

CHRISTIAN SERVICE UNIVERSITY COLLEGE



**SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND FINANCE**

**DETERMINANTS OF OPERATING COST OF COMMERCIAL TRANSPORT IN
GHANA. A STUDY OF THE KEJETIA BUS TERMINAL IN THE KUMASI
METROPOLIS.**

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**A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND
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ABSTRACT

Review of fuel prices by National Petroleum Authority mostly creates stiffness between operators and commuters, as fares are usually increased beyond percentage reviews. Commuters feel cheated by drivers as a result of that. Operators are with the view that they are not treated fairly by the government as they also claim fuel prices review should not be the only fares determinant. This work explores on the other cost elements and to ascertain which cost element is dominant and should influence transport fares. The research population was drivers, Ghana Private Road and Transport Union, car owners and other transport union in Kejetia bus terminal. It was found that other cost elements such as lubricant and spare parts constitutes 23%, maintenance and repairs 23%, insurance premium 22%. It was also found out that all other cost elements constitute 68% of total operation cost of commercial transport. Recommendations are that, the interest of all stakeholders (drivers, Ghana Private Road and Transport Union, government and passengers) should be considered in commercial transport fares determination to arrive at a satisfactory fares. Also government should ensure that the cost of spares parts, tires, lubricants are subsidised so that operators can afford quality products.

DEDICATION

We dedicate this master piece to our parents and all who contributed one way or another to the financing of our education and helping make this dissertation complete and successful.

ACKNOWLEDGEMENT

We are very grateful to the Almighty God for seeing us through this level of education and giving us the guidance to write this work to perfection. We also appreciate and acknowledge our humble but hardworking supervisor, Mr. Christopher Bright Daboug for his tireless effort and selfless supervision of this wonderful write up, we couldn't have made it that easy without him.

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CHAPTER ONE

INTRODUCTION

1.0 Background of Study

Fair price, charges, levies bring satisfaction and efficient exchanges among partners involved. It does away with shortages and inefficient supply or delivery of goods and services. Commercial transport which basically seeks to convey goods, services and passengers to and from one geographical location to another, falls within this category of exchanges. It creates relationship between commuters on one side and operators on the other in conveying commuters, where they will have to financially satisfy operators for an efficient and convenient service provision.

Fares being the consideration must be obligated and determined satisfactorily by the stakeholders. Failure by these regulatory bodies would result in dissatisfaction among the stakeholders; the operators and the commuters. The consequence would affect supply of services, misunderstanding and taking of an undue advantage particularly on the weaker side. The operators do this by withholding supply of services and charging of discriminate high fares. This has been a bone of contention among the GPRTU, owners of commercial transport, drivers, passengers and the government. Operators (Ghana Private Roads and Transport Unions) and drivers have constantly lamented that frequent fare reviews should not be solely dependent on review of fuel prices. In their view there are other major determinants of running transport and for that matter, commercial transport. The commuters on the other hand are of the view that fuel prices should be the only determinant. This constantly creates problems whenever prices of fuel are reviewed and fares are fixed slightly above the percentage change.

1.1 Problem Statement

Commercial transport fares reviews have been directly dependent on fuel prices reviews in the country. The magnitude of increase in fuel prices has been the basis of determining fares. This practice in most cases does not satisfy the stakeholders particularly the operators and the passengers. Drivers on one hand feel cheated by the fares charged by operators. Operators on the other hand feels unfairly treated by the government because they feel commercial transport fares should not be dependent on only fuel prices reviews as they claim other cost element such as insurance premium, maintenance and repairs, lubricants and spare parts, distance are dominant and sufficient enough to review transport fares. This creates instances where percentage review in fuel prices by the National Petroleum Authority (government) in most cases has outstripped the percentage review of fuel prices. Most of the time, this results in friction between operators and commuters, lasting for weeks and months after announcement of new prices. Operators justify their action that fuel prices review cannot and should not be only determinant of fares. These operators take advantage to charge fares above announced fares sometimes even by the Ghana Private Road and Transport Union (GPRTU) which is the supervising board. This piece of work is aimed at exploring other costs and how these costs play major roles in running commercial transport and hence should be factored in the equation of commercial transport fares.

1.2 Research Questions

1. What are the elements of cost of running commercial transport?
2. Which elements of cost are perceived by transport operators to be dominant?
3. Who are the stakeholders and how effective are they playing their roles in fares determination?

4. What are the challenges associated with frequent fare fixation of commercial transport?

1.3 Research Objectives

1. To ascertain the elements of cost of running commercial transport.
2. To examine the dominant cost factor in running commercial transport and hence fares determination.
3. To assess the effectiveness of the role of policy makers on commercial transport price determination.
4. To examine the challenges associated with frequent price fixation of commercial fares.

1.4 Significance of the Study

This study can serve as a source and a guide for policy makers concerned in commercial transport fares determination. The research will help students and lecturers particularly of the Social Science Department of Universities and Colleges, the Ghana Private Road and Transport Union (GPRTU) and other organized transport union. The Public would also find this document very useful. It will create the awareness that review of fuel price should not only constitute the increment of commercial transport fares. Therefore, other cost elements such as repairs and maintenance, insurance premium, lubricant and spare parts etc. which have a great impact on operating commercial transport and hence transport fares. The findings of this work would serve as a guide and do away with the misperception that exist among operators, drivers and passengers.

1.5 Scope of the Study

The geographic scope is Kumasi Metropolis. The population unit of analysis are people that are served by commercial transport services within the geographic area. This includes the Ghana Private Roads and Transport Union, other organized transport union and the public as well. In view of this, most of the questions will be directed to the stakeholders of commercial transport service for relevant explanation and proper understanding.

1.6 Organization of the Study

This study is organized into five chapters. Chapter one clearly states the background, problem statement, research objectives and questions. Chapter two reviews the relevant literature. Chapter three focuses on the research methodology, which describes the research design, tools for data collection, population and sampling techniques, data collection procedures and data analysis. This includes method of data collection and analysis. Chapter four is the presentation of the findings and the analysis of the data collected. Finally, chapter five also presents the summary of the findings, the recommendations and conclusion of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on the determinant of operating cost of commercial transport. It focuses on matters such as brief history of Commercial Transportation in Ghana, operating cost of commercial transport and the challenges associated with the review of fuel prices on commercial transport.

2.1 Commercial Transportation

Road transport can be said to be the major and most popular means of transport in Ghana. Most of the movement of goods and people ultimately begins and ends by the use of roads. Roads act as an important feeder to the other modes of transport such as railways, ships and airways. Commercial vehicle is any type of motor vehicle used for transporting goods and passengers. The European union defines commercial motor vehicle as any motorized road vehicle, that by its type of construction and equipment is designed for and capable of transporting whether for payment or not. In the United States, a vehicle is designated 'commercial' when it is titled or registered to a company. It includes fleet vehicles, company cars or other vehicles used for business.

According to Metro Mass Transit 2011 Report, only 15% of the road users use private cars, while 85% use commercial transport. Vehicles designed to carry more than five passengers are considered as commercial vehicles. In Ghana such vehicles include taxi cabs, trotro, passenger buses, airways and trains. Three main road Commercial transport in Ghana are taxi, Trotro and long distance transport.

2.1.1 Taxi

It is a commercial vehicle which carries goods and passengers not more than five including the driver. Ghana is said to be the country with most taxis of the world (Metro Mass Transit Report, 2007). Taxis in Ghana are painted in two colours: the four bumpers fenders are yellow or orange and the other parts the colour of the operator's choice. A taxi is shared by 4 or 5 passengers who wait at a station until it becomes full before departing. Passengers also have the option of paying for the empty seats to get the taxi moving to their defined destination. This is more expensive than waiting for the taxi to be full. The technical term for such act in Ghana is called 'dropping'. Majority of taxis in Ghana are powered petrol and diesel, whereas the remaining few consume gas.

2.1.2 Trotro

The name trotro means 'coin – coin' which refers to the little amount that should be paid to travel from one place to another. These cars are typically minibuses and vans, with most popular being Nissan urvan 15-seaters and Mercedes Benz sprinter buses. Trotros are decorated with flags and stickers of various countries local and international soccer teams and with funny sayings, wisecracks, bible verses, proverbs in English and local languages printed on the buses. Trotro usually stops at bus-stop and conveys passengers. The World Bank Consultative Citizens Report Card: 2010 for the City (Accra Ghana) found that, 70% of Ghanaian commuters patronise the service of trotro, making it the most widely used transport. Trotro is a mini bus that has seats between ten and twenty five and operate along specific routes within the cities and towns. These days, the trotro has become the main form of transport primarily for its affordability. More commonly, the trotro 'mate' who is the drivers assistant collects the fares, He leans out from the right side of the bus as it approaches a bus- stop and announces the buses destination using verbal and signals.

