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The Efficacy of Fleet Management Strategies on Service Delivery of Selected State-Owned Enterprises in Zimbabwe

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Abstract
The study evaluated the effect of fleet management strategies on performance of selected state-owned enterprises in Zimbabwe. Positivism research Philosophy guided this study rooted in a case study design. Reyes (2005) Logistics Flow Game Theory was also used as an underpinning theory in this study. The study focused on Zimstats Harare, Zimbabwe. The target population was 220 employees at Zimstat head office in Harare, Zimbabwe. This figure was obtained from their employee database records. The respondents of this study are procurement managers, transport managers and transport officers at Zimstat. The sample size of the study was 140 employees based on Krejcie and Morgan (1970) table of determining sample size. Simple random sampling technique was mainly used. Questionnaires were research instruments used to collect data in the research study. Cronbach's alpha (α) was used to determine reliability after data collection. Data was analysed using descriptive statistics and presented in Tables and Figures. Multiple regression analysis was performed to strengthen and give the direction of the hypothesized relationships. Based on the results, it was found that ZimStats organization was practicing fleet management strategies which include vehicle maintenance, vehicle tracking and diagnostic, fuel management and driver management. The results attained showed that vehicle maintenance, vehicle tracking and diagnostic and driver management positively influence performance of an organization whilst fuel management was found not to significantly influence performance. The study concluded that there are a lot of benefits that come along as a result of a firm employing proper use of fleet management strategies. Such benefits established in the study include, improvement in service levels through network communication and relationship networks, reducing aggregate costs and minimizing the business risk and enabling companies to gain competitive advantage, operation efficiency, reduction in waster and cost-efficient outflow of resources. Finally, the government of Zimbabwe is recommended to draft a clear policy on the management of all fleet in state-owned enterprises and enforce the policy so much that there is standardization among all state-owned enterprises. It is suggested that forthcoming research be conducted amongst all state-owned enterprises in Zimbabwe and other developing countries in order to make meaningful generalizations.

Key Words: Fleet Management, Strategies, State-Owned Enterprises, Performance, Zimbabwe

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Introduction and Background of the Study

Transportation is at the core of logistics since it signifies the physical movement of supplies from one point to another in a supply chain. At a global level, the transport and logistics sector play a key role in the global economy and is a noteworthy contributor at national level. At a global perspective in Europe fleet management market size is expected to reach $34, 629 million by the year 2022, from $7, 755 million in the year 2015, growing at a GAGR of 24.5% from the year 2016 to 2020 (Wittmann, Neuner, & Lienkamp, 2020). According to Wittmann et al. (2021) fleet management has enabled enterprises to track and maintain their vehicles in a cost-effective, quick and accessible way.

Fleet management comprises of vehicle maintenance, vehicle tracking and diagnostics, financing and driver management. In the United States of America [USA], Rojas et al. (2020) highlighted that fleet management has led to many companies that mainly rely on transportation to reduce or entirely remove the risk related with employee costs and processes. With aspects such as real-time fleet tracking under fleet management it further leads to minimization of fuel costs, overhead costs, improved safety and monitoring (Allied market research, 2021). A fleet management system that is efficient necessitates an effective operations management system that executes much of the processes free from error. Some of the actions that are essential under fleet management involves vehicle and driver tracking, asset management, reciprocal communication, driver safety and time management, after sales services and customer relationship management (Kaskatiiski, 2020).

The Transport Geography (2021) claims that the growth of the transportation system occurs in a socio-economic setting while development policies and strategies have a tendency of focussing on physical capital. However, in recent years it has experienced an improved balance through involving human capital matters. Regardless of the absolute importance of physical against human capital, expansion cannot take place without both cooperating since infrastructures cannot stay effective deprived of suitable operations and maintenance. In unison, economic activities cannot occur deprived of an infrastructure base (Rojas et al., 2020). The extremely transactional and service-oriented functions of several transport activities emphasize the multifaceted relationship between its physical and human capital requirements.

Regionally, in South Africa, there is a Trading Unit of the Gauteng Department of Roads and Transport called g-FleeT Management which is a benefactor of vehicle leasing and fleet management services for the public sector in South Africa. Its clientele comprises the National, Gauteng Provincial and local government departments (Mohamed & Jokonya, 2021). The core business of g-FleeT is to provide transportation of vehicles which involves entire fleet management services- finance, replacement, short term rentals, maintenance, repairs, tyres, accident damage, fuel

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management and traffic fines management, registration, licensing and renewals; to all government departments.

