CHALLENGES OF VEHICLE FLEET MANAGEMENT AND CONTROL IN THE UNIVERSITY OF EDUCATION, WINNEBA, GHANA

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ABSTRACT: The main objective of the study was to examine the challenges of fleet management and control in the University of Education, Winneba (Kumasi-Campus). This assessment was done in a bid to analyze how the University is able to derive value for money in the operations of the Transport Section of the institution. The study adopted the quantitative research methodology to assess the problem. That notwithstanding, using the purposive sampling technique a total of 161 respondents were used for the study which comprised 60 and 101 senior and junior members of the University respectively. Administering questionnaires as the main instrument of data collection, the results show that a significant number of the respondents agreed that the procurement of new vehicles for the University should be under the auspices of the Transport Section. Additionally, the respondents accepted that the Transport Section should be in charge of vehicle repairs and maintenance as well as authorize the fuelling of official vehicles of the University. Also, the study revealed that for effective vehicle management official vehicles should be insured and that there should be strict regulation on access to the keys of official vehicles. The Transport Section of the University is challenged by frequent vehicular breakdowns, accidents as well as poor vehicular scheduling. It was thus recommended that the University should compel all staff to comply with the fleet management policies of the University and penalties be appended to staff who go against the policies. Regular training programmes must be organized for staff to ensure they are kept up-to-date with new trends in transport issues.

KEYWORDS: Control of Vehicle Fleet, Effective Vehicle Management Fleet Management, University

INTRODUCTION

Fleet management is a function which allows companies to rely on transportation in their business to remove or minimize the risks associated with vehicle investment, improving efficiency, productivity and reducing their overall transportation costs, providing 100% compliance with government legislation (Duty of Care) and many, many more (Choudhary, 2013). Ratcliffe (1987) talks about five main fleet management activities which are: routing and scheduling, fuel management, vehicle acquisition, vehicle maintenance, driver briefing and debriefing. These activities are supervised by the fleet managers and primarily, a policy is formulated so as to serve as a guide for these activities. These activities help in achieving effective and efficient fleet (vehicle) management. Better vehicle utilization lowers operating cost though better planning. Implementing decent fleet management has proven to reduce fleet size and operating costs, while increasing speed of vehicle delivery to national offices (Martinez, Stapleton, and Van Wassenhove, 2011). However the current century has brought with it a new workplace, one in which every employee must adapt to a rapidly changing society with constantly shifting demands and opportunities. This has called for organizations to adopt a strategic method in managing some aspects of work. This is to say, organizations
are able to achieve their overall goals and meet the changing demands of business environment if they are able to manage effectively the various sections of the organizations.

The fleet (vehicle) section of an organization is therefore one of the areas which contributes greatly to the achievement of organizational goal. This is because the fleet section is responsible for the movement of both people and goods of the organization. This helps to speed up business operations and processes. In other words, the pressure to deliver faster and cheaper has made vehicle utilization an important aspect of fleet management (Jonsson, 2008; Waters, 2009). The pivotal role played by the fleet section has prompted organizations to embrace fleet management. Fleet (vehicle) management can include a range of fleet management functions such as vehicle financing, vehicle maintenance, vehicle telemetric (tracking and diagnostics), driver management, fuel management, and health and safety management (Choudhary, 2013). Martinez, Stapleton and van Wassenhove (2011, p.404) define field vehicle fleet management as: “decision-making on repositioning and load assignment for groups of transportation means operating in job locations remote from regular facilities, offices, etc. to optimize performance”.

The University of Education, Winneba in Ghana was established in September 1992 first, as University College under PNDC Law 322. It was then called University College of Education of Winneba. On 14th May 2004, the University of Education Act, 2004 (Act 672), was enacted to upgrade the status of the University College of Education of Winneba to the status of a full University. Currently the University has four satellite campuses, namely: Winneba Campus, Kumasi Campus, Mampong-Ashanti Campus and Ajumako Campus. Since the inception of the University with the mandate of teaching, research and community service, no study has been undertaken in the area in fleet management. There had not been empirical study on the challenges of vehicle fleet management and control in the University, considering the wider use of vehicles and movements involved with staff, materials and equipment. This is without prejudice to the fact that the campus-wide nature requires interplay and use of many vehicles and how it affects the general management of resources. It is against this backdrop that this study is necessary and the outcome could serve as a guide to policy formulation in the University and contribute to knowledge in challenges of vehicle fleet management and control.

