vehicle maintenance helps organizations improve operational efficiency, customer satisfaction, and reliability by maintaining their fleet of vehicles under excellent working conditions (Vujanovic et al., 2017; Sa-Nga-Ngam et al., 2024). In addition, the implementation of rigorous vehicle maintenance plans helps organizations minimize maintenance costs and enhance responsiveness to service delivery needs (Aflabo et al., 2020). On the other hand, contingency theory highlights the importance of adapting organizations' maintenance procedures to shifting circumstances and external influences (Akkartal & Aras, 2021). This may include modifying the maintenance plans in response to vehicle usage, environmental circumstances, and technological improvements. Therefore, investing in predictive maintenance technologies to monitor vehicle performance and plan maintenance is crucial to ensure proactive fleet management.

### **Vehicle disposal**

Munuhwa et al. (2020) defines vehicle disposal as the manner in which organizations get rid of vehicles that are no longer functional. Vehicle disposal is administrative and technical process which necessitates the removal of unwanted vehicles for the fleet due so several reason such as age, increased maintenance cost, downtime and depreciation (Ampiah, 2018, Bentley & Hodge, 2020). In addition, Aflabo et al. (2020) describes vehicle disposal as the decision making process and operational undertakings performed in order to decommission vehicles are considered to be uneconomically viable. The goal of vehicle disposal is to ensure that organizations continually maintain functional and efficient vehicles that support the operations of the organization (Rashid & Lugaric, 2018). In this regard, different methods can be utilized by organizations to dispose of their vehicles, including auctioning, selling, trade ins, donations, and destruction (Kuznetsova et al., 2021).

In line with RBV theory, vehicle disposal is an important internal capability that can influence fleet management by disposing vehicles at the appropriate time, thereby acquiring newer and better-performing vehicles. It assists organizations in optimizing their fleet resources, lowering operational expenses, and maintaining up-to-date and dependable vehicles (Kachilala & Dumba, 2022). Disposing non-functional and aged vehicles assists

organizations in saving money on avoidable costs related to repairs, maintenance, operations, and fuel (Stokic et al., 2018). Usually, older vehicles are associated with higher maintenance costs and frequent breakdowns, all of which may negatively affect their operational effectiveness (Munuhwa et al., 2020). Contingency theory acknowledges that vehicle disposal policies should constantly be reviewed and adjusted in response to changing operating conditions, such as technological developments and legislative changes. Furthermore, vehicle disposal enables businesses to upgrade their vehicles while benefitting from technological advances (Redmer, 2020; Stokic et al., 2020). Eventually, replacing outdated vehicles with more fuel-efficient vehicles improves operational efficiency within the organization.

### **Fuel management**

Fuel management refers to the tactics and procedures used to manage fuel usage for the entire fleet of vehicles (Kanyepe, 2023). According to Pašagić et al. (2020) fuel management is the strategic administration of fuel resources which encompass planning and monitoring activities in order to improve fuel usage. Furthermore, Rashid and Lugaric (2028) defines fuel management as organised approach which incorporates systems to effectively oversee, document and accounts for fuel consumption. Fuel management entails to all the processes involved in the coordination and administration of activities related to fuel procurement, storage, allocation and usage (Ampiah, 2018). Therefore, effective fuel management encompasses aspects that ensure accurate monitoring and controlling of usage for the entire fleet.

Furthermore, for organizations that own and operate vehicles, efficient fuel management is essential because it lowers the operating costs. According to Rashid and Lugaric (2018), fuel cost is one of the highest costs within fleet management, accounting for approximately 20 to 30% of fleet management cost. Although fuel efficiency is influenced by different factors such as vehicle type, maintenance practices, and driver behaviour, Jayapal et al. (2023) postulated that effective fleet management strives to continuously enhance fuel efficiency, thereby reducing operational costs. The implementation of measures such as effective route optimization, routine vehicle maintenance, driver training, and installing fuel monitoring devices is paramount to effectively minimize and monitor fuel usage (Zhang et al., 2021; Tanasuica & Román, 2024). In the context of RBV theory, effective management of fuel resources enhances operational efficiency (Aflabo et al., 2020). Therefore, fuel efficiency and consumption are crucial aspects that drive fleet management efficiency.

