

**KWAME NKRUMAH UNIVERSITY**

**OF**

**SCIENCE AND TECHNOLOGY**

**KUMASI**

**OVERRIDING THE FINANCIAL CHALLENGES OF STATE MASS**

**TRANSPORT COMPANIES IN GHANA:**

**A CASE STUDY OF METRO MASS TRANSIT COMPANY LIMITED**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT**

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**BY**

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## DECLARATION

This thesis is the result of research work conducted by **DOMINIC MENSAH (PG9613913)** of the Finance Programme in the Department of Accounting and Finance (School of Business), Kwame Nkrumah University of Science and Technology, under the supervision of Gideon Boako PhD.

I further certify that this thesis has not been submitted in any form to this University or elsewhere for the award of a degree or diploma. Other works which served as sources of information have been duly acknowledged by reference to the authors.

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## **DEDICATION**

This work is dedicated to the Almighty God for His grace.

I also dedicate it in honour of my dear wife Mrs. Barbara Nyanah Mensah and daughter Kukua Nhyira Nyanah Mensah not forgetting my late father, John Ben Mensah and my mother, Agnes Ekulfi for the numerous sacrifices they made for me to reach this stage in life. Their encouragements and prayers have never been in vain. My success is yours and the crown is also for you. May God richly bless and keep you, Dad and Mum wherever you are.

## **ABSTRACT**

In Ghana, many transport companies have collapsed; among them are City Express Services (CES), Omnibus Service Authority (OSA), Kingdom Transport, Opoku Transport and the near collapse of State Transport Corporation (STC). The public transport sector of Ghana is on the verge of collapse, largely due to mismanagement, unproductive attitudes of employees and ticket racketeering

This study identifies the various solutions that can override the numerous financial challenges facing Metro Mass Transit Co. Ltd. The objective is to examine the management practices, its effectiveness and effects on the performance of Metro Mass Transit Co. Ltd.

In order to achieve the objectives of the study both primary and secondary data were obtained to assess the financial performance and identify the enormous challenges facing the company. Data collection instruments used were questionnaires and audited annual financial reports of Metro Mass Transit Limited for the period 2009 to 2013. The collated primary data was processed and analysed using the Statistical Software Programme for Social Sciences (SPSS version 17), whereas the secondary data with regards to the performance and management financing decisions or practices was analysed using Microsoft-Excel version 2010. Financial ratios were employed as tools for measuring the performance of MMT and to determine their financing decisions from 2009 to 2013.

The result of the study showed that performance of MMT has been abysmal over the years and most of the financial management practices or decisions have had a negative impact on the profitability of the company. Staffs of the company are also distraught about their conditions of service. MMT Ltd has long and positive cash

conversion cycle implying that it takes the company longer days to convert its inventory into cash to pay its suppliers for goods and services thus suppliers are paid through external financing such as overdraft. The liquidity ratios were too high which suggest inefficient use of short-term financing facilities. The company is also highly leveraged though the leverage level of 4.36 in 2009 has reduced to 1.24 in 2013; this has affected profitability negatively as Operating profit Margin also reduced from 20.25% in 2009 to 2.92% in 2013.

The study recommends that management of MMT must improve on their working capital management and also reduce their operational cost to remain competitive in the transport industry.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Transportation has key impact in the advancement of a nation. The economic and social development of a country is dependent on its transportation system. The development and advancement of any economy to a great extent relies on the productive and viable development of individuals, merchandise and administrations and henceforth the part of a proficient transport towards this goal couldn't be made light of, (Ofori-Dwumfuo and Dankwa, 2011). Mass transport in developing nations is imperative for the urban poor who need to depend on strolling, cycling, and road based public transport to meet a large portion of their travel needs. Therefore, it is inconceivable how a country could trifle with it without causing harm to the development of the country. Road transport dominates all other forms of transport for both freight and passengers in Ghana. Most of the populace who use road use public transport. Yet, the records of mass bus transport in Ghana have not been a pleasant one.

Hensher, and Greene, (2002), expressed that mass transport keeps on being a high priority social commitment of governments all over the world and, in a few purviews, it is the prime obligation of national governments, while in different areas, it is a state or local government obligation. In Ghana, the present transportation framework began as far back as 1898 when the first rail line was built from Takoradi to Tarkwa for business utilization of gold, and the first road made between Accra harbour (as of now Jamestown) and Dodowa to Larteh in 1905 for the export of palm organic products

(Wilson, 2014). The Accra Town Council operated transport services in Accra, Kumasi, Sekondi-Takoradi and Obuasi in 1927. The government of Ghana throughout the years have built up transport services organizations, for example, the City Express Services (CES), Omnibus Service Authority (OSA), State Transport Corporation (STC) and, and as of late Metro Mass Transit Ltd. (MMT) for different reasons including government social commitments, ecological components, energy concerns and the advancement of proficient and effective public transportation to improve productivity and economic development (Department of Urban Road, 2005).

Alongside the formal sector, is the informal sector which has operated and continue to function as transport administrator in the country. The most outstanding among the informal sector transport administrators in the 1980s was King of Kings Ltd. The organization's operations collapsed in the late 1980's because they couldn't survive the difficult and tough environmental conditions of the transport business (Ofori-Dwumfuo and Dankwah, 2011). Certainly, if an assessment is made of the actions of proprietor driver and other private transport administrators in the informal sector, there would be more disappointment stories than successful ones. Moreover, transport operators, for example, CES, OSA and STC in the formal part have not fared well either, and this required the government to sale CES and STC and liquidated OSA in the 1990s. The concerns raised by the general population over the sort of public transport services being provided has gotten to a serious level as the years gone by.

The systematic corruption that pervaded the Omnibus Services Authority (OSA) led to its collapse in the 1980s. Similarly, City Express Services (CES) was embattled with corruption, which led to its demise. The government of Ghana, undaunted by

these challenges, proceeded to establish the Metro Mass Transit Company Ltd., which though infested with many hindrances similar to those of the erstwhile transport companies, has survived up-to-date. The Metro Mass Transit Co. Ltd. (MMT) was established to provide efficient urban mass transport system in the country. Subsequent to its inception, MMT has contributed immensely to the transport industry in the country. Its contribution to the transport needs of urban and rural dwellers at reasonable fares, is satisfactory, thus making it possible for many people to get to the various markets centres with their goods and services. MMT bus services has been very helpful to workers who, for one reason or the other are unable to acquire accommodation at their duty stations by commuting them daily to and from work, while school children in uniform who, previously did not have any access to education are now able to attend distant schools due to MMT bus services.

Notwithstanding these achievements, the company's operations give avenue for one to question the effectiveness and seriousness with which it is being managed. This also suggest to us of an imminent down slide like its predecessors, with the possibility of threatening the employment of a considerable work force, curtailing the growth of the transport industry in the country, and making travel and transport cost more expensive for most people in Ghana. In the midst of all these challenges, MMT as a business can be seen to have an enormous arena of opportunities in the transport sector that could be exploited to transform it into a highly competitive and dynamic industry. The company could capture a large market size that would make it a crucial determinant and stabilizer of transport fares in Ghana. These could be achieved through imploring radical measures to deal with the existing bottlenecks that tend to frustrate the efforts of the company. There must be regular external auditing of the

activities of the company to forestall the financial improprieties that have bedevilled state-owned transport businesses for some time now. It is against this backdrop that the current study looks to examine the financial challenges of the Metro Mass Transit Company Limited and overriding them.

## **1.2 Problem of the Study**

The public transport sector of Ghana is on the verge of collapse, largely due to mismanagement, unproductive attitudes of employees and ticket racketeering. Until now, the country had boasted of a very active public transport system that served all parts of the country. State Transport Corporation (STC) and other transport companies served commuters in both cities and rural communities. CES, OSA and STC collapsed largely because of malpractices which undermined the revenue generation of the companies.

The Metro Mass Transit Co. Ltd. (MMT) that filled the vacuum, albeit with a lot of challenges is also on the verge of collapse. In a meeting with bus inspectors of the company at Kumasi, the Managing Director of MMT, painted a picture of gloom and doom in 2014. The company generated revenue of GH¢14million in 2012 which fell to GH¢9million in 2013 irrespective of the increase in the fleet of buses from 846 to 1046. The collapse of the public transport sector could increase cost of the rate of movement of goods and people and hence affect commercial activities in the country. Such effect could reduce the economic growth of the country. It is against this backdrop that the current study looks to examine the financial challenges of State Mass Transport Companies in Ghana.

### **1.3 Objective of the Study**

The general aim of the study is to examine the measures that can be employed to override the overwhelming challenges of the operation of the state mass transport system in Ghana. Furthermore, the study specifically seeks to:

1. Examine the performance of the Metro-Mass Transit Limited;
2. Discuss the management practices of the Metro Mass Transit Limited;
3. Determine the effectiveness of the management practices of MMT Limited and examine its effect on financial performance of the company.

### **1.4 Research Questions**

Based on the direction and emphasis of the study, numerous critical questions are required to be answered. These critical questions include:

1. Has financial performance of the Metro-Mass Transit Limited improved over the years?
2. What management practices are implemented at the Metro-Mass Transit Limited?
3. How effective has the management practices of the MMT Limited been over the years?

### **1.5 Significance of the Study**

According to Poku-Boansi (2008), commuters view quality transport services by looking at the affordability of fares, better frequency of transport services, short travel time and enhanced wellbeing measures. This infers that vehicle administrators including state-owned companies need to give services which address these needs and additionally in an economically and effective way. These require the best possible

administration of operating cost, income, and having the required vehicle fleet. Therefore, the result of this study could be of immense significance to stakeholders in the transportation industry including the government, policy makers, passengers, and the managers of transport companies. The government and the management of public transport companies could rely on the findings to design effective and efficient management practices including efficient internal control systems and financial policies to ensure greater performance. Proper measures could also be put in place to arrest some of the factors causing the collapse of many state-owned mass transport companies in Ghana. Policy makers could also rely on the result of the study to provide measures to override the challenges of the State Mass Transport companies in Ghana.

The study would add to the body of knowledge that has been based on operation of efficient transportation companies and will serve as a base for academia and other people who want to conduct similar or further studies in the area of the challenges of the state-owned transport companies. This work, therefore, would add to the understanding of the various challenges of the Metro Mass Transit Company Limited and the general State Mass Transport in Ghana. It is expected that the study would serve as an input to policy formulation by the government and its regulatory and supervisory bodies such as Ministry of Road and Transport of Ghana in formulating policies to facilitate, promote and develop the transport sector.

### **1.6 Scope of the Study**

The study is confined to thematic areas including the performance of the Metro-Mass Transit Limited, discuss the management practices and determine the effectiveness of the management practices of the Metro-Mass Transit Limited; and also examine the

effect of the management practices on the financial performance of Metro Mass Transit Limited. The study was further limited to the managers, conductors and drivers of the Metro Mass Transit Limited.

### **1.7 Limitation of the Study**

Despite the valuable discoveries of this study, this empirical study has a few constraints to be recognized. In the first place, the discoveries of this study rely upon the trustworthiness of the respondents and the financial reports obtained. It is realized that people would concur more on socially desirable answers and differ more towards socially undesirable answers as opposed to completely and genuinely express their inclination and opinions. Next, the limitation of this research is that the data of this study is gathered through the survey, so there is a high probability of incorrect information. In addition, the little sample size restricts the dependability and the generalization capacity of the study. Furthermore, as a subjective study, the focus of the study is not for generalization, but rather on particularization which gives top to bottom understanding of the financial challenges of the State Mass Transport companies in Ghana.

### **1.8 Overview of the research methodology**

The current study adopts a mixed approach. The study employs both qualitative and quantitative forms of data to achieve its objectives. The study is intended to collect and analyze data from the managers, conductors and drivers of the Metro Mass Transit Company Limited, to answer questions, which are geared towards investigating into the challenges of State Mass Transport companies in Ghana. The target population were 22 Managers, 875 Conductors and 987 Drivers of the Metro

Mass Transit Company Limited of which 330 will be sampled. The 330 sample size constituted 12 managers, 130 Conductors and 188 Drivers. A multistage sampling procedure involving stratified, quota and simple random sampling procedures were employed to sample the 12 managers, 130 conductors and 188 drivers for the study. The data collection instruments used for this work was Questionnaire. Data obtained from respondents were presented pictographically, and analyzed both quantitatively and qualitatively. The relationship between the management practices of the Metro Mass Transit Company Limited and performance were analyzed using multiple regression. The management practices of the Metro Mass Transit Company Limited was analyzed using the Relative Importance Index (RII) and financial indicators (ratios).