2.1.3 Long Distance Transport

Passenger buses are used by a few individuals and organisations for long distance transport. Long distance transport vehicles convey both passengers and goods within long distance mostly from one town to another. Also private companies patronise passenger buses to convey and disperse staff to and from their homes. Intra-city mass transport also carries passengers to their preferred destination. Many public bus services run to a specific time table, giving specific time of departure and arrival. Bus drivers may be required to collect fares and inspect a travel pass. Alternatively, this duty may be delegated to a conductor who tells where the bus is heading towards. In other ways, long distance buses may operate on ticket validation which may be used for on-board or off-board as a proof of payment system.

2.1.4 Railway Transport

Railway transport is the movement of passengers and goods using wheeled vehicles made to run on railway tracks. It is commonly referred to as train transport. It is often less flexible and more capital intensive than high way transport when low traffic levels are considered. Currently railway transport in Ghana is at the development stage, the southern sector is the only portion of the country benefiting. Meanwhile, northern part of the country is soon to be connected with the national rail line after the completion of tracts connecting the south to the north.

2.2 Operating Cost for Commercial Transport

Operating cost is the cost of resources incurred by an organization just to maintain its existence (K. P. Gupta, 2009:199). According to Booz Allen & Hamilton, 1999, vehicle operating costs refers to the cost of vehicle usage such as fuel, tires, maintenance, repairs, and mileage-dependent depreciation costs. According to them, the type of vehicle determines its

operating cost which is varied by vehicle size, class and other characteristics. Trucks usually have higher operating cost than other vehicles. Some vehicles have expensive body parts, consumes much fuel than others. Below are the various cost elements of Commercial Transport.

2.2.1 Fuel

Fuel is substance that stores potential energy in the form that can be practicably released and cause vehicles to move. According to Industry Data compiled by Automotive Fleet Magazine 2007, the overall operating cost for commercial vehicle increased by three percent in 2007. Across all vehicle classifications, this increase is directly attributable to high fuel cost. The higher fuel price also had an effect on increasing prices of other oil-based products. High fuel price increases the operating cost of commercial transport fares.

There are two issues in calculating fuel costs: the expected consumption of fuel by a given model, and the price of fuel. This is addressed separately, so that analysts can modify assumptions about fuel mileage and prices as these factors advance with time. Fuel costs are further modified based on the balance between highway and city driving conditions. Full “city” conditions lead to more fuel usage on average. Extreme congestion will lead to levels even higher than this. All in all commercial transportation is an enviable position. The reduction in fuel price is not likely to reduce commercial transport fares.

Also, the vehicle speed which according to Booz Allen is the dominant factor affects vehicle operating cost. Typically operating cost decrease with increasing speed to a certain point and then begins to increase with an increasing speed. Most vehicles consumes much fuel when the cars are in high speed while others do not, hence if a commercial operator decides to use such vehicles for their operations might incur much cost on their vehicle operating cost.

Notwithstanding the speed changes of a vehicle, the changes in speed or the speed cycle increase vehicle operating cost. This added cost is higher when speed cycling occurs at higher speeds.

2.2.2 Insurance Premium

Vehicle insurance is an insurance purchased for cars, trucks, motorcycle and other road vehicles. Its primary use is to provide financial protection against physical damages and bodily injury resulting from traffic collisions. Specific terms of insurance vary with legal regulations in every country and hence regions, according to Mr. Atsu K. Menyavovor, Chief Executive Officer of Ghana Insurers Association. Vehicle insurance is also known as motor insurance. Insurance premiums are paid after which the vehicle insurance is registered. Insurance premium for vehicle is the payment made on regular basis to keep the vehicle coverage active. It is paid depending on the provider, for example some drivers pay monthly premiums and others pay every three and six months. In some vehicles, drivers get discounts when paid full premium in advance.

2.2.3 Maintenance and Repairs

Vehicle maintenance describes the act of inspecting and repairing vehicles' subsystems such as engine servicing or replacing parts and fluids. Regular maintenance is critical to ensure the safety, reliability, comfort and longevity of the vehicle. During preventive maintenance, a number of parts are replaced to avoid major damage and ensure safety among drivers and commuters.

Vehicle repairs are costs incurred to bring an asset back to its former condition and to keep the asset operating. In repairing vehicles, their main role is to diagnose the problem

accurately and quickly. The costs of maintenance are estimated based on the manufacturers' recommended maintenance schedule.

According to John Nielsen, Director of the American Accounting Association (A.A.A) and Automotive Engineering and Repair 2013, the costs associated with maintaining a vehicle had the single largest percentage increase from 2012 to 2013, growing by 11.26 percent to 4.97 percent on average. AAA's estimates are based upon the cost to maintain a vehicle and perform needed repairs for five years including labour expenses and replacement part prices. The costs of the various forms of maintenance are based on industry-standard service times, national labour-rate averages, and manufacturers' suggested list price for parts. There is positive correlation between maintenance and repairs and operating cost of vehicle. That is to say that the higher the maintenance cost, the higher the operating cost of vehicle.

Furthermore, gradient that is grades can be either positive (uphill) or negative (downhill). Positive grades are more demanding on vehicle engines and require greater fuel consumption, this leads to an increase in operating cost whereas negative grades may reduce operating cost, but may also increase wear on brakes. A high curve requires greater output of energy from a vehicle to counter the centrifugal force which is the force that makes the vehicle to sway it's direction. This combined with additional wears on the vehicle tires lead to an increase in operating cost. The road surface affects the operating cost of commercial vehicles in the sense that operators have to drive away all rough roads which leads to their destination. Rough surface can reduce speed, requires greater fuel consumption, increase wear on tires and increase maintenance cost.

2.2.4 Lubricant and Spare Parts

Lubricant is a substance that reduces friction between surfaces in mutual contact which ultimately reduces the heat generated when the surfaces move. It may also have the transmitting forces, foreign particles or heating cooling surfaces. Lubricant is key element for industrial, transport application and automotive. Lubricant ensures optimal and evenly distributed bearings thus reducing friction and wear. Installation of an automatic centralized lubricant system drastically reduces repair and maintenance costs.

Vehicle spare parts are the replacements to original factory body parts of vehicles when they are no longer functioning. Most of spare parts include vehicle body and main parts; bonnet, bumper etc, vehicle doors; outer and inner handle etc windows, electrical and electronics and so on. The sustenance and going concern of public transport is therefore disturbed to the extent that to replace vehicle, especially at the end of their useful life become very difficult. Sometimes the spare parts available are out of date and not suitable for vehicle maintenance. This situation has led to the concept of ‘trial and error’ at maintenance work shop’s especially the road side mechanics. The cost of the new spare parts obtained from the manufactures representatives is too high and therefore eating deep into the revenues of commercial transport owners. The rising cost of spare parts is having a serious negative effect on the commercial transport business. The higher the cost of spare parts, the higher the operating cost, the lesser the revenue of operators of commercial transport.

2.3 Impact of the Review of Fuel Prices on Commercial Transport.

When fuel prices were increased in the year 2000, there were concerns about the impact on the transport sector. Therefore it was considered worthwhile to look at the effects of a significant and durable change in fuel prices on transport cost, transport demand and transport

externalities. Fuel prices only constitute a fraction about 23% of total transport costs; according to Jacques Delsalle, the Directorate General for Economic and Financial Affairs. The fuel price constitutes only a part of the cost of operating transport. Therefore, the percentage increase in the final price of fuel is due to the variation in US national currency exchange rate, excise duty, Value Added Tax (VAT) rates and profit margins of the fuel production.

In Ghana, Prices of fuel and transport fares increased three times in 2014 which affected stakeholders of transport and the economy at large. Some drivers expressed the fear that the increases would adversely affect their businesses. Commuters on other hand stopped patronizing the services of drivers because of the higher fares charged since the new charge affected their real income. Other sections of commercial transport also entreated the government to formulate effective strategies to mitigate the effects of such price hikes.

Mr. Yaro Kasanbata, the Public Relations Officer of the National Petroleum Authority (NPA) said the changes in fuel prices had come about as a result of the change in product prices, the exchange rate and other factors. He explained that government subsidies had been removed because whenever there were delays in payment, the NPA was denied letters of credit to import fuel. Therefore, the full cost of the product is passed on to the consumer.

The review of fuel prices and transport fares affect every product in the country such as the price of spare parts, food etc. There is a strong direct relationship between the price of fuel and operating cost of transport since fuel is perceived to be the dominant factor affecting cost of operating vehicle.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on research methodology which lays more emphasis on the research design, research population, sampling techniques, sample size, source of data, data collection methods and the data analysis.

3.1 Research Design

According to William M.K. 2006, research design is the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, which is aimed at addressing the research problem. It constitutes the blueprint for the collection, measurement, and analysis of data.

3.2 Research Population

In view of Mason et al. (1997): the population of a study is the collection of all possible individuals, objects or measurements of interest. The research population is the car owners, drivers, GPRTU and the other drivers union. The estimated population for the research is about Three thousand (3000).