### **Hypotheses development**

A study conducted by Boutueil (2016) concluded that strategies adopted for vehicle acquisition are essential for enhancing effective fleet management. In addition, Stokic et al. (2020) concur that the efficient procurement of vehicles has a significant impact on fleet management by efficiently managing maintenance related costs. Chiparo et al. (2022), in their study of state-owned enterprises in Zimbabwe, revealed that fleet management policies significantly influence the timely acquisition of vehicles. Based on the empirical evidence provided above, this study hypothesizes that:

*H<sub>1</sub>. A well-constructed fleet management policy positively influences vehicle acquisition processes.*

A study by Sa-Nga-Ngam et al. (2024) revealed that fleet management policy has an influence on vehicle maintenance by enabling cost effective operations and improved service delivery. Furthermore, Vujanovic et al. (2017) highlighted the importance of linkages between fleet management policy implementation and vehicle maintenance outcomes. The study further points out that integrating maintenance activities and policy objectives results in an increased vehicle lifespan and availability. In addition, Imbuga and Guyo (2018) concluded that there is a positive relationship between fleet management policy and the effectiveness of vehicle maintenance activities. A study by Castillo and Parlikad (2024) showed that utilizing a combination of preventive and predictive vehicle maintenance strategies within the fleet management policy has an influence towards, reducing maintenance costs, resource allocation, and improve vehicle availability. Therefore, this study hypothesized that:

*H<sub>2</sub>. A well-constructed fleet management policy positively influences vehicle maintenance.*

A study conducted by Woody et al. (2024) showed that fleet management policy has a significant influence on the process of vehicle disposal. The study further suggests that fleet management policy shape decision-making and enhance effective fleet management by establishing optimum disposal timeframes. Similarly, Marin and Zobolin (2020) concur that fleet management policy influences the prompt disposal of vehicles, enabling the efficient replacement of older vehicle models with newer efficient models. Boutueil (2016) states that fleet management policy is essential in improving operational efficiency by streamlining vehicle disposal procedures, developing clear guidelines, and simplifying decision-making. Munuhwa et al. (2020) agree that there is a need to determine the optimal disposal time for vehicles to enhance the effective management of vehicles. In addition, a study conducted in Russia by Kuznetsova et al. (2021) highlighted that organizational policies are key for establishing a uniform disposal system for vehicles that are no longer operational. Based on the empirical literature, this study hypothesizes that:

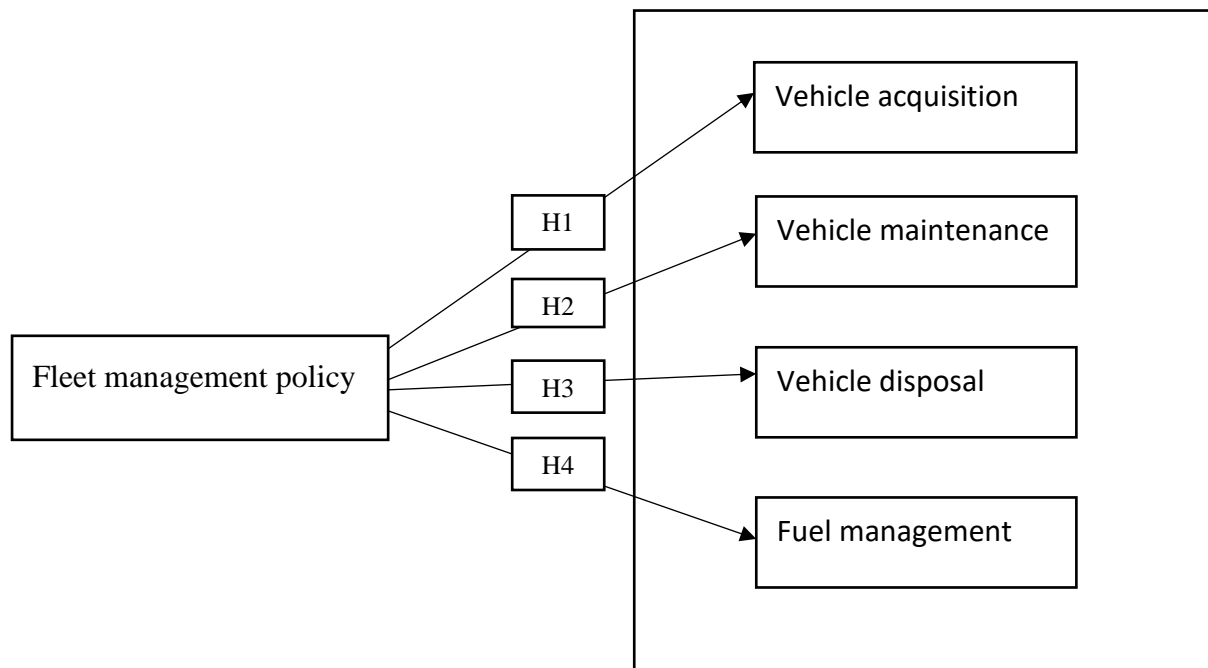
*H<sub>3</sub>. A well-constructed fleet management policy has a positive influence on vehicle disposal processes.*