### **1.9 Organization of the Study**

The thesis is divided into five Chapters. Chapter one gives an introduction and background information about the area of study. This chapter also presents the research problem, aims and objectives, significance and limitations of the study. Chapter two mainly explores various literatures related to the challenges of State Mass Transport. In Chapter Three, the methodologies that were used are highlighted. The chapter also explains why specific methodologies were chosen for this research. Besides outlining some of the methodologies used in this research, the chapter also presents the research design and data capture methods used in this research. The Chapter Four of the study deal with data analysis, result presentation and interpretation from both a qualitative and a quantitative point of view. Finally, chapter five discusses the results of the study. This chapter also outlines some conclusions and recommendations made during the research process.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter begins with in-depth review of the concept of transportation and the various characteristics of the bus transport industry in Ghana. The chapter further reviews literatures on thematic areas such as the state intervention in public transportation, the mass transit system, the management of urban transportation in Ghana and the internal control mechanism needed to make operation of the bus transit companies effective and efficient. The last section of the chapter reviews empirical literatures related to the financial policies and challenges of the public transport sector in Ghana and the conceptual framework of the study.

#### **2.1 The Concept of Transportation**

The concept of transportation defies any single watertight definition. Schulz (2004) asserted that transportation in the widest sense includes conveyance of freight and mobility of persons, flow of labour and capital, and the activity of providing access to resources and opportunities. This definition broadens the scope to encapsulate even non-motorized systems, such as walking, cycling and animal drawn cart. The opinion expressed by Mbara (2002:3), is that transportation is a system consisting of two major components precisely; the vehicle commonly called “carrying unit” and the path which in transport term referred to as the “way”. In view of this, transport consists of an “infrastructure component” and a “service component”. The service part constitutes the carrying unit, such as bus, aircraft, train and ship, while the infrastructure part represents the roadway. Skilled personnel are needed in other for

transport system to operate efficiently. Mbara (2002: 3) therefore argued for “appropriate qualified staff as a vital third component of the transport system”.

Sundeen and Reed (2006), Aworemiet al. (2009) and Litman (2012) corroborate that local governments are also significantly involved in the provision, management and regulation of public transportation. According to Sundeen and Reed (2006), local government participation in addressing transportation priorities is increasingly important. During the last decade, substantial financial burden for surface transportation projects has fallen on state and local governments (Sundeen & Reed, 2006; Litman, 2012). Sundeen and Reeds (2006) argued that local governments, in at least 34 states examined, are responsible for administering vehicle license and registration taxes in the United States.

Sundeen and Reed (2006) and Huerta (2012) have investigated public transit funding obstacles in United States. Sundeen and Reed (2006) avow that, notwithstanding the positive impacts of transportation to the American economy, state lawmakers are faced with serious hurdles to access adequate funds to meet rising transport needs. The study emphasized that “Within state government, individual lawmakers may be unwilling to support funding mechanisms that could be unpopular with constituents” or those that they perceive would directly benefit very few of their constituents (Sundeen& Reed, 2006:21).

Deakin and Harvey (1996), in a more subtle way, discussed government’s role as regulator of prices by focusing on the effectiveness of five categories of transportation pricing measures. These categories include: congestion pricing, parking charges, Vehicle Mile Travel fees, fuel tax increases and emission fees. Deakin and Harvey

(1996) argued further that governments implement such pricing measures to achieve economic, environmental and energy objectives. The study concluded that properly designed and implemented transportation pricing measures could effectively reduce congestion, pollutant emission, energy consumption, and at the same time generates revenue (Deakin & Harvey, 1996: ix).

## **2.2 Characteristics of the Bus Transport Industry in Ghana**

The discussion of the characteristics of the bus transit business in Ghana, is grounded on many factors such as legal basis for jurisdiction, form of transport mix operated, service providers and consumer demand features.

### **2.2.1 Legal basis for Jurisdiction**

According to the Local Government Act (No.462 of 1993), road commuter transport is a regionalized obligation of the Metropolitan, Municipal and District Assemblies (MMDAs) of Ghana. All the urban passenger transport services were merged into Omnibus Services Authority in accordance with Omnibus Services Authority Decree (NLCD 337) in 1969. This legislation was replaced by Omnibus Services Decree (NRCD 71) in 1972, however, Omnibus Services Authority maintained with the only objective of providing bus services in some identified areas. This organization was later transformed into OSA Transport Ltd. under the law that covers commercialization of parastatal enterprises. The controlling or regulatory authority granted to Omnibus Services Authority was transferred to a new Licensing Authority which will be responsible for issuing license to all motor vehicles intended for use as omnibuses within specified areas.

The Licensing Authority decided, among others: routes and parking spots of vehicles owned by public or private associations or individuals; fares to be paid by travellers on such transports; and types of vehicles to work on specific routes in any specified spot or place.

### **2.2.2 Type of Operated Transport Service Mix**

There are four levels of services operated by bus transport service mix; these includes urban with intracity or intercity service, express service, rural-urban and rural services. Presently an operation in each segment is optional to the operating service. There was no consideration to the needs of the market concerning extra permit or negative effects of oversupplying in the sector.

### **2.2.3 Service Providers**

The service providers in the bus transport industry consist of public transport companies and private bus operators. The public transport companies have government being the majority shareholder with dominant influence and subsidized fares. Currently the only public bus company is the Metro Mass Transit Company Limited. The private sector is made up of individual transport operators regulated mostly by transport unions who charge different fees for the utilization of transport terminals, set fares, designate routes and complete self-regulatory on their operations, paying little attention to transport needs and effectiveness. It is estimated that, there are more than seventy transport unions in Ghana but the largest is Ghana Private Road Transport Union (GPRTU). There are also free floating private transport operators who do not subject to operational rules by any union. An overview of the

characteristics of bus transport service provision is provided in the immediate subsections.

**1. Bus Ownership and Management:** The two main forms of bus ownership in Ghana are private and public ownership. Metro Mass Transit Company Limited (MMT) was incorporated by the government of Ghana and other institutions to function as mass transportation services provider in March, 2003 under the Companies Code 1963, Act 179. Ghana government has 45percent shares, 2.5percent shares in Treasury and the remaining 52.5percent shares are controlled by other corporate institutions i.e. private investors. These institutions are State Insurance Company (SIC), National Investment Bank (NIB), Ghana Oil Company limited (GOIL), Agricultural Development Bank (ADB), Prudential Bank Limited (PBL) and Social Security and National Insurance Trust (SSNIT). Most of the buses have sole ownership especially those operating as intra-city service and only small number who operate as intercity services such as VIP, OA and others have larger fleet sizes with independent management policies. In the first scenario, vehicle owner is a semi-passive investor with no direct involvement in its day-to-day operation. Generally commitment to the industry is not strong and operators may withdraw from it when faced with major problem.

**2. Bus Purchase and Finance:** The fleet currently owned by Metro Mass Transit Ltd has been acquired through donor grants, concessional funding and government funding with no terms of payment but as Government subsidies to the operation of the company (Yobo, 2013). A large number of the private buses are imported second-hand vehicles due to the inability to afford new vehicles. Other sources are from

leasing facilities from banks and insurance companies at stipulated commercial rates or special arrangements through government initiatives with high default rates. Only a few operators use these facilities.

PPP options in the transport sector: Public Private Partnership for (PPP) for transport infrastructure and service development is an arrangement “whereby the private sector provides infrastructure assets and services that traditionally have been provided by government. The purpose is to ease the financial burden of the public sector and also tap into the competences of the private sector in terms of efficient management.

A draft policy framework has been prepared and some advisory institutions have been established for the market based model. Currently, there are a number of PPP options under consideration. The major constraints include: (1) High commercial risks given the low effective demand; (2) Limited knowledge about best practice and scaling up; and (3) Lack of business experience of traditional entrepreneurs.

**3. Facilities and Equipment:** The Metro Mass Transit Ltd has a headquarters with basic requisites for the operation of a fleet of large urban buses such as a large parking area, a covered workshops building, and a suite of offices and other operational buildings as well as operational depots spread in different parts of the country. Facilities for the informal sector are however, generally limited in terms of bus terminals, parking spaces, workshops etc.

**4. Operational Practices:** The MMT operates on defined routes with scheduled services for the inter-city transport but unscheduled services for intra-city transport. The informal sector has a wide range of operating practices. Emphasis is on short-term cashflow for the owner based on daily hire rates that leave little margin for the

driver after meeting his unavoidable costs. This leads to deferral of repair expenditure on the vehicle and avoidance of preventive maintenance. Operating procedures are designed to maximize their own returns rather than prioritize customer needs.

### **2.3 Road Transport**

Road transportation is very essential to the Ghanaian economy. Road transport accounts for approximately 98% of freight and 95% of passenger traffic carriage. About 4.75 million passengers are moved annually by road in Ghana by about 1,300,000 Vehicle fleet (Yobo, 2013). Trip purpose by bus varies between work, health, educational, leisure and social related travel and average passenger spends 17 to 25 percent of their income on transport. Bus Transport Service: Passenger buses constitute about 60% and there are about 18 buses per every 1000 people (Yobo, 2013). Road transport in Ghana may be categorized into 4 main segments, namely urban, express services, rural-urban and rural. The demand for urban passenger transport is mainly by residents commuting to work, school, and other economic, social and leisure activities. Most urban transportation in Ghana is by road and provided by private transport including taxis, mini-buses and state/private-supported bus services. By road transport buses are the main mode of transport accounting for about 60% of passenger movement. Taxis account for only 14.5% with the remaining accounted for by private cars. The cost of road construction and maintenance is the sole responsibility of the government whereas the task of implementation is borne by private contractors. Major opportunities in the sector are in the form of contracts between the Ministry of Road and Transport and local and international engineering firms via competitive bidding. In the case of emergency contracts, selective tendering is employed. The major challenges in the industry include poor/ lack of market

regulation, over supply of low capacity mini buses, excessive use of second hand vehicles and poor service quality.

### **2.3.1 Performance of the Public Transport Sector**

The transport sector's growth and performance have continued to improve in recent years due to both government efforts and private sector investment in road rehabilitation and improvement in marine and air transport services. The transport sector is estimated to have grown by 7.0% in 2009 compared to 8.9% in 2008 (Ofori-Dwumfuo and Dankwah, 2011). The road transport is the predominant mode of transport in Ghana, accounting for 94% of freight and 97% of passenger traffic movements. Ghana's road construction boom followed the country's independence in 1957. The roads network at that time, though significant, was not well maintained. It began to deteriorate in the 1970s until the commencement of the structural adjustment programme in 1983 (Department of Urban Road, 2004). By the 1990's, Ghana had experienced much improvement in its road networks that has led to its emergence as a hub linking the entire West African trading zone. The privatization of many of Ghana's transport and logistics enterprises has also led to greater efficiency in these areas.

It is estimated that Ghana has today about 67,291 km of road network (Department of Urban Road, 2004). Of this, 12,785 km are trunk roads, 42,394 km are feeder roads and 12,112 km are urban roads. 83% of trunk roads, 36% of urban roads and 72% of feeder roads are considered being in either good or fair condition (Department of Urban Road, 2004). The network size, which only 17% is paved, grows at an average of 8% per year. Construction and maintenance of roads lie with the Ministry of Roads

and Highways through the Ghana Highway Authority (GHA), the Department of Urban Roads and Department of Feeder Roads. The main sources of financing road development and maintenance are the Road Fund, the Consolidated Fund and development partners. The total cost of road infrastructure in 2008 was US\$ 546 million. The rapid growth of vehicles in recent years is a key contributor to congestion, especially in urban areas. The total vehicle population in Ghana has been growing steadily since 2004. As at July, 2009, the total registered vehicles had risen to 1,096,391 (Ofori-Dwumfuo and Dankwah, 2011).