3.3 Sample Size

A sample is a finite part of a statistical population whose properties are studied to gain information about the whole (Webster, 1985). In research, it is mostly difficult to study the entire population. However, some researchers do overcome this difficulty in situations where the study population is small and not very scattered. Therefore, the size of the study sample and the way in which it is chosen will certainly have implications for the confidence in the

results and the extent to which generalization can be made. The sample size chosen for this study is demonstrated below:

$$n = \frac{N}{1 + N(e)^2}$$

Where n represents the number of respondent going to be used for data collection, N is the total population and e is the sampling error and the sampling error is 0.05;

The solution:

$$n = \frac{3000}{1+3000(0.05)^2}$$

$$n = \frac{3000}{1+3000(0.0025)}$$

$$n = \frac{3000}{8.5}$$

$$n = 353$$

If n = 353, therefore the sample size for this study is three hundred and fifty-three (353). Out of the 353 questionnaires designed for the sample size, 300 responded.

3.4 Source of data

Both primary and secondary sources of data were used for the study. Primary source of data was deemed appropriate because researchers have collected data under control for specific purpose which makes it more accurate and reliable (N.N.N. Nsowah Nuamah, Basic Statistics, 2005; 115-116). Secondary data was sourced from internet, textbooks, journals, articles, database and other publications on operating cost of commercial vehicle.

3.5 Data Collection Instruments

The data collection methods used are as follows;

3.5.1 Questionnaire

Questionnaire is a series of questions to individuals to obtain statistically useful information about a given topic. It was self-administered to respondents. The reasons for choosing this instrument are, it produces quick response and it is less expensive. The questionnaire contained both close-ended and opened questions.

Questions such as “which cost elements constitute the operating cost of commercial vehicle?, which of the elements of cost is the dominant factor in determining the price of fares in commercial transport?” were asked.

The close-ended questionnaires demanded a “Yes” and “No” answers from respondents whilst the open-ended questionnaires allowed to express their opinion the issue.

The close-ended questions involved questions that were answered by simply checking a box from the set of options that were provided while the open-ended questions sought to encourage respondents to share as much information as possible in an unconstrained manner. The close-ended questions allow for easier analysis of the data due to standardized questions.

3.5.2 Interviews

An interview is a direct face-to-face attempt to obtain reliable and valid measures in the form of verbal responses from one or more respondents. It is a conversation between the interviewer and the respondent to solicit for information. Interviews are a very common research tool in the social science, and as such, attract a great deal of commentary and discussion. During the interview the researchers made personal contacts with some of the

respondents in the groups especially the drivers since some could not read and write so they were not in the position to answer the questionnaires by themselves. Hence the total number interviewed was ninety-eight (98) drivers. The reason for choosing this instrument is that it allows the interviewer to clarify questions to the respondents.

3.6 Method of Data Analysis

The method of data analysis used for the study was Statistical Package for the Social Sciences (SPSS). The results would be presented in the form of percentages, tables, graphs and pie charts. The tables were used to enhance the readers understanding of the data presented in the reports. The responses and results are presented in chapter four.

3.7 Ethical Considerations

The confidentiality of information obtained in this research would not disclose any information to third party without proper authority. This research is solely for academic purpose; therefore, the respondents are assured that information obtained would be treated with utmost confidentiality.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter presents the analysis and discussion of the data gathered for the study. The description and interpretations of data was done using both quantitative and qualitative tools such as tables, proportion and charts.

4.1 Demographical Analysis

The analysis of Demographics included gender, ages of respondents and their educational background.

4.1.1 Gender Responses.

Table 4.1: Gender of Respondents.

Gender	Frequency	Percentage
Male	300	100
Female	0	0
Total	300	100

SOURCE: Research Field, April 2015

Three hundred (300) respondents, all male. This shows that it is a male dominated field representing 100% showing the dominance of male in the profession.

4.1.2 Age of Respondents.

Table 4.2: Age of Respondents.

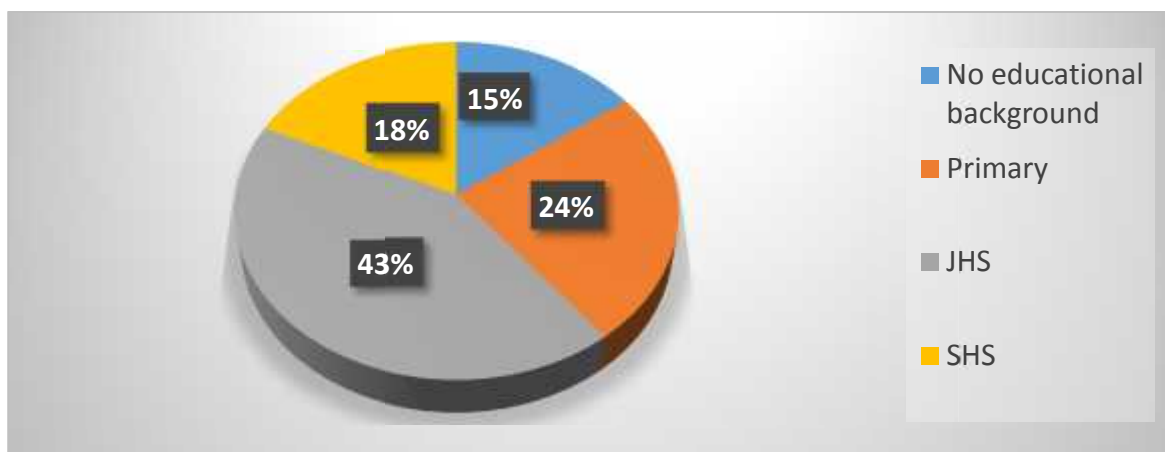
Age	Frequency	Percentage
18-28	36	12
29-39	162	54
40-50	78	26
51-60	12	4
62 and above	12	4
Total	300	100

SOURCE: Research Field, April 2015

Regarding the age distribution, from table 4.2 respondents within 18 and 28 years were 36 representing 12% whiles, 162 respondents representing 54% are between 29 and 39 years. Whereas 78 respondents representing 26% were between 40 and 50 years. This shows that majority of those in the driving profession are within the youthful age of 29 and 39 years.

4.1.3 Educational Background

Figure 4.1: Educational Background of Respondents.



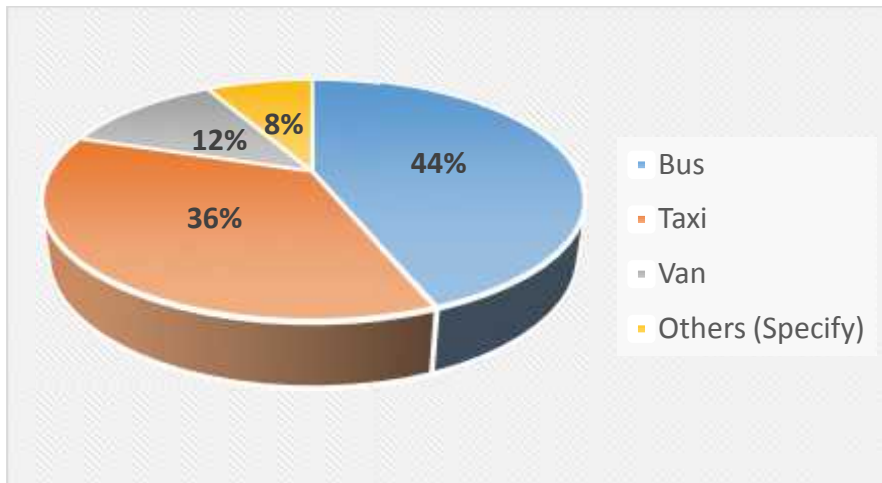
SOURCE: Research Field, April 2015

From figure 4.1 majority of the respondents representing 43% are high school graduates. Whereas 24% respondents are primary school leavers, 18% respondents are senior high

school graduates and 15% has no education background. This demonstrates the domination of junior high school leavers in the driving profession.