The use other wireless technologies and that of fleet management systems in Zimbabwe is still in its childhood stage and other organizations such as Zimbabwe National Statistics Agency [Zimstats] have roped in fleet management so as to minimize costs (Mazikana, 2018). Zimstats is the statistics agency of Zimbabwe whose headquarters is in the Kaguvi Building in Harare. Zimstats tried to make use of fleet management in 2019 in a bid to realize cost saving but then they are still encountering difficulties (Muropa, 2019). In Zimbabwe researches on fleet management lack comprehensive evidence regarding socioeconomic challenges that affect fleet management adoption in organizations (Munuhwa et al., 2020). It is still unclear if benefits that accrue to worldwide governmental institutions also accrue to Zimbabwean organizations due to engagement in fleet management. Moreover, in developing countries there is no standard meaning when it comes to fleet management in governmental organizations (Makurumidze et al., 2020). Even though fleet has emerged as an essential aspect in the business world, very little research has been carried out to back up the growth of fleet management in developing countries like Zimbabwe (Mazikana, 2018). Moreover, it is further noted that organizations participate in fleet management as a way of achieving cost reduction although their activities are not formally documented in electronic media in developing countries such as Zimbabwe (Pedraza-Martinez, Hasija, & Van Wassenhove, 2020). Fleet management initiatives by organizations are largely unknown.

Statement of the Problem

State-owned enterprises have been incurring huge expenses through the way vehicles are managed and this has affected the government of Zimbabwe. The overall transport expenditure on pool vehicles at Zimstat escalated to a peak of RTGS$2 million for the years 2019 up to date (Herald, 31 March 2021). The problems at government institutions emanates from high cost and low profits which are attained by these organizations (Nyaungwa, 2015). Zimstat is finding itself entangled in the brutal circle of stagnation and liability due to consistently sticking to the out-dated business practices while getting pseudo comfort in the speculation of a rapid economic revival that suits their existing business models and practices. Despite studies carried out by Mukwekwe (2018) and Sai (2015) on fleet, there is still scarcity in terms of literature on how fleet management can improve the performance of organizations especially state-owned enterprises. As such this current study sought to address this through conducting a study on the impact of fleet management on performance of state-owned enterprises looking at a case of Zimstat organization.

Research Objectives

1. To examine the impact of fleet management strategies on service delivery of selected state-owned enterprises in Zimbabwe.

Research Hypotheses

H_1: Vehicle Maintenance positively influences performance of state-owned enterprises in Zimbabwe.

H_2: Vehicle Tracking positively influences performance of state-owned enterprises in Zimbabwe.

H_3: Fuel Management positively influences performance of state-owned enterprises in Zimbabwe.

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Methodology

Positivism research Philosophy guided this study rooted in a case study design. Reyes (2005) Logistics Flow Game Theory was also used as an underpinning theory in this study. The study focused on Zimstats Harare, Zimbabwe. The target population was 220 employees at Zimstat head office in Harare, Zimbabwe. This figure was obtained from their employee database records. The respondents of this study are procurement managers, transport managers and transport officers at Zimstat. The sample size of the study was 140 employees based on Krejcie and Morgan (1970) Table of determining sample size. Simple random sampling technique was mainly used. Questionnaires were research instruments used to collect data in the research study. Cronbach's alpha (α) was used to determine reliability after data collection. Data was analysed using descriptive statistics and presented in Tables and Figures. Multiple regression analysis was performed to strengthen and give the direction of the hypothesized relationships.

Theoretical Framework

Reyes (2005), presented a logistics theory known as the Logistics Flow Game Theory that propagated from Kalai and Zemel place to another within a network. This theory outlines a flow as a way to send objects from one position to another. These flowing entities are known as flow units, regardless of their nature. Thus, the objects are supposed to follow a node that begins at transportation theories which inherently presents an availability in the transportation system. The user is directly affected by costs, travel time, reliability, safety, is based on productivity impact competition, trade (Muggy, & Stamm, 2014). This theory pronounces the best method to send objects from one position to another. The objects are supposed to follow a node that begins at a source and ends at a sink.