### **2.3.2 Administration of Ghana's Road Transport System**

Ghana's road transportation system is currently administered by two different ministries namely, the Ministry of Transport (MoT) and the Ministry of Roads and Highways (MRH). Whereas the MoT is responsible for the provision and regulation of transport services, the MRH oversees the development of transport infrastructure. Hitherto, these two separate but related ministries were organized under a single ministry – the Ministry of Roads and Transport. The Government of Ghana, through MRH, exercises oversight responsibility over the construction and maintenance of all road transport infrastructure. As a way of policy, 90% of all available road works are executed by the private sector through contracting. The MRH, however, retains the remaining 10% using direct labour by the designated government agencies to execute road works. These agencies – Department of Urban Roads, Department of Feeder Roads and the Ghana Highways Authority – are responsible for different categories of road construction, maintenance and designs. The focus of the nation's public spending on transport infrastructure is on road construction yet with limited pedestrian facilities. The government gives less investment priority to pedestrians and cycling

facilities thus exposing pedestrians and cyclists to much traffic carnage (Kwakye et al., 1997; Kwakye and Fouracre, 1998).

### **2.3.3 Internal Control System**

One of the best protections against business failure, and additionally a critical driver of business performance, is having a compelling internal control framework, which manages risks and empowers the creation and conservation of worth. Successful businesses know how to exploit opportunities and counter dangers, in numerous occasions through effective utilization of controls, and accordingly enhance their performance. Internal control is an indispensable part of an organisation's administration framework and capacity to manage risks, which is understood, affected, and effectively checked by the regulatory body, management, and other work force to exploit the opportunities and to counter the threats to accomplish the organisation's objectives. Internal control systems that have been affirmed to have an association with business organisations' financial performance include: organisation, division of duties, physical approval and authorisation, arithmetical and bookkeeping, personnel, supervision, administration, affirmation of performance, planning and budgeting.

Indeed, even a generally little business can implement certain internal controls that are exceptionally effective. To have a competitive edge over other organizations, business entities continually perform assessment of their internal control systems. Along these lines, the basis of superior enterprise financial performance is more grounded, dependable and an up to date controls systems. On this basis, the MMT and many other public transport companies in Ghana need to employ reliable internal control system to safeguard greater financial performance.

As stated by COSO (1992), internal control system has three elementary objectives: (1) viability and effectiveness of operations; (2) unwavering quality of financial reporting; furthermore (3) agreeability with appropriate laws and regulations. COSO identifies crucial segments from effective internal control framework as: control environment, risk assessment, control activities, methods which enable management targets to be attained and risk mitigation methodologies implemented, communication, and monitoring. These components must be available and working successfully in other for internal control framework to accomplish organization's targets.

Internal control systems function at various levels of effectiveness. To achieve this, the state bus transit companies including MMT are required to give great emphasis to some critical elements of internal control mechanisms. In deciding whether a specific internal control system will be successful depends on the assessment of these five parts - Control Environment, Assessment of Risk, Control Activities, Communication and information. Successful controls give acceptable assurance concerning the achievement of stated goal. For the reason regarding this study, I will limit the various parts of ICS to three; control environment, control activities and observation of the controls. Control environments, as created by the organization's administration, set the tone of an institution and influences or impacts the control consciousness of individuals. Attitude of management ought to be dedicated to ethical business practices and should abide by the established internal control methods. This is the basis for other components of internal control, giving discipline and structure. Control environmental factors are: integrity and moral values; the attitude towards

competence; leadership philosophy and style; and how management assigns power and responsibility, organizes and develops its staffs.

Control activities are the regulations and procedures that help to enable management instructions are implemented. They assist in guaranteeing that important actions are made to address risks to accomplishment of the organization's goal. Control activities as a policy has two components: a policy building up what ought to be done and strategies to implement the policy. Implementation of all policies must be done attentively, conscientiously and reliably consistent. Internal control systems should be observed - a procedure that evaluates the quality of the system's achievement after its implementation. Continuous monitoring happens in the standard course of operations, and incorporates normal administration and supervisory activities, and different methods the staffs used in performing their obligations that evaluate the quality of performance of the internal control framework. The way controls are implemented may change once effective techniques turn out to be less effective because of the entry of new work force, varying adequacy of training and supervision, time and assets constraints, or extra pressures. Moreover, circumstances for which the internal control framework was initially designed may also change. Due to evolving conditions, management needs to figure out if the internal control framework will still be applicable and able to address new risks.

#### **2.4 The Mass Transit System**

Mass transit, which is also called public travel or public transportation is a mutual commuter transportation services which is accessible for utilization by the overall populates as different from the saloon cars and sport utility vehicles (SUVs) utilized by the people. Public travel modes incorporate buses, trams and trains. Most public

transit worked by schedule time tables. Urban public travel may be given by a travel power or by one or more private transport administrators. Public travel administrations are normally supported by fares charged to every traveller. By and large, services are managed and in some cases sponsored by government. Mass transit can also be referred to as “the movement of people within urban areas using group travel technologies such as buses and trains” (Yobo, 2013). It is portrayed by the way that numerous individuals are conveyed in the same vehicle, for example, buses or trains, making it efficient to utilize.

## **2.5 Mass Transit System in Ghana**

Public transport administrations have worked in Ghana since the Omnibus Service Authority (OSA) began its operation in 1927. The OSA contributed a great deal to Ghanaian economy through the provision of transport administration to travellers to fulfill their travelling needs. However the properties of the authority were divested in 1995. From that point forward, public mass transport has not been sufficiently viable to meet the travelling needs of travellers in Ghana until 2003. In 2003, the legislature of the Republic of Ghana reintroduced public mass travel system in the metropolitan and municipal areas to guarantee safe, moderate, effective and dependable transport trying to meet the expanding travelling needs of abounding travellers in Ghana. Along these lines, the Metro Mass Transit Limited (MMT) was incorporated in 2003 with the state insurance corporation, National Investment Bank, Ghana Oil Company Ltd, Agriculture Development Bank, Prudential Bank and Social Security and National Insurance Trust (SSNIT) as partners owning 55% shareholding whilst the government of Ghana possesses the remaining 45% shares. According to its mandate, MMT was to concentrate on the provision of transport administration to workers on the short and

medium distances i.e., intra-city transport. However by its present operation, MMT appears to have moved from its core operation of giving intra-city transport services to long distances between city and metropolitan transport services. As indicated by the Department of Urban Roads Report (2004), mass travel administrations in Kumasi city is deficient and has affected the overwhelming utilization of private cars, taxicabs and smaller transports (trotro) as the medium of transport for passengers in Kumasi city.

## **2.6 State Intervention in Public Transportation**

In their State Intervention in Contemporary Transport, Docherty et al.(2004) attempt to explain why states seem to have adopted interventionist stances in public service delivery, especially transportation, in recent years. The study, inter alia, argued; “state involvement in transport has always been one of addressing market failures” (Docherty et al., 2004:258). It is also not uncommon for public transport operators, whether publicly or privately owned, to find their operations in financial crisis and resort to government for bail out (AFD & MEEDDM, 2009). Docherty et al. (2004) argued further that government intervention in public transportation is justified by the high fixed cost of developing transport infrastructure. The provision and maintenance of most transport infrastructures – such as highways, railroads, ports and terminals – are capital intensive, which the private sector is unlikely to finance or may be totally disinterested in its development (Docherty et al., 2004). The Public sector usually accepts such challenge and responsibility as part of its solemn obligation to deliver public services to its citizenry. Likewise, such state intervention in transport provision avoids ‘wasteful competition’ and unnecessary duplication of assets – such as “separately owned, parallel railway lines” (Docherty et al., 2004:529).

Apart from the economic and social arguments, environmental objectives impress on governments to support public transport systems that are environmentally sustainable. Greenhouse gas outflows from engines of vehicles constitute the highest extent of transport related pollutions (IEA, 2005). The works of Marsden and Rye (2010) corroborate with Docherty et al.(2004) that, the case for state intervention in transport market has become much potent in the wake of worldwide call to address transport related emission and pollution. The power of this argument was reflected in the words of Cervero (2011:4); public mass transport is “the most efficient user of road space and energy resources and thus reduces emissions of pollutants and highway congestion especially if mass transit users are former single-occupant motorists”. AFD & MEEDDM (2009:3) advocates for public support for transport system which is “both energy-saving and low in greenhouse gas emissions, while being widely accessible and occupying little space”.

## **2.7 Challenges of the Public Transport Sector in Ghana**

The most difficulties in public transportation administration are varied and most of them are seen in Third World nations, for example, Ghana which is encountering quick demographic and economic development, since effective development is connected to enhanced mobility of individuals (Wilson, 2006). The first importance of state-owned transport organizations in Ghana is most likely due to the abundance of small vehicles (16 seaters) in passenger administrations and the strength of this type of public transport in the general transport circles. Connected with this are issues, for example, vehicle support, between affiliation competition, industry maintainability and the armada age profile. Public transport in third world nations is likewise for the

most part portrayed by an absence of satisfactory budgetary assets to finance operational sponsorship – not that it is not an issue in whatever other nation, but rather it is by all accounts exacerbated in the created scene. These offers ascend to issues, for example, an absence of timeous capital speculations to supplant moving stock, absence of incorporated transport arranging, and unlucky deficiency of a firm responsibility to public transport and so forth. Then again the vast majority of the ardent clients of public transport are by and large not in a position to contribute much towards the fare box because of low levels of wage and unemployment.

In fact, road transport services provided by operators in both the formal and informal sectors have been characterized by very harsh environmental factors which have contributed to the low levels of transport services in the industry. Generally there is limited regulatory/institutional effectiveness, lack of a clear and comprehensive policy on public transport (Ofori-Dwumfuo and Dankwah, 2011). Vehicle operators are subject to minimal regulation in terms of the authority to operate as commercial vehicles, area of coverage, standards of operation, maintenance of vehicles and related emissions. This situation has led to freedom to enter the sector and the liberty to leave at will. The industry is dominated by the informal sector and they provide about 95% of transport services but their services are unreliable, uncomfortable and unsafe (Arasan, 2012). Finance is a limiting factor due to the capital intensive nature of public transport operations. The operations are mainly foreign exchange intensive, that is, vehicle spare parts, maintenance equipment, tyres and fuel all need to be imported.

Sourcing for genuine spare parts for the maintenance of vehicles either through the importation from the manufacturers or local purchase, poses a great problem due to

the variety of vehicles used for public transport (Schreffler et al., 2012). In some cases the type of vehicles may be out of the production line and spare parts simply unavailable. Sometimes the spare parts available are obsolete and are not suitable for vehicle maintenance. This situation has led to the concept of fabrication, improvisation and “trial and error” at maintenance workshops especially the “wayside” workshops. The cost of genuine spare parts obtained from the manufacturers’ representatives is too high and prohibitive (Schreffler et al., 2012). Generally, there is lack of requisite human resource needed for vehicle maintenance, more especially; technicians manning wayside garages lack adequate technical skills. The liberalized economy and the absence of a comprehensive transport policy has resulted in the dumping of inferior/fake spare parts and used spare parts on the market which is posing a great challenge to public transport operations. The dumping of used spare parts poses a great environmental risk and distorts the microeconomic stability of the country.

Taking everything into account, the public transport gives extensive business advantages and also brings along its own social issues. Consequently, there is the need to see as paramount the objective of maximizing the benefits of transport to the national economy, while reducing its problems. The miserable condition of public transportation imposes high expenses on the economy as far as high vehicle working expenses and a long uncomfortable travelling time that decreases the output of employers are concerned. The liberal administrative or institutional environment does not increase competition and development of the business. Changes of policies in the industry should be directed towards fortifying the institutional and administrative structure in which public transportation flourishes and to develop the required human

asset and, specialized skill essential for sustenance. Besides, absence of enforcement of regulations brings disorderly environment which is one of the prime causes for not-reliable of public transport. The high population increase that increases the demand for public transport shows no hints of ending subsequently pressure on the transport framework will automatically increase significantly. In the event that resources and energy are not directed to manage the problem of public transportation, the nation will keep on having transport systems that fail to accomplish their objectives and weaken productivity. At last, thought must be given to the introduction of bus priority lanes, measures to improve the operations of public transport, particularly buses, public transport enhancement and traffic management planning. These issues have an unpredictable character and constitute a real test or challenge to government policy makers and transport administrators. While the problems can be effortlessly determined, the solutions remain far off.

## **2.8 Indicators and Measurement of Corporate Performance**

Performance refers to the accomplishment of a given task measured against pre-set known standards of accuracy, completeness, cost, and targets. In measuring corporate performance, the emphasis is placed on assessing the activities of the organization with respect to its efficiency and effectiveness (Hillier et. al, 2010). There are a number of indicators that are used to evaluate corporate performance. According to Harper (2002), these indicators have been categorized into two main groups; financial and non- financial indicators.