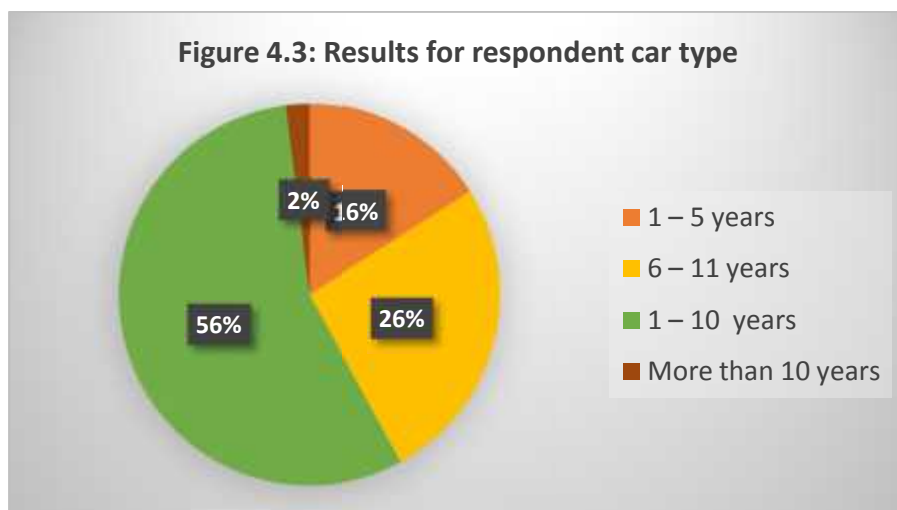
4.1.4 Respondents car types

Figure 4.2: Results for respondent car type



From table 4.2, majority representing 44% use mini buses, 36% use taxis while 12% use Vans and 8% use other cars.

4.1.5 Period of Use of Vehicle

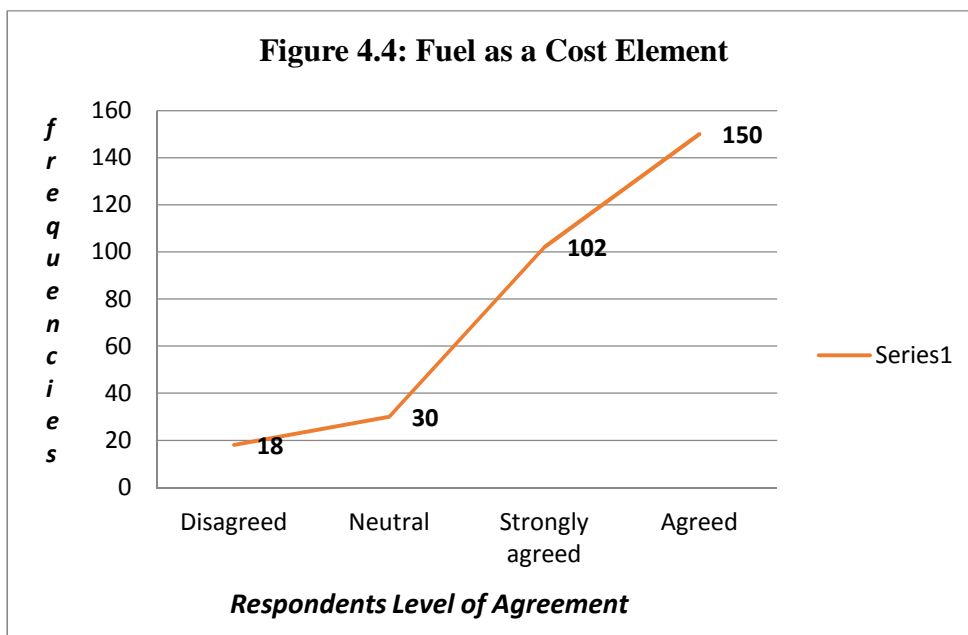


From figure 4.3, 2% of the respondents vehicles have been in use for more than 10 years. Whereas 16% of the respondents have used their vehicles between 1 and 5 months while 26% have used their vehicles between 6 and 11 years.

26% have used their vehicles between 6 and 11 months. The majority of them which is 56% have been using their vehicle between 1 to 10 years. This implies that most of the vehicles have been in the transport sector are between 1 and 10 years.

4.3 Element of cost of running commercial transport.

4.3.1 Fuel as a Cost Element



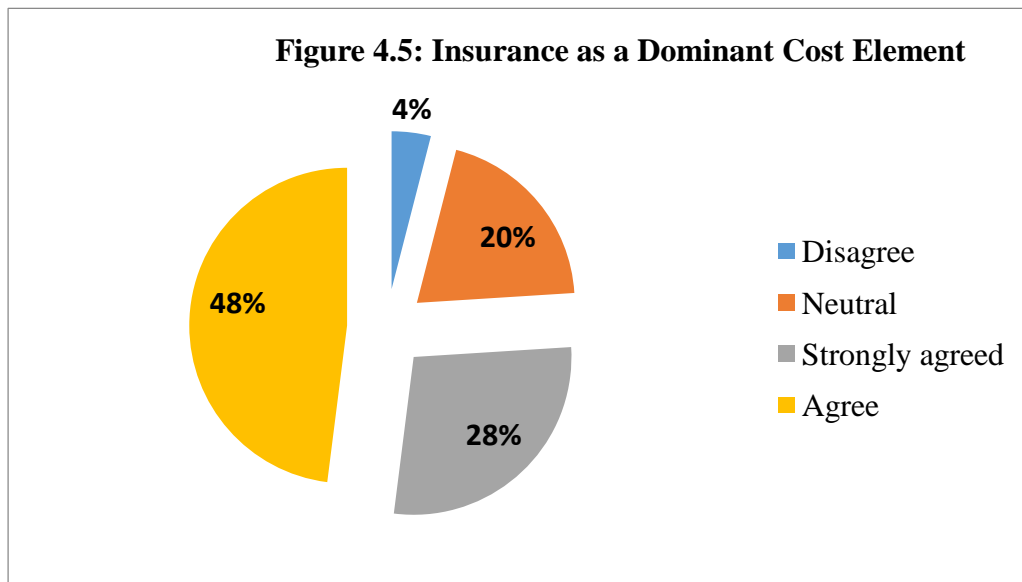
SOURCE: Research Field, April 2015

Figure 4.4 shows that out of the 300 respondents, the majority of 150 are of the view that fuel is the major determinant of cost and should hence influence transport fares. Also 102 respondents strongly agreed, while 30 were neutral and 18 disagreed. Whereas 150 respondents representing. This is also showed in table 4.3 below.

Table 4.3: Fuel as a Cost Element of running commercial transport

Respondents Level of Agreement	Frequency	Percentage
Disagreed	18	6
Neutral	30	10
Strongly agreed	102	34
Agreed	150	50
Total	300	100

4.3.2 Insurance as a Dominant Cost Element



From the figure above, 4% of respondents representing the minority among the respondents disagreed that insurance is a cost element while 20% were neutral, also 28% strongly agreed to the point that insurance is a cost element constituting to the operating cost of commercial vehicle and 48% forming the majority agreed on insurance as cost element. There is a clear indication that almost 25% of drivers have not registered for the insurance policy since they do not perceive insurance as a cost element.

4.3.3 Maintenance and Repairs as a Cost Element

Figure 4.6: Maintenance and Repairs as a Cost Element

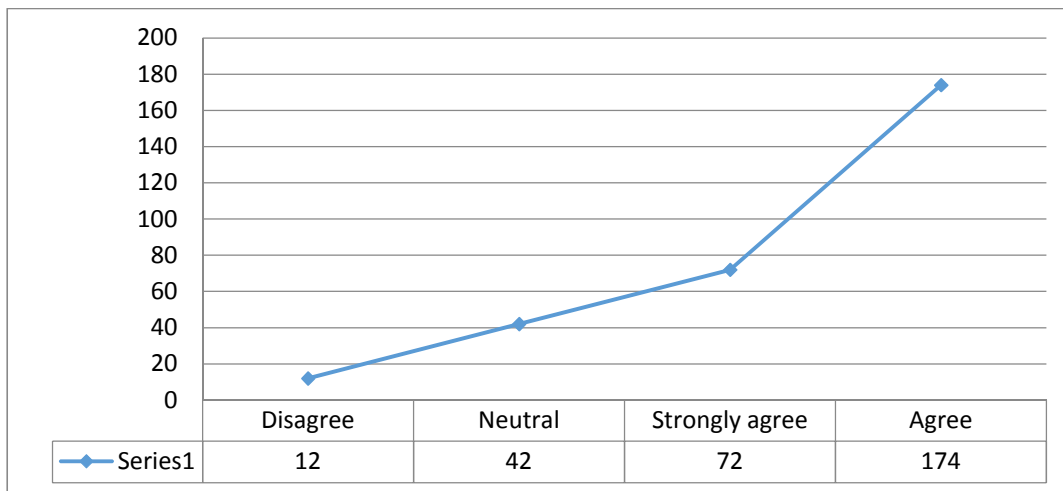
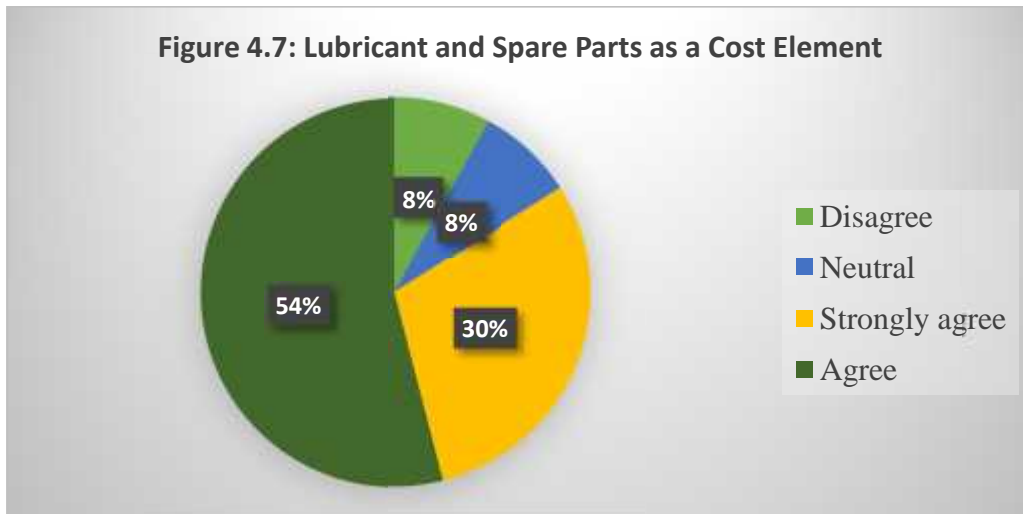