**Statement of Problem**

The establishment of effective administration of fleet management programme can have a positive impact on the cost effectiveness and efficiency of the location in fleet operation. It is believed that the role played by fleet management in the management and delivery of services in the University of Education, Winneba is very important and requires effective and efficient management of fleet for optimum cost utilization in the areas of vehicles, fuel, spare parts, and other vehicle consumables. In recent times, it appears the University has been experiencing some challenges in its vehicle management and administration. The policies and regulations on vehicle use, management and control for effective and efficient running of activities with the view of ensuring value for money has become a challenge. Recent report indicates increasing cost in vehicle running and maintenance. This notwithstanding, there has been no empirical study regarding the challenges of vehicle fleet management and control in the University. This study intends to assess the extent to which these policies and regulations are enforced to ensure effective vehicle utilization in the University. In other words, the current study intends to assess the challenges of fleet management and control in
University. Considering the above resource problem, the following research questions formulated would be answered in the study.

- What are the existing vehicle management policies (if any) in the University of Education, Winneba?
- What are the challenges in fleet management in the University and how could they be addressed?

**REVIEW OF RELATED LITERATURE**

**Challenges of Vehicle Fleet Management**

Lockhead (1986) suggests that the failure of the road haulage industry is attributed to the following challenges: poor road infrastructure, breakdowns, accidents, routing and scheduling, fuel shortage, and criminal activities. Indeed, according to Lockhead (1986), the following signals are indicators of poor routing and scheduling; vehicles running long distances when only partially loaded, vehicles covering excessive distances to reach their destination, large vehicles being used for running errands or making small-item deliveries which could have been accomplished more effectively and economically by other means. The above stated practices display inefficient fleet management and cost inefficiency that in turn builds on the failure of most automobile firms. This is one of the reasons why an appointed fleet manager has to possess good decision-making skills to prevent such events from happening.

Ratcliffe (1987) states that since the oil price shocks in the 1970s, considerably more attention has been paid to energy conservation than before. There are signs that this attention is slackening due to the seeming abundance of energy. As the world economy pulls out of recession and energy requirements increase rapidly, the world could easily go back to the situation it faced in 1979. Therefore, fuel being a non-renewable resource is affected by economic recession and thus also affects the transport sector, posing as a hindrance to the effective management of the road haulage industry. Lockhead (1986) puts forward that the greatest road haulage drawback is that of breakdowns. He emphasizes that an adverse impact on the economy’s reputation as customer response is delayed. Breakdowns are also an indicator of poor maintenance of vehicles and thus more time is spent idle than on a trip.

**Control on Fleet Management**

The road safety organisation in Ghana has provided guidelines through its National Road Safety Strategy III (2011-2020) to improve road and fleet safety in the country. According to the strategy, the National Road Safety Commission (NRSC) has developed strategic framework aimed at halting the increasing trends of fatalities and injuries by 2015 and reducing same by 50% by the year 2020.

Recruiting and selecting staff with the correct attitudinal and behavioural characteristics is vital to every organisation. Recruitment is the process of generating a pool of capable people to apply to an organisation for employment, and selection is the process by which managers and others use specific instruments to choose from a pool of applicants, the person(s) most likely to succeed in the job(s), given management goals and legal requirements (Bratton and
An organization’s ability to select competent employees will determine how successful the organization will become (Tandu, Abeki and Nnaa, 2008). Selection tools must be utilized in the selection process to acquire the right employees needed for a job.

In a large survey of company car drivers in Great Britain, Lynne and Lockwood (1998) found that 11% of the drivers had taken a course of car driving training since first passing their driving test. Drivers who had received such training had an accident rate that was 8% lower than those who had not, though the difference was not statistically significant. However, Lynne and Lockwood (1998) indicate that it is possible that the selection of drivers for training may have been non-random. Drivers may have been selected for training because they had a poor accident record or, conversely, drivers who were more safety conscious may have volunteered for training.