### **2.8.1 Financial Indicators of Corporate Performance.**

The financial performance of corporate organizations is of vital interest to different groups and individuals. For instance lenders are concerned about the ability of the corporation to repay their debts as well as abiding by the terms of the loan contracts. Potential investors on the other hand are interested in the determining the financial strength of the corporation as an element in assessing the financial strength of the company's value. This internal analysis of corporate performance involves comparing the performance of the company and its divisions and line of business with plans, budgets or objectives. The key source of information for assessing company performance is the company's own financial statements, the historical record of its past performance. Corporate performance assessment based on financial statement analysis is based on past data and the conditions from which it may be difficult to extrapolate future expectations. Such corporate performance assessment affects only the future, the past is gone, Gitman. (2003, pg.8-9). The use of financial ratios is the most common method of analyzing a firm's financing performance. The ratios are simple mathematical ratios that indicate relations between various items on the financial statements. The analytical skills required for using ratios, is in determining which ratio to use in each case, and interpretation of results. The ratio analysis indicates how well a business a firm has performed since it serves as a diagnostic tool to pinpoint the grey areas which required corrective action. The ratio analysis involves three types of comparisons; historical or trend ratio comparison, external/internal –firm comparison (benchmarking) and comparison with firm's own set standards or plan (Joshi, 1994, pg.402)

According to Mathuva, (2000) and Arnold (2008) the primary ratios or indicators used in assessing internal performance of company can be categorized into five

groups; Liquidity ratios, Assets management ratios, Debt management ratios, Profitability ratios, Market value ratios

## **2.9 Financial Management Practices or Decisions**

### **2.9.1 Working Capital Management Policies**

Working Capital management policy is that set of principles and plans that establishes a course of action for dealing with current assets and current liabilities, (Bougheas et al, 2009, pg.44). Thus it is the administration of current assets and current liabilities. The key objective in working capital management is to maintain an optimal balance between the working capital components (Filbeck & Krueger, 2005, pg.11). The main focus of working capital management policies is on improvement of the company's flow of funds which is the strategy to maintain an efficient level of current assets and liabilities. Mukhopadyay (2004) explained that every organization whether profit oriented, or not irrespective of the size and nature of business, requires necessary amount of working capital. Thus working capital is a crucial factor for maintaining liquidity, survival, solvency and profitability of business. Eljelly (2004) noted that working capital management is one of the most important areas while making the liquidity and profitability comparisons among firms involving the decision of the amount and composition of current assets and the financing of these assets. According to Visnari and Shah, (2007) firm's inventory management policy, debtors' management policy and creditor's management policy have an important role in its profitability performance. According to Deloof (2003), with optimal level of working capital, a firm's value can be maximizing.

Koperunthevi (2010) conducted a study on Working Capital Management and firm's performance of Sri Lankan Manufacturing companies. She established that the management of working capital has a significant influence on the profitability of manufacturing companies and increase of the cash conversion cycle leads to less profitability. Her study concluded that current ratio and Quick ratio are positively related to profitability.

### **2.9.2 Cash Conversion Cycle**

Cash cycle is referred to as the average age of inventory plus the average of age of account receivables, less average age of accounts payable. It shows the average duration of a company's cash invested in inventory and accounts receivable, both do not yield interest. This implies that the firm stands to gain by keeping the cash cycle as short as possible. This link is the heart of working capital management. The longer the cash conversion cycle (CCC), the greater the amount of investment required in working capital, Pandey (2005) and Watson & Head (2007),  $CCC = \text{stock days} - \text{debtor days} - \text{creditor days}$ .

The cash conversion cycles are very important because it shows how much of a company's cash flow is tied up during each transaction. The cash conversion cycles gives investors and other interested parties clear pictures about the company's cash cycle to get an idea of how efficient the business is being run. The shorter the cash conversion cycle the better it looks for a company's finances, so a negative cash cycle is very desirable. A negative cash cycle means that the company does not pay for inventory or materials until it had sold the final products associated with them.

Conversely, a longer cash conversion cycle means that cash is tied up in the firm's operational activities, leaving little chance for other investment of this cash flow.

### **2.9.3 Capital Structure Decisions**

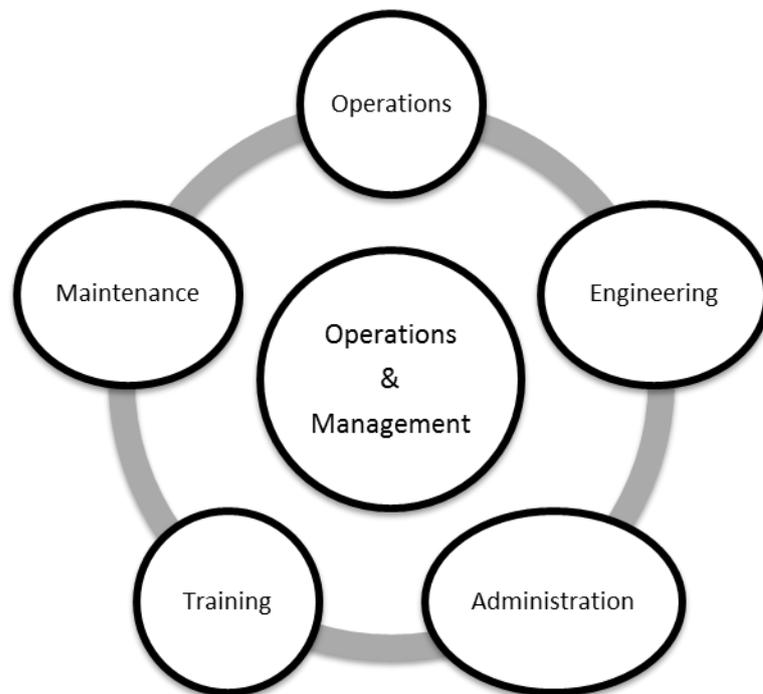
Capital structure is defined as the specific mix of debt and equity a firm or company uses to finance its operations (Abor, 2008). This has attracted attention in modern day corporate finance due to its implication on a firm's value maximization. One cannot talk about financial performance and competitiveness of any organization without given cognizant to Capital Structure. It has also been revealed that, selecting capital structure in its right mix is a vital component of increasing effectiveness of microeconomics. The effect of capital structure on an organization's performance must not be disregarded. Kyereboah-Coleman (2007) reiterated that microfinance institutions which are highly leveraged usually have good performance, hence concluding that capital structure has an effect on an organization's performance and it impacts upon the firm's performance and is therefore very essential element for any business entity. Poor decision on a part of a company about its capital structure can cause financial distress and more still liquidation.

Some empirical evidences have proven that, capital structure decisions have negative relationship with profitability of a company (Myers and Majluf, 1984: and Abor, 2008). However, Petersen and Rajan (1994) were able to establish a significantly positive relationship between profitability and leverage level of a company.

## 2.10 Conceptual Framework of the Study

The study is based on five well-defined elements of an effective Operation and Management program presented in the OMETA concept in Figure 2.1. This framework is built on the practices that could ensure effective and efficient management of MMT. While these components; operations, maintenance, engineering, training, and administration, form the premise for a strong operations and management organization, the key lies in the very much characterized capacities each one brings and the linkages between the organizations. A subset of the duties and obligations regarding each of the components is given in the discussions.

**Figure 2.1: Conceptual Framework**



Source: Meador, 1995: 3.1.

From Figure 2.1, successful organization is vital to guarantee effective performance and control of operation activities of the metro mass transit company limited. The

operations of the company need to be conducted in an effective and efficient manner to guarantee effective, safe, and dependable procedure of operations. The operations of the metro mass transit can further be enhanced through effective and efficient equipment status control that involves taking cognizant status of all equipment. Also, the operator's knowledge and performance needs to be linked to major operations of the company to ensure appropriate support for the safety and reliability of the plant operation. Furthermore, to ensure effective implementation and control of maintenance activities, there is the need for better administration. There is the need for the metro mass transit company to have effective work control system to control the performance of maintenance in an efficient and safe manner such that economical, safe, and reliable plant operation is optimized. The work control system should oversee to the conduct maintenance in a safe and efficient manner. It should also see to a preventive maintenance to contribute to optimum performance and reliability of plant systems and equipment. There is also the need for a maintenance procedures and documentation to provide directions to ensure that maintenance is performed safely and efficiently.

To guarantee successful implementation and control of specialized support, better outline, audit, control, planning, and documentation of equipment designed changes in a timely way, there is the need for engineering support system for the metro mass transit Co. Ltd. (MMT). The company needs to put in place an equipment performance monitoring team to perform monitoring activities that optimize equipment reliability and efficiency. It should in place an engineering support procedures and documentation to ensure that engineering support procedures and

documents provide appropriate direction and that they support the efficiency and safe operations of the equipment.

The metro mass transit company is required to put in place a mechanism to ensure effective implementation and control of training activities. There is the need for a general employee training scheme to ensure that plant personnel have a basic understanding of their responsibilities and safe work practices and have the knowledge and practical abilities necessary to operate the plant safely and reliably. The company, as much as possible should provide training facilities and equipment and also ensure that the training facilities, equipment, and materials effectively support training activities. The training regime should be designed to develop and improve the knowledge and skills necessary to perform assigned job functions such as driving, maintaining of vehicles, conducting and monitoring. To establish and ensure effective implementation of policies and the planning and control of equipment activities there is the need for effective and efficient organizational administrative body. The administrative body should be capable of formulating and utilizing formal management objectives to improve equipment performance. Management Assessment is also essential to monitor and assess station activities to improve all aspects of equipment performance and reduce various forms of corruption in the system.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Overview of Methodology**

This section looks at the research methodology used in this dissertation. The section examines the research outline, the population and the sample and sampling strategy of the study. This chapter then identifies the explanations behind the adoption of the case study strategy. It likewise demonstrates an overview of the data gathering techniques utilized for the thesis, and also the methods used to explain the data. The last area of the section talks about the validity and dependability issues that improve the quality standard of the research.

#### **3.2 Research Design**

As indicated by Polit et al. (2001) the research design is a general arrangement for conducting the study to enable you answers the research question. The research design demonstrates the strides which will be followed in conducting the research. The study used both quantitative and subjective or qualitative approach to the study. Both qualitative and quantitative approaches to research can be used in combination. Amaratunga et al. (2002) further explain that qualitative and quantitative researches are not antithetic rather they center on the different scopes of the same phenomenon. They also emphasize that quantitative and qualitative research can be combined in a way that one can cover the weaknesses of the other. The qualitative approach involved gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Hyde, 2000). It also uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. The quantitative

data encompassed data on financial performance collated from the audited financial statement of MMT.

The study also adopted a case study approach to investigate the plausible means of overriding the overwhelming challenges of the operation of the state Metro-Mass Transit Limited in the country. Case studies typically combine data collection techniques such as interviews, observations, questionnaires, documents and text analysis. However, the current study relies on basically a structured questionnaire as the data collection instrument. A case study is normally applied in a field-based research to describe and improve knowledge that are based on data from real world conditions, purposely to bridge the gap between management theory and practice (Flynn et al., 1990; McCutcheon and Meredith, 1993).

### **3.3 Population of the Study**

According to Saunders, a population is a group of individuals, persons, objects, or items from which samples are taken for measurement (Saunders et al., 2007:101). The entire group of individuals about whom information is gathered is the target population. To design a useful research project, there is the need to be specific about the size and location of your target population. Based on this, the targeted population for this research comprised 12 Managers, 875 Conductors and 987 Drivers of the Metro Mass Transit Company Limited, as at 2<sup>th</sup> July, 2015. The population distribution of the study is presented in Table 3.1.

**Table 3.1: Population Distribution of the Study**

<b>Respondents</b>	<b>Population</b>
Managers	12
Conductors	875
Drivers	987
<b>Total</b>	<b>1,874</b>

### **3.4 Sample Size and Sampling Techniques**

For the purpose of this study, the Metro Mass Transit Limited branches in the southern sector of the country were sampled. Metro Mass Transit Co. Ltd. has been providing the transportation needs of many urban dwellers, as well as rural folks for many years. However, the signals from the financial statements of MMT indicate that all is not well with the company. Upon this premises, the company was chosen for the study.