Figure 4.6 signifies that Hundred and Seventy-Four (174) respondents agreed that maintenance and repairs constitute the operating cost for running commercial vehicle representing 58%, while seventy-two (72) of them strongly agree to this claim representing 24%, Forty-Two were neutral representing 14%. Twelve respondents disagreed that maintenance and repairs is a constitute of operating cost representing 4%. This gives clear evidence that 58% forming the majority agreed. It could be as a result of majority of respondents operating with their vehicles within 1-10 years, given a clear knowledge of high maintenance and repairs cost.

4.3.4 Lubricant and Spare Parts as a Cost Element

The majority of the respondents been 54% agreed that lubricant and spare parts constitute the operating cost of commercial vehicle with a frequency of One hundred and sixty-two, also 30% strongly agreed with ninety frequency, while 8% were neutral with a frequency of twenty-four and the remaining 8% disagreed with twenty-four frequency. From the responses, it could also be concluded that as a result of poor road condition in Ghana,

majority of respondents agreed to lubricants and spare parts as a cost element because they incur high cost on some parts of their vehicles. This is illustrated in the chart below.



4.4 Examining the Dominant Cost Factor in Running Commercial Transport Fares

4.4.1 Fuel as a Dominant Factor in Determining Vehicle Fares

Furthermore, *figure 4.8* shows that, Out of the Three Hundred respondents, 70% representing the majority of the respondents strongly agreed that fuel is the dominant cost factor with a total frequency of two hundred and ten, whiles 24% agreed, whereas 4% strongly disagreed and 2% were neutral with a frequency of seventy-two, twelve and six respectively. Fuel was regarded as the dominant cost factor by the majority because most of the respondents have noticed that changes in the cost of fuel also affect the other cost elements of determining vehicle fares.

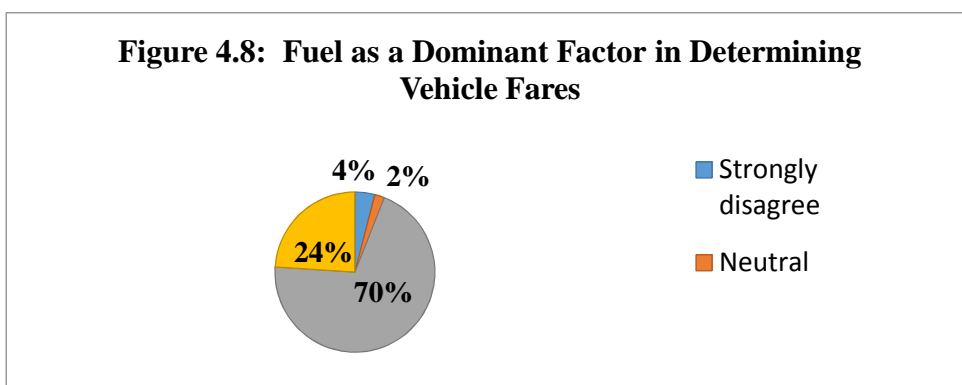
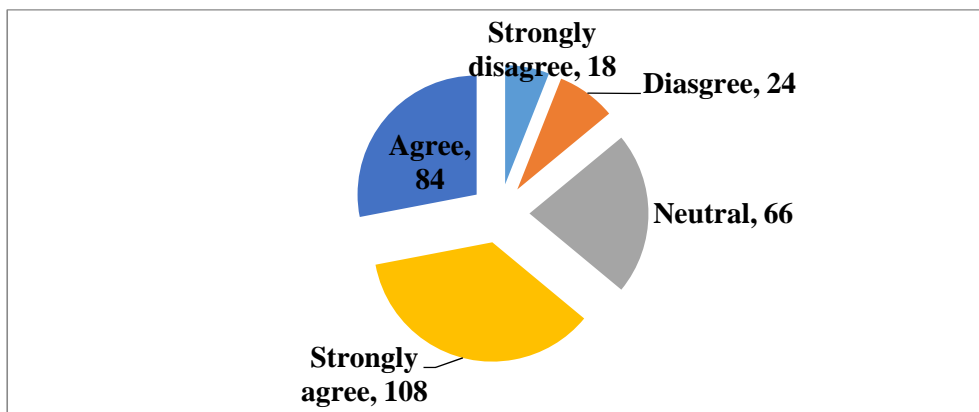


Table 4.4: Fuel as a Dominant Factor in Determining Vehicle Fares

Respondents Level of Agreement	Frequency	Percentage
Strongly disagree	12	4
Neutral	6	2
Strongly agree	210	70
Agree	72	24

4.4.2 Insurance as a Dominant Cost factor of Fares Determination

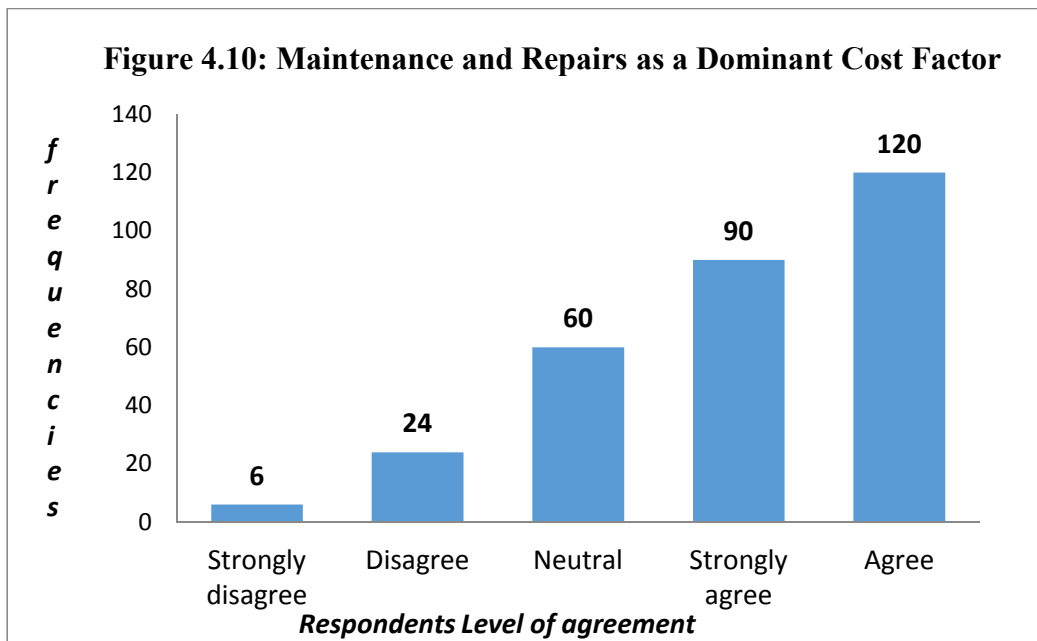
The majority of the respondents which represents one hundred and eight out of the three hundred claimed that insurance premium is the dominant cost factor in determining price of fares in commercial vehicles representing 36%, fourteen agreed, whiles eleven were neutral about the factor with a percentage of 22, also twenty-four disagreed representing 8% and eighteen disagreed with a percentage of 6. This is illustrated in the pie chart of below. (Figure 4.9)



4.4.3 Maintenance and Repairs as a Dominant Cost Factor.

One hundred and twenty out of the three hundred respondents agreed that maintenance and repairs is the dominant factor representing 40%, ninety strongly agreed with a percentage of 30, sixty were neutral representing 20% whiles twenty-four disagreed representing 8% and