Employee’s performance appraisal is a tool for ensuring that an employee’s performance is contributing to the achievement of business goals. Performance appraisal creates an opportunity for superiors (managers) to help employees to understand how their personal objectives link to the overall business strategy (Williams, 2002). Reward refers to all of the monetary, non-monetary and psychological payments that an organisation provides for its employees in exchange for the work they perform (Bratton and Gold, 2007). Theoretically, the most effective incentive programmes (Hagenzieker, 1988; Wilde, 1988, both cited in Janssen, 1991):

- Provide an incentive that is proportional to the actual reduction in accident rates achieved,
- Provide incentives that are based on group rather than individual contingency,
- Provide a large incentive to a small number of eligible drivers selected on random basis, rather than a small incentive to all eligible drivers.

Employee relation is concerned with the relationships between the policies and practices of the organisation and its staff, and the behaviour of work groups (Mullins, 2005). Organizations are able to achieve success when they involve their employees in the activities of the organisation. University vehicles are a property of University Council. In the public sector, vehicles are acquired through: direct purchase by funds from Government or internally/locally generated funds, donations, and projects. Apart from private universities not receiving funds from the government for the procurement of vehicles, private universities also acquire vehicles through the various means used by the public University.

In some institutions, all pool vehicles and dedicated vehicles are procured by the Fleet Management Office. The Fleet Management Office provide information and advice as necessary in the preparation of business cases to justify the acquisition of dedicated vehicles by departments (Massey University Policy Guide, 2008) Properly prepared purchase orders are processed through the Purchasing Office. New vehicles are received and processed by Fleet Management Services. Concerning vehicle maintenance, University vehicle repairs are controlled, monitored and overseen by the Director of Estates and Works Department, assisted by the Transport Officer. Before the vehicle is serviced or repaired, the end-users seek authority from the office of the Director of Estates and Works Department. The Estates Director, through the Transport Officer inspects each vehicle due for service/repair to
establish the need. To establish this, the date of last service/repair and mileage is checked (ULVFMP, 2011). In some Universities, fuel is allocated through Fuel Advantage Cards or other system approved by University Council from time to time (Makerere University Transport Management Policy Guidelines [MUTMPG], 2011). Universities may also have an emergency fuel tank for critical services. Other system of the procurement can be used in areas where fuel advantage cards are not used, which is the case for most of the pool vehicles – i.e., vehicles not attached to a particular University officer or project.

University Vehicle Registration books are under the custody of the Director of Estates and Works Department to ensure proper monitoring and accountability for the usage of all University vehicles. Drivers use movement Logbooks for every journey made. The Transport Officer and/or the vested supervisory control office determines the following criteria are met before releasing a University vehicle to an employee or authorizing an employee to use a private or personal vehicle on official University or State business:

- The person requesting vehicle use is, in fact, a University employee in active service.
- Written approval of the use has been given by an individual authorized by the Transport Officer to grant such approval.
- The person has satisfactorily completed a University approved defensive driving course and maintains a good driving record.
- The person has a valid driver’s license in his/her possession. The driver’s licence is of the correct class for the type of vehicle he/she is driving (MUTMPG, 2011).

It is the responsibility of the University Estates Manager, through the Transport Officer to control and regulate misuse of university vehicles. When misuse is discovered, it is the responsibility of the Transport Officer to determine the cost and send notification to the Vice Chancellor/Chief Financial Officer, the University Secretary and the Head/Director of Human Resources. Recovery of the cost of misuse is not to be considered a disciplinary action. In case of failure to recover the cost of misuse, the Transport Officer will determine the kind of disciplinary action to be taken (MUTMPG, 2011).