For the appropriateness of the result of the study, a sample size of 330 was employed. The appropriateness of the sample size was determined through the deVaus finite population formula approach (De Vaus, 1993) and the structure of the sample size is shown in Table 3.2. The deVaus formula for calculating the appropriate sample size is given as:

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

where;

$n$  = Sample size

$N$  = Sample Frame

$\alpha$  = Confidence Level

$$n = \frac{1,874}{1 + 1,874(0.05)^2} = \frac{1,874}{5.685} = 329.6$$

**Table 3.2: Sample Size Distribution**

<b>Respondents</b>	<b>Quota</b>	<b>Sample size (n)</b>
Managers	3.6%	12
Conductors	39.4%	130
Drivers	60.0%	188
<b>Total</b>	<b>100%</b>	<b>330</b>

The study employed a multistage sampling procedure. A multistage sampling procedure is appropriate in an attempt to avoid the use of all sample units in all selected clusters (Pedhazur and Schmelkin, 1991). Furthermore, multistage sampling avoids unnecessary and perhaps high cost associated with traditional cluster sampling. In the first stage, a stratified sampling procedure was employed to put the respondents into three major categories including Managers, Conductors and Drivers. Stratified sampling method was used because of the reasons that follow; it ensures that the sample used is representative of the characteristics used to form the strata. It has a lower standard error or variability, and hence standard error or estimates, maybe minimized. It can also provide higher precision with the same sample size, and thus simplifies data collection (Saunders et al., 2007). A representation from all categories of the target population is obtained in the second stage by giving a quota to the three categories as shown in Table 3.2. The quota distribution rate therefore gave sample size distribution of 12 Managers, 130 Conductors and 188 Drivers. Finally, in the third stage of the multistage sampling procedure, a simple random sampling was employed to select the 130 Conductors and the 188 Drivers of the MMT.

### **3.5 Data Collection**

Data collection instruments used was questionnaires, audited annual financial reports and other statutory statements of the Metro Mass Transit Limited. The annual financial reports of MMT over the past five years (2009-2013) were utilized for this

study so as to gather trends and make informed conclusions about performance. Other forms of secondary data were obtained from reviewing journals, publications and literature relevant to the subject matter of this research. Newspaper source and official policy documents with relevance to the subject were also consulted. The electronic data from various World Wide Web (www) sites were also employed extensively for up-to-date materials on the topic.

### **3.5.1 Data Collection Instruments**

The research depended on structured questionnaire for collecting data for answering objectives 2 and 3. The questionnaire was developed and built on both closed and open ended questions. Closed ended questions were used to test the rating of various attributes and this helped in reducing the number of related responses in order to obtain more varied responses. The questionnaire was self-administered with the managers, drivers and conductors of the Metro Mass Transport Limited.

The questionnaire had been divided into three sections or parts: the first part was for the respondent's demographic characteristics such as age, sex, educational level, and years of working experience with transport sector, the second part of the questionnaire provides items to determine the management practices of the Metro-Mass Transit Limited, and the last part provides items to determine the effectiveness of the management practices of the MMT Limited. All items or statements were measured through a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

To maximize the reliability and validity of the questionnaire, questions generated from the interview was pretested on a sample of 3 managers, 10 drivers and 7 conductors of the VIP transport company in the Kumasi metropolis. Reliability of this study was checked through a Cronbach Alpha analysis. The participants were asked to fill out the initial surveys based on the management practices of the public transport company. The preliminary review took about fifteen to twenty minutes to finish. By administering the pre-test, the researcher made sure that the objects measured in the study revealed actual communications and expectations from the participants interviewed. Outcome of the pre-test analysis proved that the respondents viewed some of the items as measured the same thing, which made it necessary for some minor changes in both the questions and the wording of the items. It was determined that all items must be kept in the research so as to have contributions on a large scale to see if these items actually measured the same constructs from the respondent point-of-view.

### **3.5.2 Data Collection Procedure**

The researcher began the administration of questionnaires by sending a prior notice to the Regional Managers of MMT in the southern sector on the 15<sup>th</sup> of June, 2015. A prior notice was further advanced to the sampled managers, drivers and conductors informing them of research, the reasons behind it and the significance to their company. The administration of the questionnaires therefore began on the 15<sup>th</sup> of July and it was not to take more than 15 minutes with each respondent. Therefore, to save time and reduce the level of inconvenience to the Metro Mass Transit Ltd., the researcher hired the services of one well trained enumerator to assist in the

administration of the questionnaires. The questionnaires were administered to the sampled staffs of the Metro Mass Transit Ltd.

### **3.5.3 Data Preparation, Collation and Processing**

Miles and Huberman (1994) stated that, separating and consolidating data, and afterward thinking about that data is "the stuff of analysis". This progression in the mixed research process usually includes assigning descriptive and inferential labels to data. According to Miles and Huberman (1994) the data examination for this research study started with a preparatory arrangement of codes in light of the perceptual system, the research objectives and questions, and the key variables clear from the literature review. A procedure of returning to the data was used, whereby the data were constantly reconsidered and re-assessed. The researcher was then ready to refine and modify the codes as the investigation advanced. A few codes "decayed" and were dropped, while others at last turned out to be very important to be incorporated in the study. Coded data on reactions were inputted into the computer based program, Statistical Package for Social Sciences (SPSS), version 17 for showcase and analysis. The software created figures, frequencies, rates, tables and charts to show result of the data analysis. Be that as it may, for the secondary data acquired by means of the financial reports and statement of MMT Ltd., calculations of the different constructs and variables for the regression model was done with the assistance of the Microsoft Excel Version 2010.

### **3.6 Data Analysis**

The collated primary data was processed and analyzed using the Statistical Software Program for Social Sciences (SPSS version 17), whereas the secondary data with

regards to the performance of the Metro Mass Transit Ltd. was analyzed using Microsoft-Excel version 2010. Financial ratios were employed as tools for measuring the performance of MMT between 2009 and 2013. The objective two and three of this study were analyzed descriptively. The descriptive analysis conducted involved the use of tabular analysis (percentages and frequencies), and mean values for discussing the key variables involved in the study. The inferential analysis with regards to the effect of management practices on MMT performance was performed using multiple regression analysis.

### **3.7 Data Validity and Reliability**

The reliability of a research instrument concerns the degree to which the instrument gives the same outcome on several trials. Despite the fact that lack of quality is constantly present to a certain degree, there will normally be a great deal of consistency in the outcome of a quality instrument assembled at diverse times. The inclination toward consistency found in repeated measurement is what is called reliability. One way for testing for reliability is the internal consistency technique. The internal consistency technique gives an exceptional assessment of reliability for the given test organization. The most well-known internal consistency reliability appraisal is given by Cronbach's alpha. It is expressed as  $\alpha = \frac{Np}{1+p(N-1)}$ . Where N measures quantity of times and p measures the mean inter item correlation.. The reliability of the major constructs of the questionnaire was tested and this gave Cronbach alpha value of 0.8956.

“Validity is defined as the extent to which the instrument measures what it purports to measure” (Allen & Yen, 1979). Content validity relates to the degree which the instrument completely evaluates or measure the construct of interest. The

questionnaire was deliberately outlined and tried with a couple of individuals from the population for further enhancement. This was done to improve its legitimacy and precision of data to be gathered for the study.

### **3.8 Ethical Consideration**

De Vos (1998:8) defines ethics as “a set of moral principles which is suggested by an individual or group is subsequently widely accepted and which offers rules and behavioral expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students.” Ethical issues considered in this study incorporate the privileges of the organization and scientific genuineness with respect to the researcher. The objective of performing the research is to come out with information through honest conduct, reporting and distribution of the research report. The researcher is mindful that the data ought not be adulterated nor manipulated so as to keep up the quality of the research and of the report (Burns & Grove, 1993). To accomplish this, a written consent was obtained from the Manager of MMT Ltd. in-charge of southern sector, informing them of the purpose and design of the study. Besides, the researcher unveiled to the respondents that the study is absolutely intended to fulfill an academic prerequisite and not for some other reason. Respondents did not state their names in the questionnaires and confidentiality was keen kept.

## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.0 Introduction

This chapter contains the analysis of the primary and secondary data. The chapter start with the socio-demographic profiles of the respondents-managers, drivers and conductors. The chapter later identifies management practices and its effectiveness. This is performed in agreement with the stated objectives as well as the research questions.

#### 4.1 Socio-Demographics Characteristics of Respondents

Goll, Johson and Rasheed (2007) stated that socio-demographic characteristics such as gender, age, level of education, year of experience and position in the establishment provide the advantage of being objective, testable and comprehensive. As shown in Table 4.1, almost two-third (62.1%) of the respondents are males whereas the rest are females. This is not different from what obtains in the secular world where more males are in paid employment than females.

Majority (60.9%) of the respondents are >33 years with barely more than a hundredth (2.7%) aged 18-22 years. All the respondents are educated in various levels, with more than half (55.2%) having secondary education. Almost half of the respondents (48.2%) earn ₦301-500 with the second highest earners ₦501-700 (42.4%). MMT being established about 13 years ago is not expected to have employees beyond this period. Hence, almost half (43.6%) have spent 1-5years working with MMT and more than a tenth (14.5%) have worked for >10 years. Majority of the respondents are drivers followed by conductors and managers.

**Table 4.1 Socio-Demographic Characteristics of Respondents**

Socio-demographic		Frequency	Percentage
Gender	Male	205	62.1
	Female	125	37.9
Age	18-22	9	2.7
	23-27	44	13.4
	28-32	76	23.0
	>33	201	60.9
Educational level	Basic	126	38.2
	Secondary	182	55.2
	Tertiary	18	5.4
	Post-tertiary	4	1.2
Monthly income	₱100-300	17	5.2
	₱301-500	161	48.8
	₱501-700	140	42.4
	₱701-900	1	0.3
	>₱901	11	3.3
Position in the establishment	Driver	188	57.0
	Conductor	130	39.4
	Manager	12	3.6
Years of experience	1-5years	144	43.6
	5-10years	138	41.8
	>10years	48	14.6

Source: Fieldwork, 2015.

Bekibele et al. (2007) in a study on drivers of public institutions in Ibadan noted that, all the respondents were males. Similarly, Asiamah, Mock and Blantari (2002) in Ghana revealed that, all the respondents were males and further noted that, female commercial drivers are rare in Ghana. As shown in Table 4.2, more than three-fourth of the males are drivers. This underlines male dominance in the driving business. It was until about four years ago that a couple of former female conductors working with MMT were trained on how to drive large buses. Before then there was no female driver in MMT.

Table 4.2 reveals that more than three-fourth of conductors are females unlike drivers' and managers' categories. A licensed driver must attain the age of 18 years for private vehicles and 25 years for commercial vehicles before one is permitted to drive (DVLA, 2014). In Sweden and Norway sixteen years age limit is set for learner drivers (Gregersen et al., 2000). In Ipingbemi (2010), more than 60% of the respondents were less than 45 years. However, Table 4.2 shows that almost all the drivers are >33years. On the part of conductors, almost half are aged 28-32 years. The statutory for employment in Ghana is 18 years, hence more than a twentieth (6.9%) of the conductors are 18-22 years. Majority of managers are aged 28-32 years old.

Abimah (2013) revealed that more than a third of the respondents who were within the age brackets of 15-34 years had their education up to JHS level whereas more than half within the age range of 35-65 years attended middle school. The authors further revealed that almost all the respondents have had one form of education or the other. In Asiamah et al. (2002), a significant percentage of the commercial drivers had no formal schooling and most had only basic primary education. Similarly, Ipingbemi

(2010) revealed that more than 90% of commercial drivers in South Western Ibadan have no more than secondary education. On the other hand, majority of respondents with SHS and tertiary education were corporate and private drivers.

MMT being a corporate organization attracts drivers who have had one form of education or the other as shown in Tables 4.1 and 4.2. This is above national literacy rate of 71% (GSS, 2014). Majority of the drivers (63.7%) in Table 4.2 have basic education with 1.1% having tertiary education. On the other hand conductors are expected to have low educational attainment like drivers. However, more than three-fourth (85.4%) has secondary education. All the managers have tertiary and post tertiary education.

The cross tabulation of position in the establishment and income level as shown in Table 4.2 shows that almost two-thirds (64.4%) of the drivers earn ₦501-700, more than two-third (72.3%) of conductors earn ₦301-500 with almost all the managers earning >₦900. As indicated in Table 4.2, almost half (48.9%) of the drivers have 1-5 years' experience with more than half (53.8%) of conductors and managers (58.1%) having 5-10years working experience.