A study conducted by Pašagić et al. (2020) stated the importance of fleet management policy for effective fuel management. This study further states that incorporating technology results in improved resource allocation and enhances decision making. Zhang et al. (2021) underscored the need to utilize technology to promoting effective fuel management. Similarly, Petrović and Vujanovic (2024) support the notion that the use of advanced technology in managing fuel results in fuel related cost savings. A study by Munahar et al. (2023) pointed out that establishing clear policy objectives for fuel management influences the management of fuel. In this respect, the study hypothesized that:

*H<sub>4</sub>. A well-constructed fleet management policy has a positive effect on fuel management.*

### Conceptual framework

Figure 1 shows the proposed conceptual framework for the study, based on the aforementioned empirical review. The conceptual framework shows the relationship between the study variable as indicates by the hypotheses H1, H2, H3, and H4.



**Figure 1. Conceptual framework**

Source: Authors (2025).

## Methodology

This study adopted a positivism research philosophy which focuses on the application of factual facts and scientific methods to comprehend and explain the research problem (Taherdoost, 2021). Positivism was adopted because it aligns with the research objective which were quantitative, thereby allowing the scientific and systematic approach for data collection and analysis. The study employed a quantitative research approach to gather and analyze of numerical data. Quantitative approach allowed for statistical analyses and hypotheses testing thereby establishing the relationship of the study variables (Pilcher & Cortazzi, 2023). In this study utilizing a quantitative approach enabled the researcher to establish causal relationships between fleet management policy and effectiveness of fleet management practices such as acquisition, disposal, maintenance, and fuel management.

A cross-sectional survey design was utilized in this study, and the target population comprised 3500 administrative employees from 4 urban local authorities namely Harare, Ruwa, Epworth and Chitungwiza city councils within Harare Metropolitan Province of Zimbabwe (National Employment Council, 2022). A cross-sectional survey design was chosen because it enables researchers to gather data from a broad range of respondents, thereby obtaining valuable insights (Zangirolami-Raimundo et al., 2018). Similarly, a cross-sectional survey research design provided an overview of the state of fleet management policies within local authorities in Zimbabwe.

A sample size of 347 participants was determined using the Raosoft sample size calculator. The online Raosoft sample size calculator was utilized in determining the sample size because of its simplicity in calculating the sample size (Althubaiti, 2022). The study utilized a stratified random sampling technique by dividing the population of employees from the 4 local authorities into three strata which constituted of the top management, middle management, and lower level employees. The strata were distributed in such a manner that the top management accounted for 15% of the entire sample size, middle management comprised 25%, and lower level employees constituted 60%. This approach guaranteed that each stratum was proportionally sampled, which gave an accurate representation of viewpoints throughout various levels management within local authorities. In addition, Noor et al. (2023) states that adopting the stratified random sampling technique ensures the equitable selection of participants from the intended target population, enhancing the validity and reliability of the study. A structured questionnaire was used in this study to collect quantitative data. Using a questionnaire allowed the researchers to collect data in a cost effective manner, easier data quantification, providing standardized responses, and enabling collection of huge amounts of data over a short time frame (Dorneles & Mathias, 2022; Taherdoost, 2022; Ranganathan & Caduff, 2023). The questionnaire was distributed and collected physically from October 2024 to November 2024 giving the participants time to complete the questions at their own convenience.

The study utilized a structured Likert questionnaire consisting of questions with responses ranging from 1 (strongly disagree) to 5 (strongly agree), to collect quantitative data. The design and development of the questionnaire items were guided by the research objectives and literature. The questionnaire comprised five sections, as shown in Table 1, which included Fleet Management Policy (FMP), Vehicle Acquisition (VA), Vehicle Maintenance (VM), Vehicle Disposal (VD), and Fuel Management (FM). The study ensured reliability using Cronbach's alpha reliability test, which captured all study variables and was within the acceptable parameters of Cronbach's alpha. On the other hand, to ensure validity of the questionnaire the researchers conducted a pilot test, upon which the participant's feedback was used as basis for refining and validating the questionnaire. To safeguard the confidentiality and anonymity of the participants, a written cover letter which sought informed consent was attached to the questionnaire. By so doing this the study guaranteed the privacy of data collected from participants and, this enabled the participants to participate voluntarily.

## Findings and discussions

This section presents the finding and discussion of the study.

### Fleet management variables

Table 1 shows questionnaire statement comprising of five study variables: internal fleet management policy, vehicle acquisition, vehicle maintenance, vehicle disposal and fuel management.