**The Concept of Fleet Management**

Management is the co-ordination of resources through the process of planning, organizing, directing and controlling in order to attain set organizational objectives (Gbadegesin and Ojo, 2011). With the diverse nature of management, it has become a universal concept that requires of every manager to perform identical functions (Gbadegesin and Ojo, 2011), in any formal organization whether profit-making or non-profit-making (Robins et. al., 2002). Wyrick and Storhau (2003) believe that fleet management comprises all actions needed to maintain and operate pieces of equipment throughout its life from the beginning stages of equipment acquisition to the final stages of asset disposal. Such areas include: maintenance and repair, inventory control, training, and safety issues. The above definitions throw light on two main objectives of fleet management: Firstly, to guarantee availability and cost-efficiency by effective procurement and sales (Wu, Hartman and Wilson, 2005), maintenance (Haghiand Shafahi, 2002), safety and vehicle drivers management (Mejza, Barnard, Corsi and Keane, 2003), and secondly, to find the optimal vehicle routes through set of loads, subject to capacity (Powell and Carvalho, 1998) and time constraints (Powell, Carvalho, Godfrey and Simao, 1995).
Ratcliffe’s (1987) stated that there are five main fleet management activities. These are: routing and scheduling, fuel management, vehicle acquisition, vehicle maintenance, driver briefing and debriefing. These activities are supervised by the fleet managers and primarily, a policy is formulated so as to serve as a guide for those activities. Ratcliffe’s (1987) assertion affirms to the fact that the University of Education, Winneba has encapsulated all the above fleet management activities into what is known as Vehicle Management Policy. The provisions of this policy provide practical and constructive guidelines for the regulation of vehicle transport operations in the University.

Fleet Management Policy of UEW

A summary of policy document available in the University under study and the national regulation pertaining to the disposal of vehicles which generally apply include the following:

- The University vehicles may be allocated or re-allocated by the Vice Chancellor to a faculty/institute/department/unit/section upon a recommendation of the Transport Management Committee.

- Where a vehicle has been donated to a faculty/ institute/ department/ unit/ section for a specific project, the Vice Chancellor shall upon the recommendation of the Transport Management Committee, have the authority to reallocate the vehicle for official purposes on completion of the project.

- The Dean/Director/ Head of Department concerned shall be responsible for vehicles assigned to his/her Faculty/Institute/Directorate/Department/Unit or Section.

- The Transport Management Committee will from time to time review regulations for the efficient administration of University vehicles.

- The Registrar will from time to time review regulations for the efficient administration of University vehicles.

- To assist in the efficient management and operation of University vehicles, the appropriate log books and requisition form(s) should be utilized in all instances except in an emergency to ensure accountability in vehicle management; and assess driver performance.

The Use and Control of Vehicles

- University vehicles are to be used by the faculty/institute/department/unit/section assigned for official assignments authorized by the head or the deputy officer faculty/institute/department/unit/section only. Pool vehicle(s) use should be authorized by the Registrar or a designated official, acting on his/her behalf.

- All vehicles shall be used for only official business of the University.

- A vehicle allocated to a particular faculty/ institute/ department/ unit/ section shall be under the control of the Dean/Director/Head who shall ensure that the vehicle is in a roadworthy condition.

- Each faculty/ institute/ department/ unit/ section vehicle must be assigned a driver who may be transferred by the Registrar on the recommendation of the Chief
Transport Officer periodically as may be deemed necessary. No unauthorized officer of the University shall be permitted to drive such vehicles without the express approval of the Registrar.

- The Transport Section shall periodically inspect the condition of all vehicles in the faculty/ institute/ department/ unit/ section at the end of every academic year and submit reports on their condition to the Transport Management Committee.

- Subject to the exigencies of the work of a faculty/ institute/ department/ unit/ section, the Chief Transport Officer after consultation with the Dean/Director/Head may authorize the use of the vehicle of a faculty/ institute/ department/ unit/ section for an official business of the University.

- Staff may hire University vehicles for private use at approved rates. However, approval for such use of University vehicles by staff rests with the Registrar or Vice Chancellor.

- Trucks and buses of the University should not be hired out to the public.

- Deans of Faculty/Heads of Department may apply on behalf of Faculties/Department on the use of University vehicles for field trips/excursions. The cost of such trips shall be charged to the faculty/departments account.

- The approval of the Registrar or Vice Chancellor must be sought before the release any University vehicle to a government institution or any local authority.

- All University vehicles, other than those allocated to the faculty/ institute/ department/ unit/ section shall be placed under the day to day control of the Chief Transport Officer. That will constitute the pool vehicles.

- As much as possible, University officials travelling to common destinations for official business shall strive to use the same faculty vehicle or vehicle from the transport pool to ensure judicious use of resources.