The source nodes are entrance nodes that offer supply and the sink node has demand. The co-operation of stakeholders and players involved in sending the items from one position to another is called the flow game. Therefore, each option has its own maximum flow for any coalition (Timm & Lorig, 2015). They further indicated that this theory associates a coalitional game to every problem which then condenses the savings realized by each alternative coalition. This is then used to analyse different game theory topics like solution concepts and steadiness. It also helps to determine savings or extra benefits of cooperation amongst the involved agents. It solves logistics related problems like routing, storage, inventory, distribution and frequency from a non-cooperative or cooperative perspective.

Aparicio, Llorca and Sancho (2009) further add that Game Theory analyses cooperation and conflict circumstances which involve more than one rational and intelligent agents. The theory has two main approaches, which consists of the cooperative and non-cooperative games. The main peculiar consideration of these approaches is the possibility of reaching binding agreements. A cooperative situation is possible when there are binding agreements. In such an environment the concept of cooperation becomes vital in achieving cooperation of all agents.

Review of Related Literature

1. The impact of fleet management strategies on service delivery of selected state owned enterprises in Zimbabwe

According to Besiou et al., (2012) a strategy that ensures sustainable fleet management is one that seeks to lessen environmental effect through the integration of cleaner vehicles and fuels, fuel efficient operation and driving. Thus, fuel management is also one of the crucial aspects of fleet

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management. It is important to note that while fleet management and road safety are paramount to service delivery, fuel is a resource that needs to be well managed. Notwithstanding the fact that fuel managing differs across the association it nevertheless presents a key cost problem in most setting (Gitahi & Ogollah, 2014). The implementation of formal fuel management programme is an effective strategy of making lasting reductions in the cost of fuel for fleet operation (Aflabo et al., 2020). As a way to monitor vehicle fuel, organizations put fuel control and management designs in place to monitor, save and optimize fuel related costs.

Information systems that are used for management and routing services in the field positively influence on routine increment and performance of fleet (Martinez et al., 2011). There is however basically insufficient data-base as well as funds to buy such a system. As indicated by Huang, Smilowitz, and Balcik (2012), logisticians make routing and delivery scheduling decisions based on the perceptions and involvements they have about particular information. An advancement in communication technology in the business world, has made most organizations to engage in innovative forms of planning through the utilization of electronic data interchange (EDI) as well as radio frequency identification (RFID) and satellite navigation (Waters, 2009) to assemble the accurate information about vehicle movement which result in advanced operational efficiency.

Vehicle repair and maintenance is one of the very significant aspects to any fleet management company. This concept considers concerns of changing oil, routine servicing as well as managing spare parts (Ally, 2020). Studies that have been done in the past showed that driver training, vehicle maintenance and vehicle design are range of relative low-cost measures that can save 10% or more fuel for fleet operation (Baas et al., 2005; Baas and Latto 2005). However, Bell (2013) stated that properly changing of oil can also support in escalation of the lifespan of the vehicle engine by using fuel additives to guarantee that the engine injectors are constantly clean.

A study by Gitahi, and Ogollah, (2014) assessed the influence of fleet management practices on service delivery to refugees in United Nations High Commissioner for Refugees Kenya Programme. The study sought to establish the influence of fleet management practices on service delivery to refugees in UNHCR. Study findings revealed that vehicles repair and maintenance influence service delivery to refugees in UNHCR Kenya programme to a very great extent. It was further established that fuel management greatly influence service delivery to refugees in UNHCR Kenya programme. The research concluded that fuel consumption rate tracking, fuel sourcing, fuel monitoring, allocating fuel day-to-day and monitoring usage rates aspects of fuel management influence service delivery to refugees at UNHCR Kenya programme.

Zhou (2013), did a study on Logistics Value Chain Analysis and Competitiveness Construction for Express Enterprises in China. The main purpose of the study was to analyze the value of the activities in the development of express delivery, the model of logistics value chain analysis (LVCA) of express enterprises constructed. The researcher stated that express enterprises provide the logistics services, and there are different levels of value-added activities in the process of express delivery, which includes recipient, branch transportation, transit, trunk transportation. The research also discussed the logistics value chain models which consisted of Logistics Competitiveness Model of Express Delivery. The study findings showed that logistics competitiveness of express enterprises comes from the process of pursuit the logistics value. It further postulated that the model of logistics competitiveness for express enterprises is constructed based on the basic activities, including strategic positioning, network optimization, value-added services and performance measures.