**Table 1. Questionnaire statement**

<b>Internal Fleet Management Policy</b>	
FMP_1	Fleet management policy has clear key performance indicator to measure fleet performance
FMP_2	There are clear communication mechanisms that support efficient management of fleet
FMP_3	The policy promotes cost effective management of fleet resources
FMP_4	The policy is effective in preventing and mitigating fleet management risks
<b>Vehicle Acquisition</b>	
VA_1	There are clearly defined vehicle acquisition procedures
VA_2	Local authority comply to the Public Procurement and Disposal Act when procuring vehicles
VA_3	Vehicle acquisition is in alignment with local authorities operational needs
<b>Vehicle Maintenance</b>	
VM_1	Maintenance procedures are clearly laid down
VM_2	There is consistency regarding maintenance procedures
VM_3	There are clear laid down timelines for repairs and routine maintenance
<b>Vehicle Disposal</b>	
VD_1	Vehicle disposal policy is transparent in disposing vehicles
VD_2	There is consistence regarding to the vehicle disposal methods
VD_3	Vehicle disposal is performed at the right time
VD_4	The local authority follows the recommended vehicle disposal guidelines established by the Government
<b>Fuel Management</b>	
FM_1	Fuel procurement processes are in alignment with government regulations
FM_2	The policy has set clear guidelines to prevent fuel misuse or theft
FM_3	Local authority is efficient in monitoring of fuel usage and consumption
FM_4	There are clear procedure for fuel allocation

Source: Authors (2025).

### Scale validation

Table 2 shows the reliability results of Cronbach's alpha values ranging from .789 to .898 for the five variables, that shows that the responses across the set of questions were consistent. The study findings are in line with Ranganathan and Caduff (2023), who states that an acceptable reliability score should be above 0.7.

### Reliability statistics

Variable	Cronbach Alpha items	Number of Items
Internal Fleet Management Policy	.887	4
Vehicle Acquisition	.801	3

Vehicle Maintenance	.898	3
Vehicle Disposal	.799	4
Fuel Management	.789	4

Source: Authors (2025).

### Convergent validity test results

The results of the convergent validity and reliability analysis shown in table 3 for all five constructs indicate that the constructs had strong validity and reliability. The factor loadings for all items in each construct are above 0.75, indicating strong relationships with their respective constructs. The individual item reliability scores were also good, ranging from 0.741 to 0.887 for the internal fleet management policy, 0.811 to 0.822 for vehicle acquisition, 0.790 to 0.835 for vehicle maintenance, 0.790 to 0.860 for vehicle disposal, and 0.790 to 0.823 for fuel management. Cronbach's Alpha values for each construct were all above 0.798, indicating high internal consistency reliability. The composite reliability values also support good reliability for each construct. Overall, these results indicate that all constructs were valid and reliable measures in the study and effectively capture their intended concepts as recommended by (Taherdoost, 2022).

### Convergent validity

Construct	Item	Standard factor Loading	Individual Item reliability	Cronbach's Alpha	Composite reliability
Internal Fleet Management Policy	FMP_1	0.8113	0.887	0.832	0.790
	FMP_2	0.7913	0.741		
	FMP_3	0.8834	0.800		
	FMP_4	0.8960	0.786		
Vehicle Acquisition	VA_1	0.7564	0.811	0.798	0.811
	VA_2	0.7984	0.822		
	VA_3	0.8400	0.821		
Vehicle Maintenance	VM_1	0.7964	0.835	0.812	0.820
	VM_2	0.8654	0.798		
	VM_3	0.8123	0.790		
Vehicle Disposal	VD_1	0.7659	0.860	0.790	0.810
	VD_2	0.7900	0.832		
	VD_3	0.8189	0.799		
	VD_4	0.7467	0.856		
Fuel Management	FM_1	0.8342	0.801	0.823	0.797
	FM_2	0.8976	0.790		
	FM_3	0.7808	0.793		
	FM_4	0.8970	0.823		

Source: Authors (2025).

### Descriptive statistic summary

Table 4 shows the descriptive statistics that summarize the findings related to the research objectives.

### Table 4. Descriptive statistics

	N	Mean	Std. Deviation
FMP_1	347	1.583	.925
FMP_2	347	1.783	.993
FMP_3	347	2.033	1.134
FMP_4	347	1.816	1.214
VA_1	347	2.116	1.366
VA_2	347	4.416	1.046
VA_3	347	2.466	1.431
VM_1	347	1.983	1.127
VM_2	347	1.700	1.197
VM_3	347	2.033	1.206
VD_1	347	2.783	1.462
VD_2	347	1.733	1.006
VD_3	347	1.600	1.304
VD_4	347	1.533	.503
FM_1	347	2.183	.892
FM_2	347	2.783	1.485
FM_3	347	1.000	.000
FM_4	347	3.550	1.333
Valid N (listwise)	347		

Source: Authors (2025).