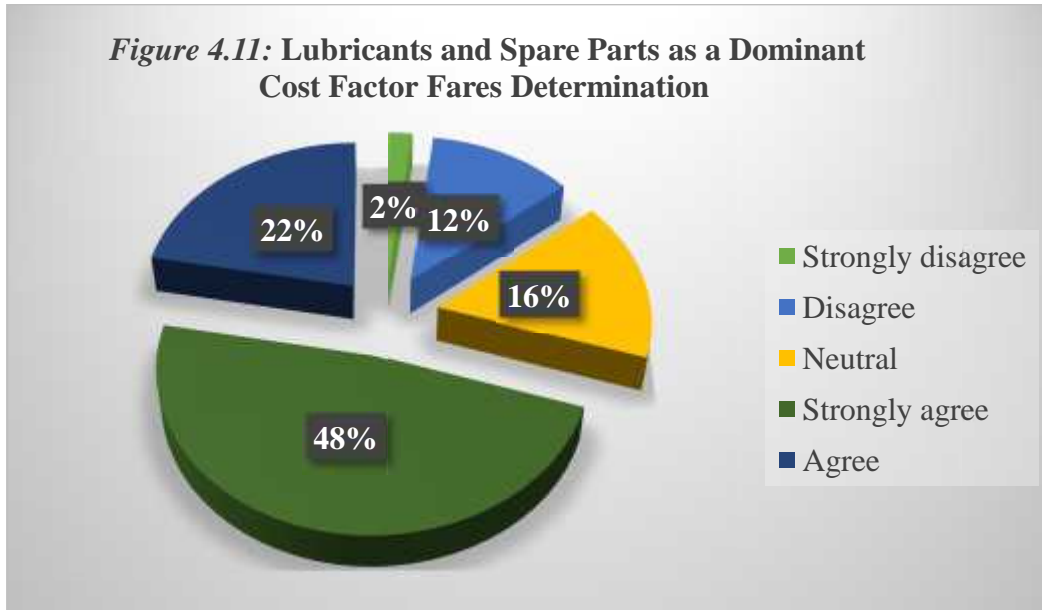
six strongly agreed with a percentage of 2. This is shown in the bar chart below. (Figure 4.10)



4.4.4 Lubricants and Spare Parts as a Dominant Cost Factor of Fares Determination

48% strongly agreed that lubricants and spare parts is the dominant cost factor in determining of fares for commercial transport with a frequency of one hundred and forty-four, while 22% strongly disagreed with respondents of sixty-six, also 16% interviewees were neutral with frequency of forty-eight, whereas thirty-six respondents representing 12% disagreed, and the remaining 2% strongly disagreed with a frequency of six. This is shown in the pie chart below.

Figure 4.11: Lubricants and Spare Parts as a Dominant Cost Factor Fares Determination



The study proves that fuel is the dominant factor in determining commercial transport fares representing 32%. A look at the other elements also signifies that fuel cannot be the sole determinant of transport fares. Even though fuel is a major element to consider but the aggregate of the other elements (Insurance premium - 22%, maintenance and repairs - 23% and Lubricant and spare parts - 23%) which is 68% indicates that the 32% for fuel should not be the sole determinant. This is illustrated in the pie chart and the table below.

Figure 4.12: Dominant Cost Factor in Running Commercial Transport Fares

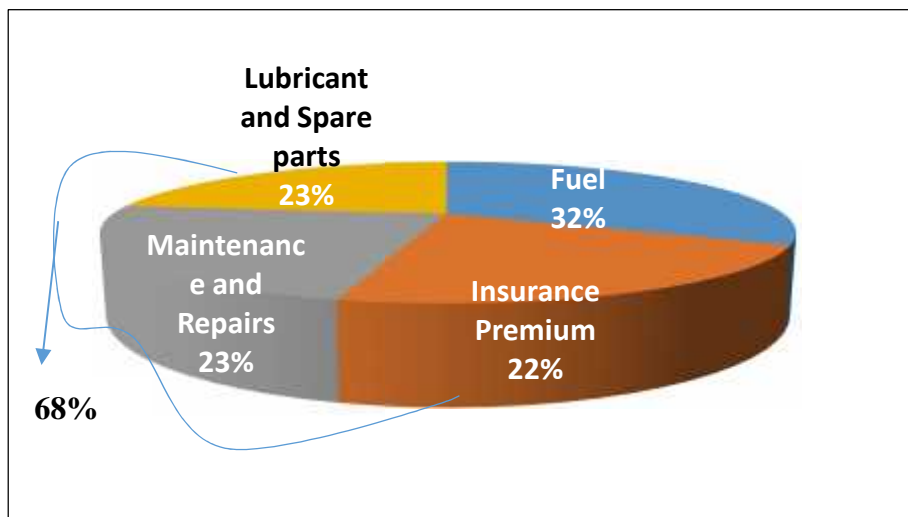


Table 4.5 Dominant Cost Factor in Running Commercial Transport Fares

Cost Element	Frequency	Percentage
Fuel	96	32
Insurance	66	22
Maintenance and Repairs	69	23
Lubricants and Spare Parts	69	23
	300	100

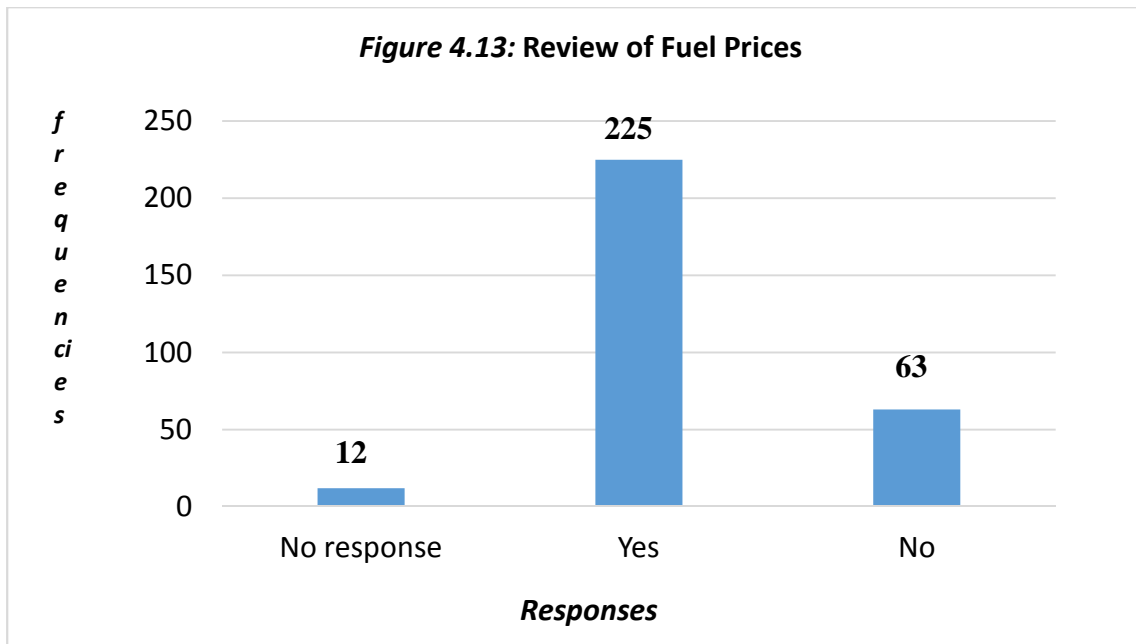
4.5 Review of Fuel

The table below shows that twelve respondents have no idea of the number of times been reviewed this year representing 4%. Also two hundred and twenty-five respondents forming the majority responded yes representing 75% while sixty-three answered no representing 21%. This signifies a frequent change in transport fares. This is illustrated in the table and figure below.

Table 4.6 Review of Fuel

	Frequency	Percentage
No response	12	4
Yes	225	75
No	63	21
Total	300	100

Source: Research Field, April 2015



4.5.1 Number of Times Fuel Prices have been Reviewed.

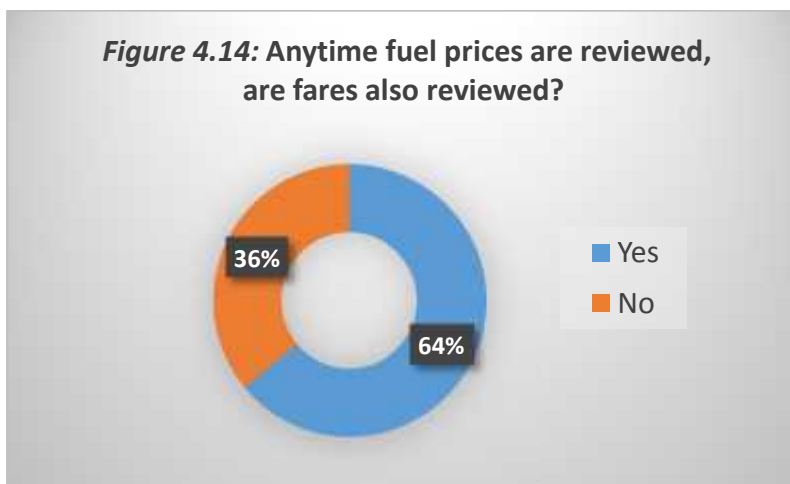
Out of the 300 respondents, 63 respondents representing 21% answered that fuel has been reviewed once this year, while 135 respondents answered it has been reviewed twice with a percentage of 45, also 75 respondents representing 25% responded review has been thrice and 27 answered review of fuel prices has occurred more than thrice with a percentage of 9. This is illustrated in *table 4.7 below*.