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The study concluded that the express enterprises provide high level services to meet customers' demands, develop the customer markets constantly, and then get the chance of growing and being stronger.

Most of the studies showed that there exists a strong positive relationship between transports, logistics and performance of different institutions. However, different variables were used to measure performance and fleet management systems. The question then arises on which fleet management systems and performance-measuring variables are applicable at state owned institutions like ZimStats giving rise to one of the objectives of this research which is to determine fleet management systems currently used in Zimstat.

Results and Discussion

Response Rate Analysis

There was a total number of distributed questionnaires of 140, from which only 135 were correctly completed and usable explaining to a 93.3% response rate. Likewise, Saunders et al. (2007) submit that in a study, 50% response rate is acceptable, whilst 60% is viewed as good and any that is 70% or above is regarded as highly acceptable. Therefore, the study's 93% response rate was highly acceptable and findings from such a threshold were not just dependable but shaped a comprehensive base for drawing conclusions.

Exploratory Factor Analysis

EFA was executed with the intention of understanding the structure of a set of variables and also determine which items actually measured the underlying constructs in the questionnaire.

Sampling Adequacy

Prior to carrying out an EFA the data as assessed for its sustainability for factor analysis by use of Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity using SPSS Version 22. The findings achieved were shown in Table 4.2 (KMO = 0.860, Approx Chi-square = 11826.491, Degrees of freedom [DF] = 1583; $p < 0.001$) signified that the sample was suitable for exploratory factor analysis to be carried out (Field, 2009). More so, EFA was also carried out with the aim of filtering and reducing the large number of interrelated variables to a more significant and practicable number prior to using them for further analyses. Zikmund and Babin (2016) described factor rotation as a mathematical method of simplifying factor results for better interpretation. Varimax method was used in order to simplify the analysis of factors. The method was selected due to the fact that it tries to make the most of the distribution of loadings within factors which result in clusters of factors that can be easily interpreted (Field, 2009).

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Table 1. 1 KMO and Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.860
Bartlett's Test of Sphericity	Approx. Chi-Square	11826.491
	Df	1583
	Sig.	.000

Source: Survey (2021)

Table 1.2 shows the factor loadings for each factor. Factor loadings that were fewer than 0.4 were suppressed as recommended by Steven that only factor loadings above 0.4 ought to be interpreted so as to make interpretation much easier (Field, 2005). The following items FM1 and FMS6 were excluded due to poor factor loadings (Field, 2009).Therefore results in Table 1.2 show that all factor loadings were above 0.6 which is the minimum cut-off point for factor loadings (Bagozzi & Yi,1988; Lewis-Beck, 1994).

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Table 1.2 Constructs, Items, Factor Loadings

Construct	Items	Factor Loadings
Fleet Management	FM2	0.756
	FM3	0.903
	FM4	0.870
	FM5	0.822
	FM6	0.754
Benefits	BFM1	0.757
	BFM2	0.751
	BFM3	0.869
	BFM4	0.783
Fleet Management System	FMS1	0.816
	FMS2	0.803
	FMS3	0.964
	FMS4	0.821
	FMS5	0.716
Performance	PERF1	0.891
	PERF2	0.818
	PERF3	0.724
	PERF4	0.768
	PERF5	0.806

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 4 iterations.
Based on Eigenvalues > 1.00
Total variance explained = 87.072%
Loadings of less than 0.4 were suppressed

Source: Survey (2021)

As shown in Table 1.2, rotation converged in 4 iterations and the total variance explained by the data was 74.07% which is above the acceptable limit of 60% (Atalay et al., 2013). As expected, the results presented in Table 1.2 show that the rotated component matrix solution gave 4 components, namely FM, FMS, BFM, and PERF.

Reliability Analysis

Cronbach's Alpha (α) was used to determine the internal consistency of constructs. Table 1.3 presents the Cronbach's (α) reliabilities of the study's constructs.

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Table 1. 3 Construct, Number of items and Cronbach's (α)

Construct	Number of Items	Cronbach's alpha (α)
Fleet Management	4	0.949
Benefits of Fleet Management usage	4	0.848
Fleet Management Systems	4	0.910
Performance	4	0.885

Source:Survey (2021)

As shown in Table 1.3, all constructs measured exhibited reliabilities above the cut-off point of 0.6 (Bagozzi and Yi, 1988). Cronbach's (α) of all constructs were above the benchmark scale of 0.6 (Gunday et al., 2011). This implied that the data collected for the study was reliable.