### Internal fleet management policy

Table 4 show findings regarding the efficiency of internal fleet management policy revealed mixed results (FMP1 to FMP4). *FMP1* measured the extend upon fleet management policy had a clear key performance indicator to measure fleet performance recorded a low, with a mean score of 1.583. Similarly, *FMP2* assessed the communication mechanisms supporting efficient fleet management received a moderate rating, with a mean score of 1.783. *FMP3* assessed how fleet policy promotes cost-effective resources management, recorded a low a mean score of 1.816. Also, the effectiveness of the policy in preventing and mitigating fleet management risks *FMP4* scored a low mean of 2.033.

The findings from Table 4 showed substantial shortcomings pertaining the internal fleet management policy of local authorities in Zimbabwe. This is evidenced particularly in areas such as establishing performance indicators, promoting cost-effective resource management, and addressing fleet management risks. The study findings resonate with the studies by Redmer (2020) and Zhang, et al (2021), which emphasized the importance of establishing clear fleet metrics which enhances operational efficiency. The findings also portray an indication of higher operational costs in the management of fleet as a result of the presence of poor fleet management policy with local authorities.

### Vehicle acquisition

The findings in table 4 assess the effect of the fleet management policy on vehicle acquisition. The descriptive statistics summary shows the mean scores for the three aspects of vehicle acquisition (VA1, VA2, and VA3). *VA1* measured the clarity of the acquisition process and recorded a low mean of 2.116, whereas *VA2* assessed the compliance of local authorities with the Procurement and Disposal Act when procuring vehicles and scored a high mean of 4.416. In contrast, *VA3* assessed the alignment of the acquisition process to operational needs and recorded a low mean of 2.466.

The findings of VA1 and VA3 showed a low mean, representing a lack of clarity on the acquisition process and the misalignment in identifying the specific operations needs that are supported by the vehicle acquisition process. The lack of clarity in the acquisition process results in a misalignment of the operational needs, which leads to a mismatch in the right fleet sizing. These results are supported by Bentley and Hodge (2020), who emphasize the need for the right fleet sizing within local authorities. Akkartal and Aras (2021) supported the

importance of clear acquisition guidelines that enable sustainable fleet management. On the other hand, a high mean for **VA2** implies that local authorities in Zimbabwe comply with the Procurement and Disposal Act when procuring vehicles. These findings resonate with those of Chiparo et al. (2022), who showed that state-owned enterprises in Zimbabwe comply with the legislation governing public procurement.

### **Vehicle maintenance**

Table 4 presents the findings related to the effectiveness of the fleet management policy on vehicle maintenance. The descriptive statistics revealed **VM1** which assessed the clarity of maintenance procedures, scored a low mean of 1.983, while **VM2** evaluated the consistency of maintenance procedures, and **VM3** explored the timeframe responsiveness undertaken in carrying out maintenance tasks and recorded a low mean of 2.033. The low means for aspects of vehicle maintenance, such as clarity **VM1**, consistency **VM2** and responsiveness **VM3**, revealed major shortcomings concerning how local authorities handle their vehicle maintenance actions.

The overall findings indicate that, while fleet management policy has created maintenance processes, there are challenges in maintaining uniformity and providing defined schedules for maintenance tasks. The study findings are in line with the findings of Munuhwa et al. (2020), which state that lack of clear maintenance is associated with drawbacks such as increased chances of vehicle breakdowns and downtime. In addition, the findings revealed inconsistencies in the execution of maintenance actions, which affect the functionality of the vehicle. Gackowiec (2019) argued that rigid maintenance strategies negatively affect operational efficiency and recommended an adaptive maintenance approach.

These poor results have negative implications for local authorities, as they can lead to increased vehicle downtime, reduced operational efficiency, higher maintenance costs, and decreased service delivery quality. For example, a lack of clarity in maintenance procedures may result in misunderstandings among maintenance staff, leading to inefficiencies and potentially costly errors during repair. Consistency issues can also lead to varying maintenance standards across the fleet, impacting vehicle performance and longevity. Inadequate responsiveness in carrying out maintenance tasks can prolong vehicle downtime, affect service delivery timelines, and compromise public safety. Roberts et al. (2018) and Thompson et al. (2020) support the importance of clear and consistent maintenance procedures with timely responsiveness in fleet management practices to ensure cost efficiency and operational effectiveness. Therefore, it is essential for local authorities in Zimbabwe to address these deficiencies promptly through improved policies, training, and monitoring to enhance vehicle maintenance practices and ultimately optimize fleet management operations.

### **Vehicle disposal**

The findings in table 4 assess the effect of the fleet management policy on vehicle disposal. The descriptive statistics summary shows the mean scores of the four aspects of vehicle acquisition (**VD**, **VD2**, **VD3**, and **VD4**). **VD1** assessed the transparency of the disposal policy and scored a low mean of 2.783, whereas **VD2** had a low mean of 1.733 in measuring the consistency of the vehicle disposal methods used. In addition, **VD3** assessed disposal timeframes and scored a low mean of 1.600.