Other important areas summarised in the policy document available in the University and also for the national regulation pertaining to the disposal of vehicles which generally apply to the study include:

- Storage/Parking

- Repairs/ Servicing and Maintenance

- Cost of Repairs/Servicing and Maintenance

- Procurement/ Donation of Spare Parts

- Insurance of Vehicles

- Accident

- Drivers/ Operators of University Vehicle Responsibility
Sanctions against Drivers/ Operators of University Vehicle

Training of Transport Section Staff

Fuelling of Vehicles

Vehicle Replacement

Disposal of Vehicles

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Source: Authors Field Work, (2017)

Conceptual Framework of Vehicle Fleet Management

Achieving value for money points to the utilisation of public resources in a way that creates and maximises public value. Hence, from the conceptual framework above, the researcher seeks to maintain that to derive maximum utilization of University resources there is the need for strong vehicle management policy control on the usage of vehicles belonging to the University. It is understood that the vehicle management policy will provide a framework for creating effective vehicle management environment and for effective utilisation of vehicles in the University. The framework further proposes that an existing effective vehicle management policy will also provide effective strategies to deal with challenges that emerge out of the vehicle policy implementation in the University. The interrelated parts of the conceptual framework could point out clear path on effectiveness and challenges of vehicle fleet management in the University when all parts are well co-ordinated.
RESEARCH METHODOLOGY

The study made use of quantitative research methods. A purposive sampling technique was used to select 161 respondents for the study which comprised 60 senior members and 101 senior and junior staff. It is expected that the sample size would be adequate to serve as a representation for generalizing the results for the whole population. The study population was the entire working force of the University of Education, Winneba-Kumasi Campus. The staff strength of the College is 270. Out of this number, 130 are teaching and non-teaching senior members and 140 are senior and junior staff in the College (HR, UEW-K, 2015).

In determining the sample size, an assumption of 95% confidence level was used, thus, this provided 0.05 as the margin of error. In substituting a 95% confidence level with a population of 270 into the Slovin’s formula, the sample size of 161 was obtained. The sources of data for the study were both from primary and secondary sources. Secondary data were obtained from internet resources, journals, articles, publications, other documents available to the University and books. Through the administration of questionnaire too, the primary data were obtained for the study. The researcher made as many copies as possible and distributed the instruments himself, from office to office at random and made the needed follow ups till all the 161 were obtained.

The data gathered from respondents were coded and analysed using the statistical package for social sciences (SPSS 16.0 version) software. The analysis of the data was tabulated to make it simple for anyone to analyse and be converted into percentages to make it more meaningful for interpretation and then presented through diagrams, bar charts and tables to depict trends and allow for comparison of findings. These enhanced the understanding of the findings and made it more relevant for the purpose of the study.

RESULTS AND DISCUSSION

This section presents the results from the data analysis and further discusses the findings from the study. The data analysis was done with respect to the study objectives. Table 1 shows awareness of a codified transport management policy summarised from the fieldwork.

**Existing Vehicle Management Policies**

**Table 1: Awareness of a codified transport management policy**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>117</td>
<td>72.7</td>
</tr>
<tr>
<td>No</td>
<td>44</td>
<td>27.3</td>
</tr>
<tr>
<td>Total</td>
<td>161</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Fieldwork (2017)

In Table 1, the researcher sought respondent’s view regarding their awareness of the availability of a codified transport management policy. Out of 161 respondents, more than two-thirds (72.7%) indicated being aware of the existence of a codified transport management policy whiles 44 respondents representing 27.3% were not aware of the policy. From the responses, it could be inferred that the University has in place a codified transport management policy.
management policy for effective fleet management in the institution that is known to majority of its employees.

The assessment of vehicle maintenance policy was based on five point Likert scale ranging from strongly disagree (1) to strongly agree (5). The participants were made to rate the fleet management policy based on; vehicle acquisition, driver briefing and debriefing, vehicle routing and scheduling, vehicles repairs and maintenance as well as fuel management. Table 2 shows the descriptive statistics of respondents’ view on the various aspects of the vehicle management policy they know. With a mean score of 3.25, most respondents had knowledge on vehicle acquisition, followed closely by driver briefing and debriefing (mean=3.24), vehicle routing and scheduling (mean=2.94), vehicle repairs and maintenance (mean=2.82) and fuel management (mean=2.75).