	Frequency	Percentage
Once	63	21
Twice	135	45
Thrice	75	25
More than thrice	27	9
Total	300	100

4.5.2 Anytime Fuel Prices Reviewed are Fares also Reviewed?

Response	Frequency	Percentage
Yes	192	64
No	108	36
Total	300	100

From table 4.8, 192 respondents representing 64% are of the view that fares are reviewed anytime fuel prices are reviewed. Whereas 108 respondents representing 36% are not of the view that fuel prices review leads to a corresponding fare price review. This is also illustrated in the figure below.

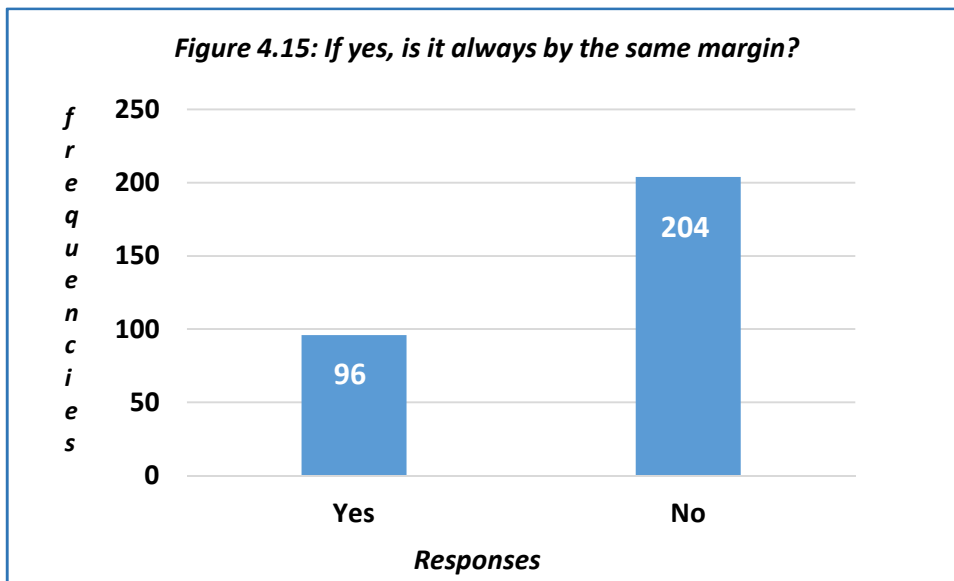


4.5.3 If yes, is it always by the same margin?

Per respondents response to the question, 32% representing 96 respondents indicates a lesser margin of fuel price review to fares review and 68% representing 204 respondents indicates a higher margin of fuel price review to fares review. This is illustrated in the *table 4.9* and *figure 4.15* below.

Table 4.9

Response	Frequency	Percentage
Yes	96	32
No	204	68
Total	300	100



4.5.4 Has there been a year where fares have been reviewed without review of fuel prices?

Table 4.10

Response	Frequency	Percentage
Yes	111	37
No	189	63
Total	300	100

From *table 4.10*, 37% representing 111 respondents indicates that indeed there has been a year where fares have been reviewed without review of fuel prices. Whereas 63%

representing 189 represents indicates that there has not been a year where fare has been reviewed without a review of fuel prices.



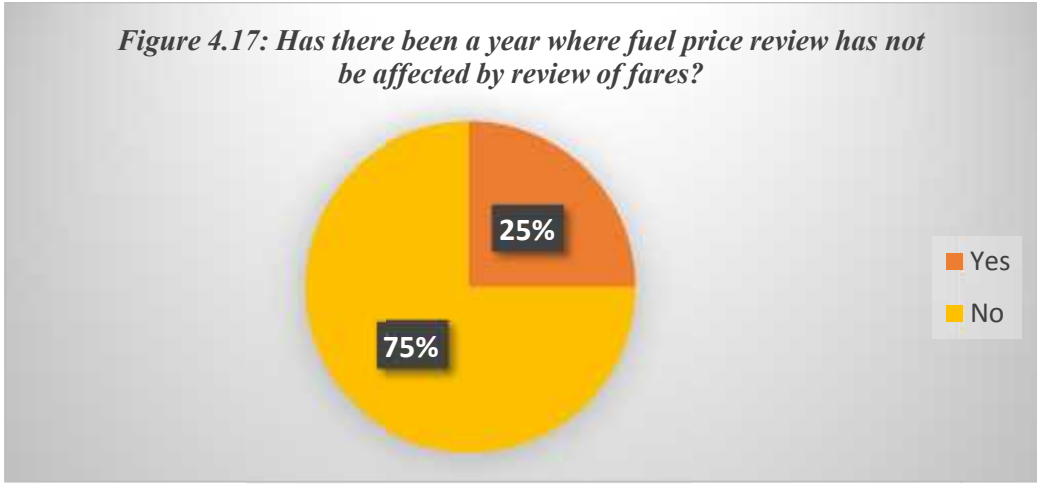
4.5.5 Has there been a year where fuel price review has not be affected by review of fares?

In table 4.11 and figure 4.17 below, 25% representing 75 respondents indicates that, there has been a year where fuel price review did not affect review of transport fares. On the other hand, the majority of 75% representing 225 respondents shows that there has not been a year where fuel price review did not affect the review of transport fares

Table 4.11

Response	Frequency	Percentage
Yes	75	25
No	225	75
Total	300	100

Figure 4.17: Has there been a year where fuel price review has not be affected by review of fares?



4.6 Examining The Challenges Associated With Frequent Price Fixation of Commercial Transport Fares.

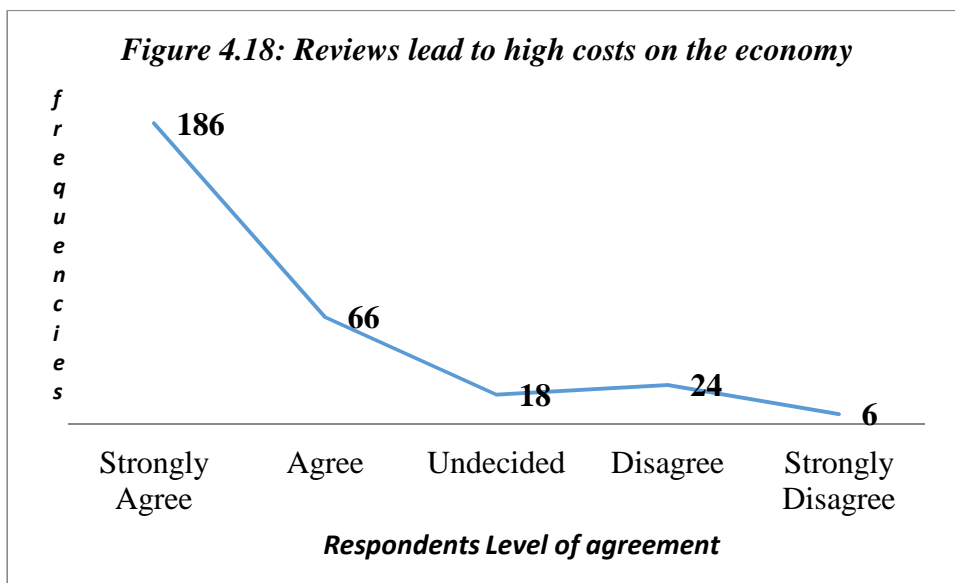
4.6.1 Review of fares leads to low income

To investigate if review of fuel prices lead to low income, 52% respondents with a frequency of one hundred and fifty-six strongly agreed that the review of fares for commercial transport lead to low income, whiles 20% agreed with a frequency of sixty, also 6% were undecided with respondents of eighteen, whereas 10% disagreed with a frequency of thirty and 12% strongly disagreed with respondents of thirty-six. This shows that there is decrease in the income of drivers when fares are reviewed. This is illustrated in *table 4.12* below.