The findings revealed that there are serious shortcomings in transparency, consistency, and efficiency within vehicle disposal procedures, as influenced by the fleet management policy. This is indicated by poor mean scores for **VD1**, **VD2**, and **VD3** which show a lack of transparency, inconsistencies pertaining to the techniques employed, and notable inefficiencies within disposal timelines within the disposal process. Kuznetsova et al. (2021) confirmed the study findings, highlighting the necessity of appropriate vehicle disposal guidelines to ensure effective vehicle disposal processes. These shortcomings identified within these result in ineffectiveness, increased maintenance costs, and reduced fleet performance. In addition, a study by Aflabo et al. (2020) supports similar findings, indicating a critical requirement for policy adjustments and systematic improvements to tackle vehicle disposal challenges. In contrast with the other variables, **VD4** had a higher mean score of 4.53 in assessing the local authorities' compliance with vehicle disposal guidelines, as established by the government. This implies a high degree of compliance with the Procurement and Disposal Act. The study's findings concur with prior research by Kachilala and Dumba (2022), which underlined the necessity for organizations to comply with governmental regulations, thereby encouraging sustainable practices within fleet management. The

emphasis on conformity with government regulations strengthens the effectiveness of internal fleet management regulations.

### Fuel management

Table 4 presents the findings of assessing the effectiveness of the internal fleet policy on fuel management practices. *FM1* showed a low mean score of 2.183, which assesses the alignment of fuel procurement processes with government regulations. The results illustrate significant gaps in fuel procurement. Studies by Rashid and Lugaric (2018) and Bentley and Hodge (2020) support these findings by underlining the critical importance of integrating fuel management strategies to ensure compliance with legislative requirements. This results in cost-effectiveness and transparency within the fuel management system. *FM2* assessed the presence of clear guidelines to prevent fuel misuse or theft and recorded a low mean score of 2.7833.

The results show the lack of comprehensive guidelines that mitigate fuel misuse, which leads to higher possibilities for fuel mismanagement. Furthermore, Akkartal and Aras (2021) stated that weak guidelines compromise operational efficiency and the effective management of vehicles. According to Ampiah (2018), establishing clear guidelines for the management of fuel is critical for ensuring cost effective operation. In addition, a low mean score of 1.000 for *FM3* was recorded, which assesses the efficiency of local authorities in monitoring fuel usage and consumption. The findings imply that there are weak systems within local authorities to adequately monitor fuel consumption, resulting in inefficiencies, thereby compromising service delivery. These findings are in line with those of Jayapal et al. (2023), who postulated that effective fleet management strives to continuously enhance fuel efficiency.

*FM4* showed an average mean score of 3.550 for evaluating the presence of clear procedures for fuel allocation. *FM4* findings shows that the procedures are not entirely clear on how fuel is allocated in a transparent manner, at the same time the local authorities are heavily reliant on manual systems for fuel management. However, the study findings are not in alignment with prior research by Sakno et al. (2021), which emphasizes investment in fleet management technologies in promoting accountability with fuel allocation processes, which ensures effective management of fuel resources. This is an indication that as much as the local authorities have a fuel management system in place, the system does not respond to contemporary fleet needs. This demonstrates the extent to which the local authorities in Zimbabwe embrace modern fleet management technologies that are crucial for effective fuel management. However, the findings revealed that the rigidness of fleet management policy in local authorities has resulted on reliance on manual systems and failure to adapt to technological changes.

### Regression analysis

Regression analysis was used to assess the influence of fleet management policy on vehicle acquisition, maintenance, vehicle disposal and fuel management. The regression analysis provided insights into the statistical strength of the relationships among the variables (Hafsa, 2019; Dorneles & Mathias, 2022). Furthermore, the study used regression equation expressed as:

$$PW = \beta_0 + \beta_1 E + \beta_2 AI + \beta_3 IDM + \varepsilon$$

Where:

$$\text{Fleet management policy} = 5.626 + (0.667 * \text{Vehicle Acquisition}) + (0.661 * \text{Vehicle Maintenance}) + (0.669 * \text{Vehicle Disposal}) + (0.683 * \text{Fuel Management})$$

**Table 5. Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	5.626	1.587		3.546	.001
Vehicle Acquisition	.667	.117	.658	.056	.000

Vehicle Maintenance	.661	.129	.674	4.047	.000
Vehicle Disposal	.669	.158	.667	.1.069	.000
Fuel Management	.683	.158	.680	.524	.000

a. Dependent Variable: FMP  
Source: Authors (2025).