Table 2: Descriptive Statistics on vehicle management policies

<table>
<thead>
<tr>
<th>Fleet Management Policy Areas</th>
<th>Mean</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle acquisition</td>
<td>3.25</td>
<td>1st</td>
</tr>
<tr>
<td>Driver briefing and debriefing</td>
<td>3.24</td>
<td>2nd</td>
</tr>
<tr>
<td>Vehicle routing and scheduling</td>
<td>2.94</td>
<td>3rd</td>
</tr>
<tr>
<td>Vehicle repairs and maintenance</td>
<td>2.82</td>
<td>4th</td>
</tr>
<tr>
<td>Fuel management</td>
<td>2.75</td>
<td>5th</td>
</tr>
</tbody>
</table>

Source: Fieldwork (2017)

The result indicates that fleet management policies in the University place significant emphasis on vehicle acquisition. Fleet management comprises all actions needed to maintain and operate pieces of equipment throughout its life from the beginning stages of equipment acquisition to the final stages of asset disposal to ensure that all activities are cost effective. This section of the study presents a discussion of the results analysed above. From Table 2, 72.7% of respondents affirmed that they were aware of the codified transport management policy of the University. Most of the respondents have the view that drivers had knowledge on vehicle acquisition and driver briefing and debriefing as shown in Table 2. According to Norton (2011), a strategic approach to fleet management is one in which the interrelationships among, and between, the many vehicle management and business management functions that organisation must perform to optimize fleet performance and costs is both understood and managed to which the University is no exception. The literature recognised the existence of fleet management policies at the University of Education, and respondents duly affirmed its existence. Ratcliffe (1987) outlined the relevance of fleet management to organisations as being: Vehicle Acquisition, Vehicle Selection, Fuel Management, Vehicle Routing and Scheduling, Vehicle Maintenance, Driver Testing, Briefing, and Debriefing. The fact that the University had in place policies for fleet management meant they could function effectively with respect to Ratcliffe’s (1987) claims.

Effectiveness of Vehicle Management Policies to Ensure Value for Money

The study also found out the levels in which vehicle management policies are effective to ensure improve value for money in academic institution. The results are presented in Table 3 shows the proportions of the various operation levels.
Table 3: Efficiency of vehicle management policies in ensuring value for money

<table>
<thead>
<tr>
<th>Response Scale</th>
<th>Frequency (n)</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational (Junior level Management)</td>
<td>59</td>
<td>38.8</td>
</tr>
<tr>
<td>Tactical</td>
<td>24</td>
<td>15.8</td>
</tr>
<tr>
<td>Strategic</td>
<td>18</td>
<td>11.8</td>
</tr>
<tr>
<td>Not aware</td>
<td>51</td>
<td>33.6</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>161</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Source: Fieldwork (2017)*

From Table 3, approximately 39% of the respondents asserted that the vehicle management policies of the University were effective at the operational level (junior level management) in ensuring value for money. That notwithstanding, 36.6% of the respondents were unaware of the effectiveness of the vehicle management policies.

**Challenges in Fleet Management in the University**

The assessment of challenges in fleet management in the university are shown in Table 4, respondents agreed that vehicular breakdowns or malfunction and vehicle accidents were the most predominant challenges to fleet management in the University. This assertion by respondents is buttressed by Lockhead’s (1986) view that the greatest road haulage drawback is that of breakdowns and breakdowns were indicators of poor maintenance of vehicles and thus more time is spent idle than on a trip. Maina (2013) and Lynne and Lockwood (1998) support this view stating that factors such as government transport policies, import duties, taxation, road infrastructure condition, mode of usage and lack of training posed challenges to fleet management. Hagenzieker (1998) stressed on the provision of incentives whereas Armstrong (2006) outlined staff retention as major issues in fleet management.