**Table 4.2 Cross Tabulation of Position in the Establishment and Socio-Demographic Characteristics**

Socio-demographic		Position in the establishment		
		Drivers (f/%)	Conductors (f/%)	Managers (f/%)
Gender	Male	182(96.8)	16(12.3)	7(58.3)
	Female	6(3.2)	114(87.7)	5(41.7)
Age	18-22	0	9(6.9)	0
	23-27	0	44(33.8)	0
	28-32	5(2.7)	63(48.5)	8(66.7)
	>33	183(97.3)	14(10.8)	4(33.3)
Education	Basic	115(63.9)	11(8.5)	0
	Secondary	71(39.4)	111(85.4)	0
	Tertiary	2(1.1)	8(6.1)	8(66.7)
	Post-tertiary	0	0	4(33.3)
Income	₺100-300	5(2.7)	12(9.2)	0
	₺301-500	67(37.2)	94(72.3)	0
	₺501-700	116(64.4)	24(18.5)	0
	₺701-900	0	0	1(8.3)
	>₺901	0	0	11(91.7)
Years of experience	1-5years	88(48.9)	52(40)	4(13.3)
	5-10years	61(33.9)	70(53.8)	7(58.1)
	>10years	39(21.7)	8(6.2)	1(8.3)

Source: fieldwork, 2015.

## 4.2 Management Practices

This section considers the current management practices in MMT. This includes issues bordering on staff going on leave, hours of work, working and getting paid for overtime, and other management practices. This section also looks into the challenges confronting MMT.

As in Saudi Public Transport Company (SAPCO) a bus is assigned to one or two scheduled drivers. The work regulation requires that:

- (a) Each driver takes a minimum of hours off work before he takes another trip, which may be to another station or his original (base) station.
- (b) Each driver has to take one day off work per week.

On the other hand the normal working hours is 8 in all government establishments in Ghana. Starting from 8am-4pm. However, almost all staff of MMT work for more than eight (>8hours) (see Table 4.4). According to Table 4.3, almost half (47.0%) of the respondents have gone on leave from 3-6months ago with 41.5% went gone on leave over a year ago.

**Table 4.3 Last Time of Leave**

Last time of leave	Frequency	Percent
<3months	26	7.9
3-6months	155	47.0
6months-1year	12	3.6
>1year	137	41.5
Total	330	100.0

Source: Fieldwork, 2015.

**Table 4.4 Hours of Work per Day**

Hours of work per day	Frequency	Percent
<8hours	11	3.3
>8hours	319	96.7
Total	330	100.0

Source: fieldwork, 2015.

According to Table 4.5, more than three-fourth (86.4%) of the respondents mostly work overtime with almost 80% not getting paid for overtime.

**Table 4.5 Mostly Work Overtime and Getting Paid for Overtime**

Mostly work over time	Frequency	Percentage
No	45	13.6
Yes	285	86.4
Getting paid for over time		
No	263	79.7
Yes	25	7.6

Source: Fieldwork, 2015.

Table 4.5 indicates that the perception of management practices of effectiveness of taking part in decision (1.99), there is free of information (2.19), staff are to go on leave (1.45), staffs are allowed to attend off the job training yearly (1.64), MMT offers scheduled trips on intercity routes (1.69) and MMT offers scheduled trips on intra-city (1.63) is below average. All other attributes revealed above average perception.

**Table 4.5 Other Management Practices**

Management practices	Means
Effectiveness of taking part in decision making	1.99
There is free flow of information	2.19
There is free flow of information from down to top	2.88
There is a cordial relationship between managers and subordinates	2.61
Staffs are allowed to go on study leave	1.45
Staffs are allowed to attend off the job training yearly	1.64
MMT offers quality service to customers	2.52
MMT offers scheduled trips on intercity routes	1.69
MMT offers scheduled trips on intra-city	1.63

Source: Fieldwork, 2015. \*Mean scores <2.50=below average; =2.50=average; >2.50 above average

MMT as a transport company like any other state funded ventures in the developing economy is fraught with a number of challenges that potentially threaten its viability as a business entity (Abane, 2009). To Abane (2009), some of these challenges are competition from other players, service quality and management challenges. The governments of Ghana have at various changed the management of MMT and ISTC to ensure efficient service delivery. This at times culminates into change of name of the company. A recent demonstration by the workers of ISTC and MMT was to address the alleged mismanagement of the company and some also questioned the ownership of the business, claiming that a consultant had pocketed part of their provident fund.

Though MMT has fairly received some scholarly attention, only few studies have focused on the politics, administration and interests that characterize the Mass Transit Program (Yobo, 2013). Again, Yobo (2013), for instance, investigated the extent of state's involvement in MMT and how the Ghanaian government employs the public bus transit to achieve its social and political goals. These works notwithstanding, there is still shortage of empirical studies, which specifically investigate the management and financing strategies of the MMT.

Yobo (2013) noted that MMT maintains valuable international cooperation in the field of supplies, financing and transfer of expertise. It enjoys concessionary financing agreement with the Netherlands and Belgium. In March 2006, for instance, Belgium's VDL Jonckheere Company signed an agreement with Ghana's Ministry of Finance to produce and ship 63 new VDL commuter buses to augment MMT fleet. Likewise, the ORET grant is an agreement between the Dutch government (represented by FMO, a Dutch development bank) and Government of Ghana (represented by the Ministry of Transport) to ensure fleet supply to MMT. There have been several of such bilateral financing agreements, with the maiden agreement signed on March 5, 2002 (Yobo, 2013).

Buses supplied under the ORET grant contract has 35% discount and 65% credit facility respectively from the Dutch government, and accompanied by technical expertise. A significant precondition of this concessionary fleet financing agreement with the Dutch Government is to permit MMT to operate as though a private entity. Thus, MMT is required to implement best management practices from entrepreneurship and private sector into the public (transport) service delivery to maximize state's profit. The Ghanaian Government is, thus, restrained by the

concessionary financing agreements to acquire absolute majority (50% plus) equity in MMT Limited. The purpose is to expose MMT to private sector values, as part of efforts, to evade the usual pitfalls of absolute state ownership and control.

Kwabena et al. (2013) supports the findings in this study with the most nagging challenge of MMT being the inability to meet the demands of passengers. These borders on service quality. Kwabena et al. noted that the overall, service quality delivered by MMT could be rated as mediocre. It must always be remembered that mediocre customer service quality delivery does not create loyal and advocate customers.

As shown in Table 4.6, the second nagging challenge of MMT is the nature of ownership (6.50). Studies like Nwachukcu (2008) Kwabena et al. (2013), Yobo (2013) and Ojo et al. (2014) have highlighted the blighted nature of ownership of government own transport companies. Government owned companies don't perform as good as private owned transport companies.

The next challenge is the inability of MMT to meet the demands of passengers (6.44). The improved socio-demographic characteristics of the population call for a higher level of transport service. Analyzing the travel behavior of trip makers in separate studies, Abane (2011) isolated factors such as gender, education, income and occupation as those largely influencing passengers' choice. Based on this, the public and private buses' operators may not be able to satisfy the higher level of expectations, desire, tastes and preferences of all heterogeneous groups.

Inadequate operational buses (6.35) are a nagging challenge bedeviling MMT. The MMT currently operates on 423 routes nationwide with 16 depots across the ten regions of Ghana. Its fleet spans over 1,600 buses [out of which 800 are operational

daily] and employs about 4,780 workers throughout the country (Yobo et al., 2013). ISTC a sister company has had to suspend services on a number of its routes such as Accra-Cape Coast (Ojo et al., 2014b). On the other hand, Hassan and Hammad (2010) noted a considerable number of buses operated by Saudi Public Transport Company (SAPTCO).

This is borne by the fact that SAPTCO operates Mercedes 404 SHD and Mercedes 404 RI-IL fleet types for the intercity trip. The fleet assignment model developed by American Airlines was adapted and applied to a sample of the intercity bus schedule. The results showed a substantial saving of 29% in the total number of needed buses. This encourages the decision makers at SAPTCO to use only Mercedes 404 SHD fleet type. Meanwhile, a couple of MMT buses have broken without spare buses. In 2007, MMT had to acquire 63 Jonckheere VDL buses, 90 Tata buses and 150 VDL DAF bus chassis (for bus construction) to support its operations (Yobo et al., 2013).

There have been calls for demonstration by workers of MMT. The most recent one was held in May over workers' welfare and the sudden disappearance of MMT buses. As shown in Table 4.6, the welfare of workers ranked 4<sup>th</sup> on the log. Fifth on the log is the frequent breaking down of vehicles with the nature of the road network (3.34; 9<sup>th</sup>).

**Table 4.6: Ranking of challenges bedeviling MMT**

Challenges	Mean	Rank
1. Inability to meet the demands of passengers	6.44	1 <sup>st</sup>
2. Nature of ownership	6.50	2 <sup>nd</sup>
3. Inadequate operation buses	6.35	3 <sup>rd</sup>
4. Workers welfare	6.13	4 <sup>th</sup>
5. Frequent breaking of vehicles	5.03	5 <sup>th</sup>
6. Incessant increase in fuel prices	4.40	6 <sup>th</sup>
7. Employee turnover rate	3.47	7 <sup>th</sup>
8. Spate of changing management	3.35	8 <sup>th</sup>
9. Nature of road network	3.34	9 <sup>th</sup>

Source: Fieldwork, 2015.

### **4.3 Financial Management Analysis**

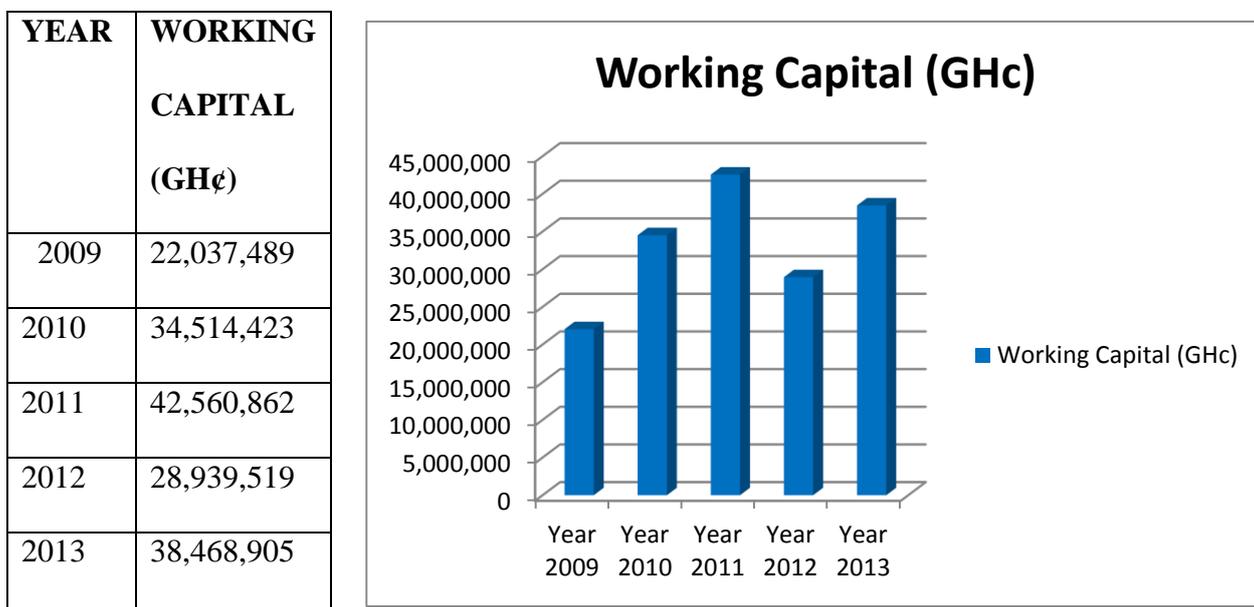
#### **4.3.1 Working Capital Decisions**

Proper management of working capital ensures that a company has sufficient cash flow in order to meet its short term debt obligations and operating expenses. Thus an efficient management of working capital contributes to the high financial performance. Working Capital = Current Assets – Current Liabilities.

There was a steady increase in MMT's working capital from 2009 to 2011 and declined in 2012 but rises again in 2013. The company experiences a positive working capital for the five year period 2009 to 2013. This is an indicative that the company is

able to settle its short term liabilities with its current assets. MMT has no liquidity risk due to fact that sufficient cash are available to meet the short term obligations or operational expenses.