Table 5 presents coefficients of results, indicating that fleet management policy had a positive influence on the vehicle acquisition process, as confirmed by a standardized coefficient of 0.658. These results are influenced by factors such as the presence of clear key performance indicators, clear communication mechanisms, cost effective vehicle management, well defined vehicle acquisition procedures, compliance legislation, and alignment policy with operational needs. The findings showed a unit increase of 0.667 because of a well-defined fleet management policy for local authorities and clear vehicle acquisition processes. Therefore, for urban local authorities a well-defined fleet management policy promotes clarity of acquisition, and optimizing processes, resulting in improved distribution of resources. Dwyer et al. (2021) support the finding that a well-defined fleet management policy has a positive influence on the vehicle acquisition process that promotes the right fleet sizing in organizations.

In addition, the coefficient results show that the fleet management policy has a positive influence on vehicle maintenance actions, as indicated by the standardized coefficient of 0.674. This positive relationship is driven by factors including clear and consistent maintenance procedures. A unit score increase of 0.661 in vehicle maintenance shows proper vehicle maintenance strategies, which is an indication of an efficient fleet management policy. In the context of local authorities well defined fleet management policy promotes effective functionality of the vehicles and reduce downtime. This finding is supported by Gackowiec (2019), who showed that effective maintenance strategies are an indication of a clear maintenance policy and frameworks that give direction to proper maintenance systems.

Furthermore, table 5 shows the positive coefficient influence of fleet management policy on vehicle disposal in local authorities in Zimbabwe, as indicated by the standardized coefficient of 0.667. This positive effect was influenced by factors such as transparency, consistency, right timing for disposal, and adherence to disposal guidelines established by the government. In addition, the findings show that every unit with an increase of 0.669 in vehicle disposal processes translates into the effectiveness of vehicle disposal strategies in fleet management policy. Therefore, well-defined disposal fleet policy in local authorities promotes the right disposal timing and reduced usage of aged fleet that is associated with high operational costs and poor performance. These results are consistent with the findings of Munuhwa et al. (2020), who alluded to the importance of establishing the right time for disposal. Similarly, Kuznetsova et al. (2021) emphasized the importance of a comprehensive approach to disposing of non-functional vehicles which improves organizational performance.

Moreover, fuel management recorded a standardized coefficient score of 0.680, which showed a positive effect of the fleet management policy on fuel management. This effect is further supported by underlying factors, including clarity in the fuel procurement process, measures to prevent fuel misuse, and efficient fuel allocation and monitoring. The results show that an increase in the units of fuel management by 0.683 indicates effective fuel management strategies. In the same vein a well-constructed fuel management ensures adequate fuel distribution and allocation, in relation to operational needs in local authorities. Therefore, these results imply that efficient fuel management strategies are an indication of a robust fleet management policy. Kanyepe (2023) stated that the effectiveness of fuel management influences organizational performance. Similarly, Romero et al. (2024) emphasize that organizations should continuously implement measures to curb fuel misuse.

## Hypothesis testing

Table 6 shows the correlation analysis which was used to test the study hypotheses.

### Table 6. Hypothesis Testing

Construct		Fleet management policy	Vehicle Acquisition	Vehicle Maintenance	Vehicle Disposal	Fuel Management
Fleet management policy	Pearson correlation Sig. (2-tailed) N	1 347				
Vehicle Acquisition	Pearson correlation Sig. (2-tailed) N	.178 .450** 347	1 .000** 347			
Vehicle Maintenance	Pearson correlation Sig. (2-tailed) N	.400 .000** 347	.451 .000** 347	1 .010** 347		
Vehicle Disposal	Pearson correlation Sig. (2-tailed) N	.300 .000** 347	.200 .000** 347	.145 .058** 347	1 .060** 347	
Fuel Management	Pearson correlation Sig. (2-tailed) N	.192 .000** 347	.178 .126** 347	.155 .158** 347	.145 .213** 347	.1 .350** 347

*Correlation is significant at  $p < 0.01$  level (2 tailed)*

Source: Authors (2025).

### **H<sub>1</sub>. A well-constructed fleet management policy positively influences vehicle acquisition processes.**

The correlation coefficient between fleet management policy and vehicle acquisition is significant at ( $r=0.178$ ,  $p < 0.01$ ). The results show a positive association between the fleet management policy and vehicle acquisition. The findings reveal that a well-constructed fleet management policy, positively influences vehicle acquisition through ensuring right fleet sizing and acquisition timing, that in turn leading to informed procurement decisions in local authorities. Previous studies that include Stokic et al. (2020), Chiparo et al. (2022), agree with the findings that a well-constructed and implemented fleet management policy provides a structured framework, which ensures a cost-effective management of fleet.