The challenges of fleet management in the university were the focus of the section below. The data obtained from the field survey was analysed and the result presented in Table 4 shows the distribution of responses regarding the challenges of fleet management in the University as perceived by respondents.
Table 4: Descriptive statistics on challenges in fleet management in the University

<table>
<thead>
<tr>
<th>Statement on challenges of vehicle management</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicular breakdowns or malfunction</td>
<td>161</td>
<td>1</td>
<td>5</td>
<td>4.04</td>
<td>1.134</td>
</tr>
<tr>
<td>Vehicle accidents/breakdowns increases vehicle repair and maintenance cost</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>4.15</td>
<td>.838</td>
</tr>
<tr>
<td>Timely replacement of damaged/ unserviceable vehicles</td>
<td>156</td>
<td>1</td>
<td>5</td>
<td>3.39</td>
<td>1.110</td>
</tr>
<tr>
<td>Adequacy of proceeds on unserviceable vehicle</td>
<td>146</td>
<td>1</td>
<td>5</td>
<td>3.18</td>
<td>1.224</td>
</tr>
<tr>
<td>High cost of fuel for vehicle usage</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>3.18</td>
<td>1.115</td>
</tr>
<tr>
<td>Shortage of fuel for vehicles</td>
<td>149</td>
<td>1</td>
<td>5</td>
<td>2.72</td>
<td>1.309</td>
</tr>
<tr>
<td>Usage of official vehicle for other purposes</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>2.98</td>
<td>1.143</td>
</tr>
<tr>
<td>Poor scheduling of vehicles could cause waste of financial resources</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>3.96</td>
<td>.801</td>
</tr>
<tr>
<td>Traffic congestion causes delays in efficient delivery of transport services</td>
<td>161</td>
<td>1</td>
<td>5</td>
<td>3.77</td>
<td>1.085</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SD=Strongly Disagree, D=Disagree, N=Not Sure, A=Agree, SA=Strongly Agree

Source: Fieldwork (2017)

Few respondents agreed that vehicular breakdowns (x=4.04, ±SD=1.134), vehicle accidents/breakdowns (x=4.15, ±SD=0.838), financial resources (x=3.96, ±SD=0.801), traffic congestion (x=3.77, ±SD=1.085) poses challenges to fleet management. Majority of the respondents were, however, not sure that timely replacement of damaged vehicle (x=3.39, ±SD=1.110), adequacy of proceeds on unserviceable vehicles (x=3.18, ±SD=1.224), high cost of fuel for vehicle usage (x=3.18, ±SD=1.115), shortage of fuel for vehicles (x=2.72, ±SD=1.309) and usage of official vehicle for other purposes (x=2.98, ±SD=1.143). From the results, it can be resolved that vehicular breakdowns as a result of accidents, financial difficulties, traffic congestion remain the major challenges faced by the Transport Section of the University in the management of the University’s fleet of vehicles.

Table 5 shows Kendall’s Coefficient of Concordance on the challenges of vehicle management at the University. Kendall’s coefficient was calculated on the means of the following as they apply to vehicle management: vehicle accidents/breakdowns, vehicular breakdowns or malfunction, poor scheduling of vehicles, traffic congestion, timely replacement, adequacy of proceeds, high cost of fuel, usage of vehicle for official purposes and shortage of fuel for vehicles.

**Measures to Address the Challenges for Effective Vehicle Management**

In addressing the challenges of effective vehicle management in the university, some factors were considered and assessment of these factors was made to ascertain their contribution to effective vehicle management. Table 6 shows respondents’ responses on the measures that address the challenges for effective implementation of vehicle management in the University.
Table 6: Descriptive statistics on measures to be adopted