Descriptive Statistics

This section presents results on descriptive statistics which includes arithmetic means (M), and standard deviations (SD) on all the six factors causing business failure, namely fleet management, fleet management systems, benefits of fleet management systems and performance. The SD speak of the extent to which responses are consistent in other words the distribution of the responses around the mean. There is an improved understanding of the data if mean and SD are used together. The scale used in the study had the following response points: 1 strongly disagree, 2 disagree, 3 Neutral, 4 agree, 5 strongly agree.

Descriptive Statistics for Fleet Management use

Table 1.4 presents the mean scores and the standard deviations of items that were employed to determine the usage of fleet management in the organization.

Table 1. 4 Descriptive Statistics for Fleet Management usage

Item Code	Item Description	Mean score	Mean response	SD
FM2	The company practices vehicle tracking and diagnostic on its fleet.	4.24	Agree	0.898
FM3	The company has proper systematic vehicle maintenance.	4.06	Agree	0.830
FM4	There is effective and efficient driver management in the organization.	4.32	Agree	0.913
FM5	The organization observes effective health and safety management with regards to fleet.	4.85	Strongly Agree	0.995
FM6	The organization has a clear fuel management on all its fleet.	4.14	Agree	0.895
	Overall	4.32	Agree	0.906

Source: Survey (2021)

Results in Table 4.5 show that the mean responses ranged between 4.06, SD = 0.830 (item FM3) and 4.85, SD = 0.995 (item FM5). The mean total was calculated and it averaged (overall mean =

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4.325; SD = 0.906) agree out of a possible score of 5 (strongly agree). This suggests that the respondents agreed to the various factors depicting fleet management usage in the organization.

Descriptive Statistics for Benefits of Fleet Management system

Table 1.5 presents the mean scores and the standard deviations of items that were employed to determine the benefits of Fleet Management Systems on an organization.

Table 1. 5 Descriptive Statistics for Benefits of Fleet Management system Usage

Item Code	Item Description	Mean score	Mean response	SD
BFMS1	The organization's efficient administration of outflow of information enhances the organization's processes both within and without.	3.09	Neither Agree nor Disagree	0.765
BFMS2	Mechanizations of tasks immensely promote accuracy, momentum of operations and reduction of scraps.	3.88	Agree	0.690
BFMS3	Transport administration and distribution practices permits faster and cost-efficient outflow of resource thus improving operational efficiency.	4.20	Agree	0.608
BFMS4	The organization's fuel management greatly influence its service delivery to customers.	3.82	Agree	0.714
	Overall	3.74	Agree	0.694

Source: Survey (2021)

Results in Table 1.5 indicate that the mean responses ranged between 3.09, SD = 0.765 (item BFMS1) and 4.20, SD = 0.608 (item BFMS3). The mean total was computed and it averaged (overall mean = 3.74; SD = 0.694) agree out of a possible score of 5 (strongly agree). This implies that respondents surveyed concurred to the listed benefits that are brought about by fleet management system to the organization.

Descriptive Statistics for Performance

Respondents were requested to rate the extent to which they agreed or disagreed to the statements used the effect of fleet management on performance. The mean scores and standard deviations of every item are shown in Table 1.6.

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Table 1. 6: Descriptive Statistics for Performance

Item Code	Item Description	Mean score	Mean response	SD
PERF1	There has been an increase in customer satisfaction due to fleet management	3.87	Agree	0.698
PERF2	The organization has managed to achieve waste minimization by means of fleet management.	3.69	Agree	0.694
PERF3	The organization has experienced efficacy cost effectiveness due to fleet management.	4.78	Strongly Agree	0.869
PERF4	There are shorter lead times (time taken between order placement and actual delivery	4.19	Agree	0.968
PERF5	There has been an increase in market share of the organization	2.87	Neither Agree nor Disagree	0.578
	Overall	3.88	Agree	0.761

Source: Survey (2021)

Results presented in Table 1.6 highlight that the mean responses ranged between 2. 87, SD = 0.578 (item PERF5) and 4.78, SD = 0.869 (item PERF3). The mean score was computed and it averaged (overall mean = 3.88; SD = 0.761) agree out of a possible score of 5 (strongly agree). This suggests that respondents agreed fleet management had increased performance of the organization.