**Figure 4.1 Working Capital**



Source: Researcher, 2015

### 4.3.2 Capital Structure or Leverage Level Decision

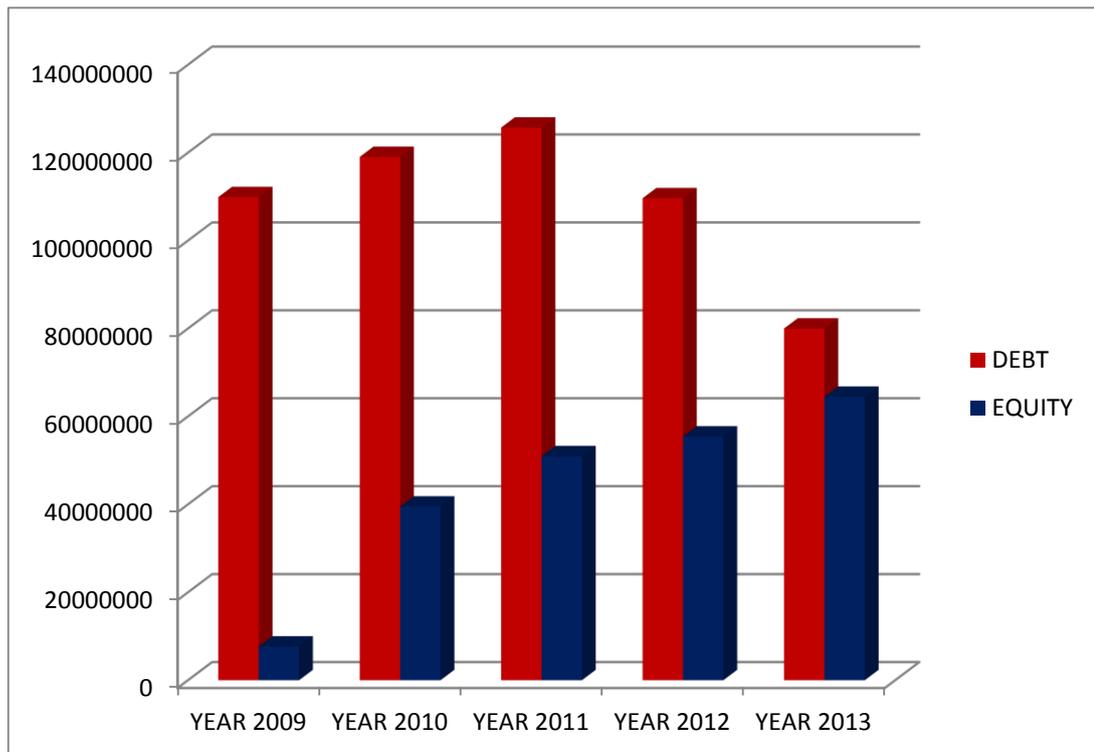
Capital Structure is the combination of debt and equity to finance operations of a company. The effect of capital structure on an organization’s performance must not be disregard. Capital Structure in its right mix helps the company to achieve optimum financial performance. It is calculated by dividing Total Debt by Total Equity.

MMT though has tried to reduce its leverage level from 4.36 in 2009 to 1.24 in 2013, it is still highly leveraged thus unattractive to investors. The company is not financially stable and is more risky to creditors and investors. As the company tries to decrease it leverage level, its profitability also reduces thus implying that leverage and

profitability has a positive relationship. This is in support of the trade-off theory and the study by Petersen and Rajan (1994) but contradict the research work of Abor, (2008) who indicated a negative relationship between profitability and debt/equity ratio.

**Figure 4.2 Capital Structure of MMT**

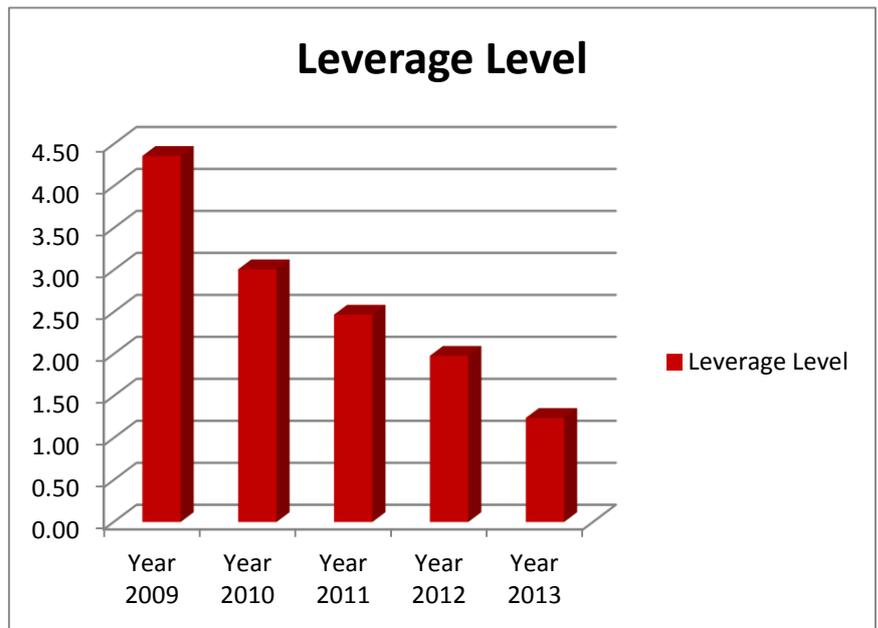
YEAR	DEBT	EQUITY
YEAR 2009	109884501	7,663,164
YEAR 2010	119029547	39493170
YEAR 2011	125707003	50948426
YEAR 2012	109625205	55433675
YEAR 2013	79994017	64460710



Source: Researcher, 2015.

**Figure 4.3 Debt/Equity Ratio of MMT**

YEAR	LEVERAG E LEVEL
2009	4.36:1
2010	3.01:1
2011	2.47:1
2012	1.98:1
2013	1.24:1



Source: Researcher, 2015

#### **4.3 Effectiveness of Management Practices**

According to Table 4.7, frequent changing of management is healthy (2.20) and rewards for best staff award yearly boost performance (1.75) revealed below average means. This means that these management practices provide below average effectiveness. Meanwhile, taking of staff attendance daily helps improve attendance (2.50) is averagely effective but Private Public Partnership (PPP) is boosting the performance of the company revealed above average (2.81) effectiveness.

**Table 4.7: Effectiveness of Management Practices**

Effectiveness of management practices	Mean
Taking of staff attendance daily helps improve punctuality	2.50
Private Public Partnership is boosting the performance of the company	2.81
Frequent changing of management is healthy	2.20
Rewards for best staff award yearly boost performance	1.75

Source: Fieldwork, 2015. \*Mean scores <2.50=below average; =2.50=average; >2.50 above average

#### **4.3.1 Cash Conversion Cycle (CCC)**

Cash Conversion Cycle is one of the several measurements of effectiveness. CCC is an indicator of the company's efficiency in managing its important working capital and provides a clear view of the company's ability to settle its current liabilities. It is derived by adding inventory period to debtor's period and subtracting creditor's period.

MMT's cash conversion cycle increased rapidly from 57days in 2009 to 111days in 2011 and declined to 30 days in 2013. The company takes a longer time to convert its inventories into sales and its sales into cash, which is then used to settle its suppliers for goods and services.

**Table 4.8 Cash Conversion Cycle**

<b>YEAR</b>	<b>DEBTOR DAYS</b>	<b>STOCK DAYS</b>	<b>CREDITORS DAYS</b>	<b>CASH CONVERSION CYCLE</b>
2009	1	66	10	57
2010	5	63	20	48
2011	73	62	24	111
2012	7	66	32	41
2013	8	32	10	30

Source: Researcher, 2015

#### **4.4 Performance of MMT from 2009-2013**

MMT like newly established transport companies was performing better at inception, even up to 2009 (see Table 4.9) but starting to fumble in revenue generation with increase in operation cost. Berhan et al. (2013) found out that the overall operational and financial performance of Anbessa City Service Enterprise which is the sole and government owned transport enterprise in Ethiopia was abysmal.

According to Table 4.9 and Figure 4.1, the profit margin of MMT in 2009 was 13,733,030 as against 14,565,832 in 2010. Thereafter, there was a decline to 11,455,256 in 2011 and more than half reduction in profit margin in 2012. However, the company almost doubled its profit margin in 2013. MMT as at 2009, had 1103 buses but has 1019 in 2013. There is a growing concern with the decrease in profit margin, which may be as a result of the number of operational buses.

Nwachukwu (2008) in a study in Nigeria presents a different scenerio after comparing the inter urban bus services of public and public sector mass transit agencies in Enugu, Nigeria with the aim of determining whether signifcant difference exist in their performace. The study found out that there was no statistically signifcant difference in the performance of Enugu state Transport Corporation (ENTRACO) (Public operator) and Peace Mass Transit (private operator). This means that, both ENTRACO and Peace Mass Transit are operating at the same level within the period under study. It is expected that Peace Mass Transit as a private operator operate more efficiently than ENTRACO. But because the Enugu state Government handed over the company to a private operator, they now operate the corporation efficiently and effectively.

#### **4.4.1 Ratio Analysis**

Finacial ratios enables a simple and the quickest means of assessing the financial health and strenght of a business (Atrill and McLaney, 2010). Ratio simply relates one figure appearing in financial statement to other figure in the same statement This analysis is based on the financial statements supplied by MMT and the ratios are shown in table 4.8. Although it covers many aspects of performance and financial position, the analysis is basically about how well the company has managed it resources in terms of efficiency, liquidity and its impact on profitability.

#### **Financial Statements**

Table 4.9 shows financial statements of Metro Mass Transit Co. Ltd. from 2009 to 2013: a profit and loss account, and a balance sheet. The profit and loss account

reports financial performance for an accounting period, which is usually one calendar year ending on the date given in the balance sheet.

### **Benchmarks**

Financial ratios in isolation have no or little significance when analysing financial performance of a business. Financial ratios must be compared against appropriate benchmarks in order to interpret their meaning in relation to performance measures (Watson and Head, 2007). The benchmark used here was to compare performance measures and ratios for MMT from previous years.

### **Categories of Ratios**

Weetman (1999) stated that before focusing on areas of concern, a systematic approach to ratio analysis should be established in a broader picture. Financial ratios had been divided into categories which are connected to a particular areas of concern. These includes; Profitability, Activity/Efficiency, Liquidity, Financial Gearing and Investment Ratios. In this analysis, only the first three categories of ratios mentioned above will be used.

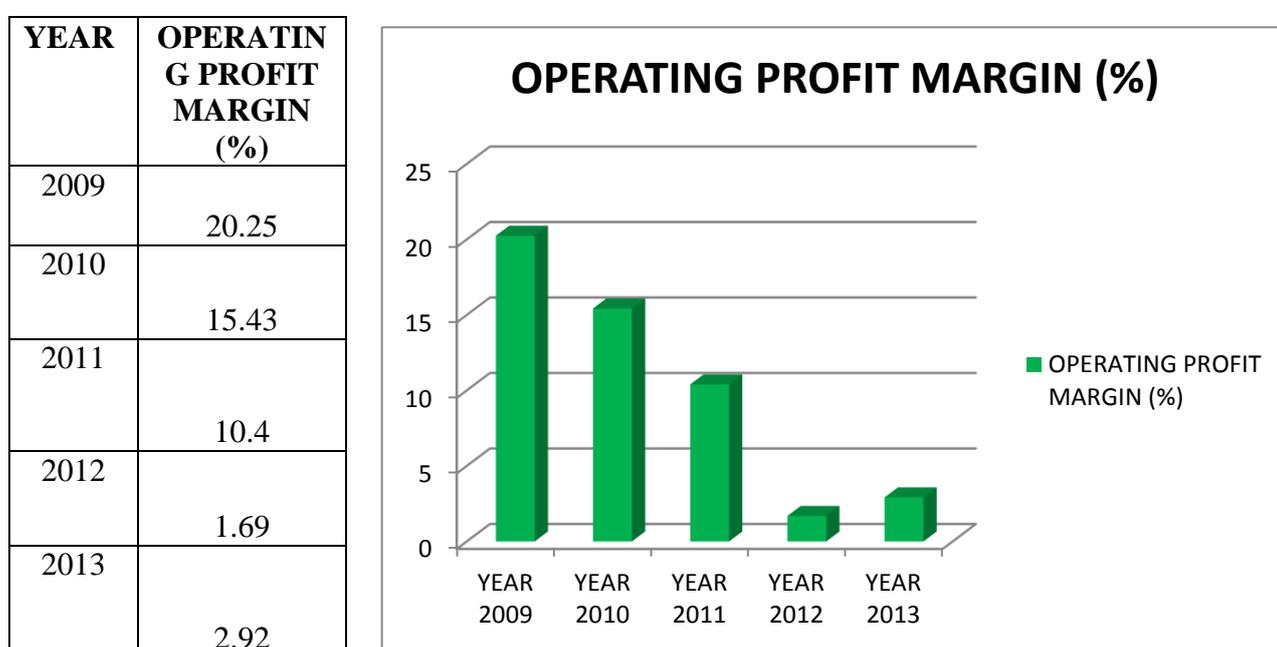
### **Profitability ratios**

Profitability ratios shows how successful the management of a company have been in earning profit (Watson and Head, 2007). The primary purpose of companies is creating wealth for their owners hence profitability ratios provide insights relating to the degree of success in achieving this purpose. They express the profit earned in relation to other key figures in the financial statements.