<table>
<thead>
<tr>
<th>Statement on measures to be adopted</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>±SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment of competent drivers/mechanics for the Transport Section</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>4.23</td>
<td>.990</td>
</tr>
<tr>
<td>Reward system to retain staff of the Transport Section</td>
<td>155</td>
<td>1</td>
<td>5</td>
<td>3.81</td>
<td>.898</td>
</tr>
<tr>
<td>Periodic upgrade of skills and knowledge of drivers</td>
<td>156</td>
<td>1</td>
<td>5</td>
<td>3.99</td>
<td>.937</td>
</tr>
<tr>
<td>Periodic appraisal of the performance of drivers</td>
<td>152</td>
<td>1</td>
<td>5</td>
<td>3.90</td>
<td>1.008</td>
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<tr>
<td>Compliance of vehicle management policy by staff</td>
<td>155</td>
<td>1</td>
<td>5</td>
<td>3.85</td>
<td>.917</td>
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<tr>
<td>Safety of University vehicles</td>
<td>155</td>
<td>1</td>
<td>5</td>
<td>3.98</td>
<td>.970</td>
</tr>
<tr>
<td>Immediate replacement of unserviceable vehicles</td>
<td>158</td>
<td>1</td>
<td>5</td>
<td>3.84</td>
<td>1.105</td>
</tr>
<tr>
<td>Alternative routes to ease vehicular traffic</td>
<td>155</td>
<td>1</td>
<td>5</td>
<td>3.82</td>
<td>.922</td>
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<tr>
<td>Regular maintenance of vehicles</td>
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<td>1</td>
<td>5</td>
<td>3.91</td>
<td>1.119</td>
</tr>
<tr>
<td>Involvement of staff in the Transport Section in purchasing vehicles</td>
<td>146</td>
<td>1</td>
<td>5</td>
<td>3.59</td>
<td>1.100</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>132</td>
<td></td>
<td></td>
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</tbody>
</table>

SD=Strongly Disagree, D=Disagree, N=Not Sure, A=Agree, SA=Strongly Agree

Source: Fieldwork (2017)

Respondents agreed that employment of competent drivers ($x=4.23$, $±SD=0.990$), use of reward systems to retain staff of the Transport Section ($x=3.81$, $±SD=0.898$), periodic upgrade of skills and knowledge of drivers ($x=3.99$, $±SD=0.937$), periodic appraisal of driver performances ($x=3.90$, $±SD=1.008$), compliance of vehicle management policy ($x=3.85$, $±SD=0.917$), ensuring the safety of University vehicles ($x=3.98$, $±SD=0.970$), immediate replacement of unserviceable vehicles ($x=3.84$, $±SD=1.105$), alternative routes to ease vehicular traffic ($x=3.82$, $±SD=0.922$), regular maintenance of vehicles ($x=3.91$, $±SD=1.119$) and involvement of staff of the Transport Section in purchasing vehicles ($x=3.59$, $±SD=1.100$) are measures that could be used to address the challenges of fleet management in the University. The study by Tandu, Abeki and Nnaa (2008) stated that an organization’s ability to select competent employees will determine how successful the organisation will become. Armstrong (2006) buttressed the view of retaining staff whereas Lynne and Lockwood (1998) supported the assertion of providing training for drivers. In Bratton and Golds (2007) view effective reward systems tap into the values and issues that are important to people with Mullins (2005) citing employee involvement and relations as being integral to organisational success.

CONCLUSION

Fleet management has become integral to the success of vehicle movement in institutions and must be a priority for organisations. Transport staff must as always be aware of the basic rubrics that accompany vehicle management. It can be concluded from the results that there might exist fleet management policies but frantic efforts must be made to make staff aware of...
these policies. Moreover, regular maintenance must be conducted on vehicles, the skills of drivers must be upgraded on consistent basis to keep them abreast with road safety issues, as breakdowns were recognized to be the major challenge to fleet management in the study.

The following recommendations are made based on the conclusions on the study:

- Investing in driver training to ensure drivers understanding of professional ethics in Driving and Road Traffic Regulations.
- Over-aged vehicles should be withdrawn from the transport pool and be replaced with new ones to reduce frequent breakdowns, high maintenance cost and high fuel consumption.
- To ensure discipline and effective work flow in the University, Management should put in place measures to ensure that all staff comply with the fleet management policies of the University and appropriate penalties be meted on staff who go against the policies.
- Regular training programmes should be organized for staff to ensure they are kept up-to-date with issues on road safety.
- Staff of the Transport Section views should be considered when making arrangements to procure new vehicles for the University.
- The University could consider the usage of fuel coupons to relieve staff who usually goes through stress of bureaucratic procedures to acquire fuel for official duties.
- For effective adherence to the policies, all staff be well-informed of the University’s fleet management policy.
- Maintenance personal should undertake repair and servicing of vehicles and must be aware of the importance of preventive maintenance to reduce vehicle breakdowns.
- Incentives should be awarded to the drivers/ maintenance staff for dedicated service and assisting in controlling and reducing breakdowns.

REFERENCES