Correlation Analysis

In order to test the association between fleet management systems and performance of ZimStats organization correlation analysis was performed. Table 1.7 depicts the findings of the correlation analysis carried out.

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Table 1. 7 Correlations between fleet management systems and performance

		Performance	Vehicle maintenance,	Vehicle Tracking and Diagnostic	Fuel Management	Driver Management
Performance		1				
Vehicle maintenance,	Pearson Correlation	.218	1	.338**	.169*	
	Sig. (2-tailed)	.016		.000	.035	
Vehicle Tracking and Diagnostic	Pearson Correlation	.561**	.338**	1	.607**	
	Sig. (2-tailed)	.000	.000		.000	
Fuel Management	Pearson Correlation	-.158**	.169*	.607**	1	
	Sig. (2-tailed)	.152	.035	.000		
Driver Management	Pearson Correlation	.645**	.169*	.570**	.512	1
	Sig. (2-tailed)	.000	.035	.000	0.04	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The results in Table 1.7 indicate that there is a positive, weak and statistically significant relationship between vehicle maintenance, and Performance among state owned enterprises. The results are depicted by [r=0.218; p<0.05; p=0.016]. The findings in Table 1.7 also indicate that there is a positive, strong and statistically significant relationship between vehicle tracking and diagnostic and performance among state owned enterprises. The results are depicted by [r=0.561; p<0.01; p=0.000]. The results in Table 1.7 showed that there is a negative, strong and statistically insignificant association between fuel management, and Performance among state owned enterprises. The results are depicted by [r=0.578; p>0.05; p=0.152]. The results revealed that there is a positive, strong and statistically significant association between driver management and performance among state-owned enterprises. The results are depicted by [r=0.645; p<0.01; p=0.00]. After determining the strength of the relationships between the four fleet management factors and performance of state-owned enterprises, the study continued on identifying the predictive relationship between these two variables through Regression analysis. Results of the regression analysis are explained in the next section

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Regression Analysis

Upon testing research hypotheses of the study regression analysis was used since it is effective in establishing relationship between variables. As such regression analysis was performed to test the relationship between two sets of constructs; namely, fleet management system and performance. The four factors of fleet management system were used as independent variables and performance measures were used as the dependent variable.

Test of Hypotheses

Research hypotheses are as follows;

H_1: Vehicle Maintenance positively influence performance of state-owned enterprises.

H_2: Vehicle Tracking and Diagnostic positively influence performance of state-owned enterprises

H_3: Fuel Management positively influence performance of state-owned enterprises

Table 1. 8 Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.898[a]	.624	.745	1.34569

Predictors: (Constant), Vehicle maintenance, Fuel Management, Fuel Management, Driver Management.

From the findings in the Table 1.8, it indicates that the coefficient of regression for the relationship between four factors of fleet management systems and performance was 0.898 whilst the matching R-square statistic was 0.624. Such a value of 0.624 for R-square statistic indicates that the model is fit for the performing of regression analysis. As such, the results imply that vehicle maintenance, vehicle tracking and diagnostic, fuel management and driver management explain 62% of the variation in performance among state owned enterprises. The residual 38% is explained by other factors which are not part of the study.

ANOVA

Table 1. 9 Regression Model Validity

Model	Sum of Squares	Df	Mean Square	F	Sig
1 Regression	78.885	4	25.544	27.146	0.000[b]
Residual	284.825	212	.845		
Total	364.458	216			

a. Dependent Variable: Performance

b. Predictors: (Constant), vehicle maintenance, vehicle tracking and diagnostic, fuel management and driver management.

Findings in Table 1.9 indicate that data fit the model very well, i.e. the model is statistically significant (F ratio = 27.146, significant at p <0.001). It is given then that the independent variables were statistically significant in predicting the dependent variable, F=27.146, p < .05 p=0.000). Therefore, the regression model was a good fit for analysing the effect of fleet management systems on performance of state-owned enterprises.