### **H<sub>2</sub>. A well-constructed fleet management policy positively influences vehicle maintenance.**

The correlation coefficient between fleet management policy and vehicle maintenance is significant at ( $r=0.400$ ,  $p < 0.01$ ). The results indicate a positive relationship between the fleet management policy and vehicle maintenance. The findings reveal that fleet management policies have a positive significant effect on vehicle maintenance because they establish guidelines regarding maintenance activities that affect vehicle lifespan and operational costs in local authorities. Studies by Sa-Nga-Ngam et al. (2024), Castillo and Parlikad (2024) highlight that a comprehensive fleet management policy contributes to more efficient vehicle maintenance practices.

### **H<sub>3</sub>. A well-constructed fleet management policy has a positive influence on vehicle disposal processes**

The correlation coefficient between fleet management policy and vehicle disposal is significant ( $r=0.300$ ,  $p < 0.01$ ). The findings indicated a positive association between fleet management policy and vehicle disposal. In the context of local authorities' efficient fleet disposal fosters cost effective replacement and disposal methods

that result in efficient disposal process. Munuhwa et al. (2020) supports the findings by stating that an efficient fleet management policy contributes to improved vehicle disposal actions.

#### **H4. A well-constructed fleet management policy has a positive effect on fuel management**

The correlation coefficient between fleet management policy and fuel management was significant at ( $r = 0.192$ ,  $p < 0.01$ ). This indicates a positive relationship between fleet management policy and fuel management. Effective fleet management policies have a significant influence on fuel management through promoting accountability towards usage of fuel, which eventually lowers costs and improved fuel efficiency in local authorities. The findings are in alignment with a study by Munahar et al. (2023) which established that establishing clear policy guidelines for fuel management enables efficient fuel management.

### **Conclusion and implications**

This section presents implications and limitations of the study.

#### **Implication to theory**

The implications to theory were that the study fills the knowledge gap by specifically focusing on the context of local authorities in Zimbabwe and provides valuable insights into how fleet management policies can enhance operational efficiency and address the challenges faced in fleet management. The theoretical implications of the study were assessed by researchers using the institutional, agency, and RBV theories. Institutional theory suggests that organizations adopt certain practices and policies based on external pressures and institutional norms. In the case of local authorities in Zimbabwe, the weak fleet management policy may be influenced by institutional factors, such as lack of enforcement of regulations and limited access to resources. Scholars have argued that the institutional theory can be applied to understand the impact of these external factors on fleet management policies (Sakno et al., 2021).

From a RBV theory standpoint, vehicles are critical resources within local governments, and effective policies can enhance fleet management. The study findings fill the theoretical gap by highlighting the importance of incorporating fleet management policies grounded by the resource-based theory to enhance operational efficiency, maintenance, and overall fleet management practices within local authorities in Zimbabwe. The theory underscores the importance of organizations efficiently utilizing their resources to attain competitive advantage (Uyanik, 2023). Therefore, the study findings revealed the necessity for local authorities to adequately address the shortcomings of fleet management policies, maximizing resource allocation and utilization, thereby supporting effective fleet management.

#### **Implication to local authorities**

The findings suggest that there were substantial shortcomings pertaining to the internal fleet management policy within local authorities, particularly in areas such as vehicle acquisition, maintenance, disposal and, fuel management. Studies by Eftekhar and Wassenhove (2016), Redmer (2020), Zhang et al. (2021), Kachilala and Dumba (2022), and Woody et al. (2024) have highlighted the detrimental effects of poor fleet management policy on the operations of organizations, emphasizing the importance of clear guidelines, compliance with regulations, and efficient practices in fleet management. Local authorities in Zimbabwe can address these fleet management policies weaknesses through the implementation of standardized vehicle acquisition processes, proactive maintenance practices, proper disposal, and effective fuel management techniques. These practical strategies might help local authorities to optimize fleet size that is capable of sustaining operational needs, reducing breakdowns and costly repairs, properly dispose of obsolete vehicles, and enhance fuel efficiency. In addition, continuous monitoring and assessment of these standards will result in continuous enhancement of operational efficiency, cost-effectiveness, and service delivery.

#### **Limitations**



The limitations of this study are that it focused on local authorities in Zimbabwe, which limits the generalizability of the findings to other sectors. Furthermore, this study did not explore other potential factors that may influence fleet management effectiveness, such as leadership and organizational culture. The study relied on primary data gathered from respondents over a short timeframe, which might have led to bias. Despite these limitations, this study overcomes the limitations of utilizing a cross sectional design, and collected data from a large sample size to ensure a comprehensive understanding of fleet management in local authorities. Therefore, these limitations present opportunities for future studies of this nature to be conducted in various contexts in Zimbabwe and other countries to generalize the findings.

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