Respondent level of agreement	Frequency	Percentage
Strongly Agree	156	52.0
Agree	60	20.0
Undecided	18	6.0
Disagree	30	10.0
Strongly Disagree	36	12.0
Total	300	100.0

4.6.2 Reviews lead to high costs on the economy

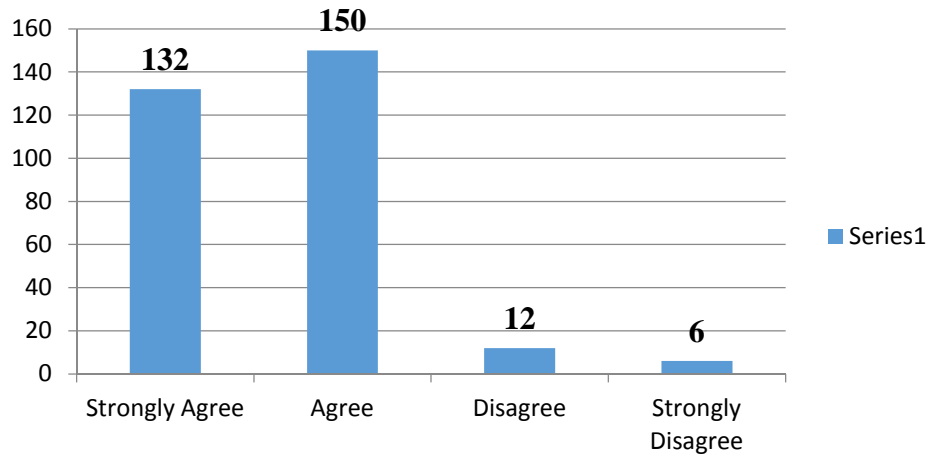
From the responses gathered, Six respondents strongly disagreed that high cost on the economy is not a result of the review of fares for commercial transport representing 2%, twenty-four disagreed with a percentage 8, also eighteen were undecided representing 6%, while sixty-six agreed with a percentage of 22 and one hundred and eighty-six which is the majority strongly agreed representing 62%. This explains that there is a possibility of high cost of living when fares are reviewed. This is demonstrated in the chart below.



4.6.3 Review of Fares lead to High Vehicle Operating Costs such as Spare Parts

This variable was analysed to reveal whether review of fares lead to high vehicle operating costs such as spare parts and lubricant. While 12 disagreed representing 4%, 132 strongly agree with a percentage of 44 while 6 respondents strongly disagree representing 2% and the majority of 150 respondents agreed representing 50% that review of fares leads high vehicle operating costs. This is portrayed in the chart below

Figure 4.19: Review of fares leads to High vehicle operating costs such as spare parts



CHAPTER FIVE

SUMMARY, FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

In Ghana, it is perceived by most people that the increase or decrease in prices of fares in commercial transport is basically based on the review of fuel prices. This has caused most commercial transport operators to increase their fares whenever there is a review of fuel prices. In order to meet the interest of all stakeholders of commercial transport fare determination, the researcher aimed at identifying the other cost elements that constituent commercial transport fares apart from fuel.

The researchers' purpose to this study was to determine the operating cost of commercial transport services in the Kumasi metropolis, Kejetia area. All operational cost (fuel, insurance premium, distance, maintenance and repairs, lubricant and spare parts) are determinant for charging commercial transport fares which serve as motivation for vehicle operators to remain in business. In Ghana, hardly does one hear of a reduction in transport fares when there is a reduction in the review of fuel prices.

It was on this premise that the researchers decided to research into how commercial vehicle operators in the Kejetia Metropolis are effectively cooperating with other stakeholders that is (passenger's, and drivers' union that is GPRTU, PROTIA, TUC etc.) when there is a review of fuel prices which is not the only determinant of change in transport fares.

The main objectives of the study is to determine the operating cost of commercial transport fares, to find out which cost element is the dominant factor among the operation cost of commercial transport fares.

The study was conducted using both primary and secondary sources of data. The researchers used descriptive research design because it best suited our work and could yield rich data for important recommendations. The data collection instruments used was questionnaires and face-face interview. Questionnaires were administered to a sample size of fifty (50) owner drivers within the Kumasi Metropolis that is Kejetia as the area of study. Data was coded using Statistical Package for the Social Sciences (SPSS) and analysed using tables, graphs, bar charts and pie charts. Summary of Findings, Conclusion and Recommendation for the research are provided below.

5.1 Summary of Findings

The key findings emanated from the studies were as follows:

-) It was identified through the research that the major cost elements for commercial transport includes fuel, insurance premium, others are maintenance and repairs, lubricant and spare parts. Out of the four cost elements constituting operating cost for commercial vehicle, fuel and lubricant and spare parts were the cost elements vehicle operators firstly consider when it comes to increasing commercial transport fares.

-) Out of the four cost elements, the dominant cost factor was fuel which carried the majority of the responses. Maintenance and repairs and lubricant and spare parts with the sum frequency of two hundred and ten, and the least of them been insurance premium with the frequency of one hundred and ninety-two. This implies that fuel is a dominant cost factor in determining the fares in commercial transport.

J With respect to the challenges confronting commercial transport fares determination, majority of the respondents accepted the fact that the review of fares leads to low income which affects their daily sales, leads to high costs on the economy while some respondents agree that review of fuel leads to high vehicle operating costs such as spare parts and lubricants.

5.2 Recommendation

In spite of the fact that, the study reveals fuel as the dominant cost factor in determining commercial transport fares, there are other cost elements which must be brought to the attention of commuters and the policy makers in commercial transport fares determination.

The interest of all stakeholders should be considered in commercial transport fares determination to arrive at a satisfied fares price for drivers, commuters and the policy makers.

This will help to dispute the fact commercial transport fares is always set to favor the government. Government needs to ensure that the cost of spares parts, tires, lubricants etc. are subsidised, which will involve examining existing taxes and import duties. By so doing operators can afford and purchase the quality products.

There is the need for operators of commercial transport to educate commuters about the other cost elements which constitute operating cost for commercial transport. This is to make the operators not to be seen as “fares rulers” when they are demanding for increase in fares when there is an increase in the other cost elements of commercial transport. There should be proper road maintenance by the government which will reduce accidents and high cost of maintenance and repairs by commercial transport operators.

5.3 Conclusion

Based on the findings and analysis of the study, it was gathered that there are other elements of cost (such as insurance premium, maintenance and repairs, lubricants and spare parts and distance) that constitute the review in prices of fares in commercial transport aside fuel which is perceived to be the major determinant of commercial transport fares and this is due to lack of education and awareness of both drivers and passengers. Policy makers on commercial transport should consider the interest of drivers and passengers in commercial transport fares determination.

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APPENDIX

QUESTIONNAIRE USED FOR THE STUDY

CHRISTIAN SERVICE UNIVERSITY COLLEGE

INTRODUCTION

[Please read the following introductory statement].

We are students from Christian Service University College (CSUC) and we are conducting a research on determining the operating costs of commercial transport fares in Ghana.

The research is for our final year project and will help us understand how operating costs of commercial transport fares are being determined. We also hope the relevant authorities will make use of our study recommendations to enhance how commercial transport fares are determined in Ghana. The replies given will be completely treated confidential.

DRIVERS WITH THEIR OWN VEHICLE QUESTIONNAIRE

SECTION A: PERSONAL INFORMATION

1. Gender

Male []

Female []

2. Age

a. 18 – 28 []

b. 29 - 39 []

c. 40 - 50 []

d. 51 – 60 []

e. 62 and above []

3. Level of Education

a. No Education background [] b. Primary [] c. JHS []

d. SHS [] e. Others (specify).....

4. Vehicle registration number.....

SECTION B: RESEARCH DATA

5. What is the type of your car?

- a. Mini-bus [] b. Taxi [] c. Van [] d. Others (Specify)

6. How long has your vehicle been in used?

- a. 1-5 months [] b. 6-11 months []
 c. 1-10 years [] d. More than 10 years []

Using 1- strongly disagree 2- disagree 3-neutral 4- strongly agree 5- agree, tick []

which cost elements is dominant in your operations.

	Cost element	1	2	3	4	5
7	Fuel					
8	Insurance Premium					
9	Maintenance and Repairs					
10	Lubricants and spare parts					

Which of the following elements of cost is influential factor in determining the fares of commercial transport? Please tick [] using 1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – strongly agree and 5 – agree

	Cost element	1	2	3	4	5
12	Fuel					
13	Insurance Premium					
14	Maintenance and Repairs					
15	Lubricants and Spare parts					

16. Has fuel prices been reviewed this year?

- a. Yes [] b. No []

17. If YES, how many times?

- a. Once [] b. Twice [] c. Thrice [] d. More than thrice []

18. Anytime fuel prices reviewed are fares also reviewed?

- a. Yes [] b. No []

19. If yes, is it always by the same margin?

- Yes [] b. No []

20. Has there been a year where fares have been reviewed without review of fuel prices of fuel prices?

- a. Yes [] b. No []

21. Has there been a year where fuel price review has not be affected by review of fares?

- a. Yes [] b. No []

Using Strongly Agree (1), Agree (2), Undecided (3), Disagree (4) and Strongly Disagree (5) answer the questions below in order to identify the challenges associated with price fixing for commercial transport service.

	Review of commercial transport services leads to.....	1	2	3	4	5
22	low income					
23	high costs on the economy					
24	high vehicle operating costs such as spare parts					