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Table 1. 10 Regression analysis results

Model	Unstandardized coefficients		Standardized coefficients	t	Sig	Collinearity Statistics	
	B	St. Error	Beta (β)			tolerance	VIF
(Constant)	3.241	.439		6.124	.000		
Vehicle maintenance	.163	0.75	.106	2.104	0.02	0.935	1.023
Vehicle Tracking and diagnostic	.140	.083	.101	2.226	.003	0.932	1.015
Fuel Management	.163	0.75	-.464	-8.777	0.62	0.929	1.021
Driver Management	.123	0.87	.105	2.114	0.02	0.925	1.032

a. Predictors: (Constant), Vehicle Management, Vehicle tracking and diagnostic, Fuel Management, Driver management.
b. Dependent Variable: Performance
b. Dependent Variable: Performance

As highlighted in Table 1.10, performance is the dependent variable and Vehicle Maintenance, Vehicle tracking and diagnostic, fuel management, driver management are predictors (independent variables). More so, the tolerance and valence inflation factor (VIF) statistics (tolerance ranges between 0.925 and 0.935, whereas VIF ranges between 1.015 and 1.074), this signify that the model is free from collinearity problems. This follows the recommendations of Saunders et al. (2009) that a very small tolerance value (0.10 or below) or a large VIF value (10 or above) indicates high collinearity.

Table 1.10 shows that vehicle maintenance significantly predicts performance, this means that Performance of an organization is dependent on vehicle management ($\beta = 0.106$, $t = 2.104$, significant at $p = 0.043$). A positive standardised beta coefficient ($\beta = 0.106$) illustrates that a significant relationship exists between vehicle maintenance and performance among state-owned enterprises. Hence **H1 supported**.

Findings from Table 1.10 indicate that vehicle tracking and diagnostic positively predicts performance of ZimStats. The findings thus, imply that vehicle tracking and diagnostic positively predicts performance of ZimStats organization. The results imply that among state-owned enterprises ($\beta = 0.101$, $t = 2.226$, significant at $p = 0.03$). A significant standardised beta coefficient ($\beta = 0.101$) indicates that, vehicle tracking and diagnostic has a significant effect on performance of ZimStats. As such, **H2 is supported**.

Moving on, findings in Table 1.10 highlights that fuel management predicts performance of ZimStats ($\beta = -0.464$, $t = -8.777$, significant at $p < 0.001$). The findings thus, imply there is a converse relationship between fuel management and performance such that fuel management conversely predicts performance of ZimStats organization. A negative standardised beta coefficient ($\beta = -0.464$) denotes that vehicle tracking and diagnostic have adverse on performance. **H3 is thus, not supported**.

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Conclusions and Recommendations

The study concluded that some of the fleet management systems currently in use at ZimStats were vehicle maintenance, vehicle tracking and diagnostic, fuel management and driver management. The study concluded that there are a lot of benefits that come along as a result of a firm employing proper use of fleet management systems. Such benefits established in the study include, improvement in service levels through network communication and relationship networks, reducing aggregate costs and minimizing the business risk and enabling companies to gain competitive advantage, operation efficiency, reduction in waster and cost-efficient outflow of resources. Transport administration and distribution practices permits faster and cost-efficient outflow of resource thus improving operational efficiency. The study concluded that indeed fleet management systems affect control in government institutions. For government institutions to improve the fleet efficiency there must be serious control mechanism on genuine spare parts used during service and maintenance. The organizations should also consider hiring professional fleet manager and maintenance controller to have better fleet efficiency. State-owned enterprises in Zimbabwe are encouraged to adopt a strategic fleet management system approach in order to improve on their performances. This is possible when state-owned enterprises effectively come up with fleet management systems that are strategic in attaining of benefits accrued to fleet management. Strategic fleet management systems involve adoption of a fleet management policy that is effective in all divisions of the organization from the bottom level employees up to the top management so as to boost revenue for the institution as well as the government at large. These state-owned enterprises are also recommended to adopt ICT enabled fleet management systems which have been successful in some of the developed countries if Zimbabwe is also to benefit from fleet management systems. Key control mechanisms also should be put in place with regards to fleet in these state-owned enterprises so as to curb any corruption or abuses of fleet which have become rampant in the country. Finally, the government of Zimbabwe is recommended to draft a clear policy on the management of all fleet in state-owned enterprises and enforce the policy so much that there is standardization among all state-owned enterprises. This will enable the government of Zimbabwe to reap huge benefits which will might include increased GDP.

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