The decreasing trend in the returns on shareholders' funds (ROI) and capital employed (ROCE) resulted from the decreased in the profitability of the company. ROI and ROCE decreased from the year 2009 (54.51% and 7.34% respectively) to 2012

(9.02% and 1.13% respectively) and increased slightly in year 2013 (14% and 2.55% respectively). The Operating profit margin of the company started with 20.25% in 2009 and started declining to as low as 1.69% in year 2012 but improves slightly to 2.92 in year 2013, these decreasing returns were as a result of the company not able to control its operational cost very well. The gross profit margin of the company started 33.89% in 2009 and started declining to 16.90% in the year 2012 but improves slightly to 18.29% in year 2013.

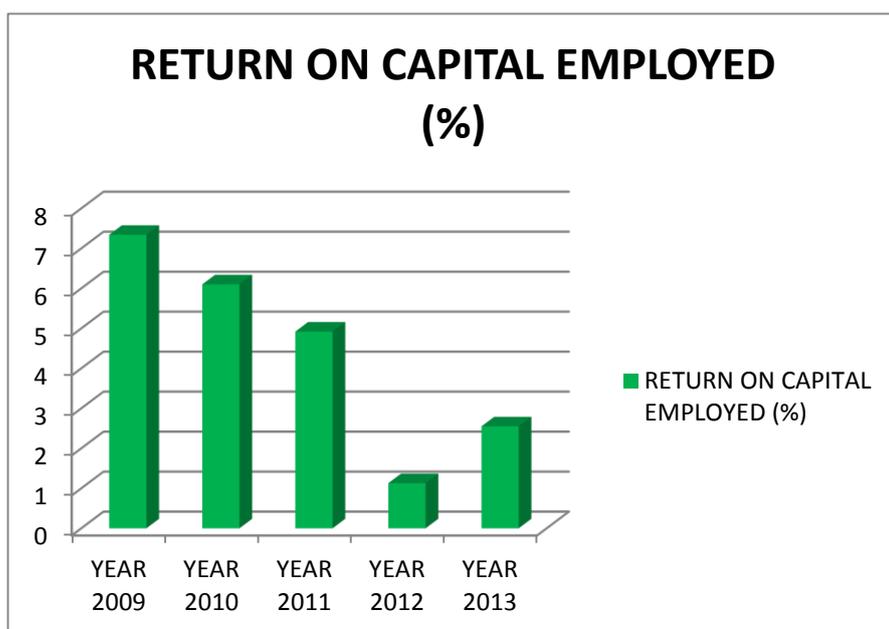
**Figure 4.4 Operating Profit Margin**



Source: Researcher, 2015

**Figure 4.5: Return On Capital Employed**

YEAR	RETURN ON CAPITAL EMPLOYED (%)
2009	7.34
2010	6.10
2011	4.92
2012	1.13
2013	2.55



Source: Reseacher, 2015

### **Efficiency Ratio**

Activity ratios may be used to measure the efficiency with which particular resources have been used within the business. Sales Revenue to Capital Employed ratio is used to measure the effectiveness with which assets are being used to generate sales. The size of this ratio will be a reflection of the company's strategy on margins and turnover. Although the ratio has been increasing from 0.36 in year 2009 to 0.87 in year 2013, it is still very low.

### **Liquidity Ratio**

This ratio is vital to the survival of the company; it measures availability of sufficient liquid resources to meet maturing obligations. The company is highly liquid, although both current and acid test ratios has been declining from 24.12:1 to 13.31:1 and

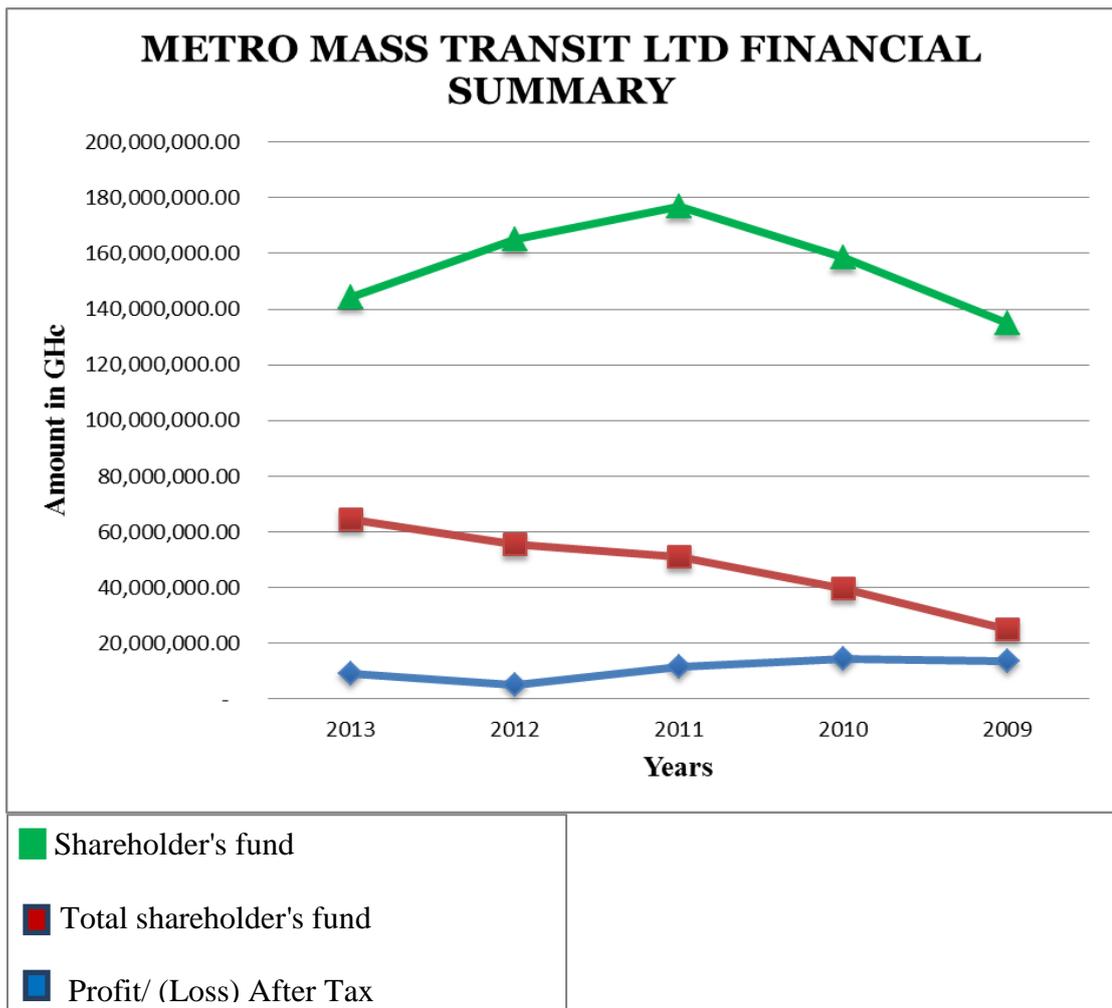
18.94:1 to 9.87:1 from year 2009 to 2013 respectively, they are still enough to cover current liabilities of the company.

**Table 4.9 Financial Ratios**

<b>YEAR</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
<b>Profitability Ratios:</b>	%	%	%	%	%
Return on Ordinary Shareholders' Funds	14.00	9.02	22.48	36.88	54.51
Return On Capital Employed	2.55	1.13	4.92	6.10	7.34
Operating Profit Margin	2.92	1.69	10.40	15.43	20.25
Gross Profit Margin.	18.29	16.90	24.88	31.28	33.89
<b>Efficiency Ratios:</b>	times	times	times	times	times
Sales Revenue to Capital Employed	0.87 times	0.67 times	0.47 times	0.40 times	0.36 times
<b>Liquidity Ratios:</b>					
Current ratio	13.31:1	6.07:1	11.81:1	17.42:1	24.12:1
Acid Test ratio	9.87:1	3.98:1	9.42:1	14.35:1	18.94:1

Source: Researcher, 2015.

**Figure 4.6 Financial Summary of MMT**



SOURCE: Researcher, 2015

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This section comprises the summary of findings from the study, which informed the conclusion. Moreover, recommendations were offered for management of MMT to overcome these challenges. The study aimed to examine the measures that can be employed to override the overwhelming challenges of the operation of MMT in Ghana. Specifically, the study seeks to:

1. Examine the performance of the Metro-Mass Transit Limited;
2. Discuss the management practices of the Metro-Mass Transit Limited;
3. Determine the effectiveness of the management practices of the MMT Limited and examine the effect of these management practices on performance.

In order to achieve the stated objectives, data on MMT was collected from drivers, conductors and managers from July 20-27, 2015. The study first of all explained the different concepts used in the study with the theory underpinning the study. The study employed mixed method approach comprising both primary and secondary data. Questionnaire administration was the main means of acquiring primary data.

The respondents comprised drivers, conductors and managers of MMT. 130 drivers, 188 conductors and 12 managers were surveyed in the study. A multiple stage sampling technique was adopted for the study. Quota sampling was used to identify the contribution of each of the constituents to the target population; purposive sampling technique was used in choosing the stations to administer the questionnaires with accidental sampling technique used in serving the questionnaires. The quantitative data was analysed using SPSS 12v with the use of frequency, percentage

and means. The secondary data was presented in a table and a figure. Excel was used in analysing the secondary data with the use of financial ratios, tables and charts.

### **5.1 Summary of Findings**

The performance of MMT has not improved over the years. This problem is endemic with public transport companies owned by the government in developing countries. The dwindling number of operational buses culminating in fewer profit margins over the years orchestrates this.

Majority of the respondents don't get paid for working overtime. Perception of management practices of effectiveness of taking part in decision making, there is free of information staff are to go on leave, staffs are allowed to attend off the job training yearly, MMT offers scheduled trips on intercity routes, and MMT offers scheduled trips on intra-city, is below average.

MMT as a transport company like any other state funded ventures in the developing economy is fraught with a number of challenges that potentially threaten its viability as a business entity. These challenges seem to shape management practices. Nine of such challenges were ranked in the study with inability to meet passengers demand as number 1 and nature of road network as number 9.

Rewards for best staff award yearly boost performance and frequent changing of management is healthy do provide below average results with PPP providing more than average effectiveness.

The company has recorded a positive working capital from 2009 to 2013 indicating an impressive performance since it was able to settle its short term liabilities with its

current assets.

MMT is highly leveraged, though it has been able to reduce its debt/equity ratio from 4.36 in 2009 to 1.24 in 2013. The company's profitability has also declined indicating a positive relationship between profitability and leverage level.

MMT Ltd. has not been efficient in managing its working capital and thus has to borrow from external sources (Overdraft) to finance its short term obligations (Creditors), This is due to the fact that that the company has a positive cash conversion cycle of more than 30days in 2013.

## **5.2 Conclusions**

Based on the findings of the study, the following conclusions were drawn: With reference to objective 1 it was concluded that, MMT is not performing well compared to yester years. This is in conformity with the assertion that public transport companies perform better during their earlier days of operation.

In response to objective 2, a couple of the attributes of management practices revealed below average results and the management of MMT are confronted with a number of challenges affecting their practices. With regards to objective 3, the management parctices are not effectives with only one management practice revealing above average results. Management practices of MMT is actually affecting performance.

Metro Mass Transit Ltd. cannot survive in the keen competition in the road transport industry and guarantee sustainable corporate performance. In the absence of this, MMT, just like Omnibus Service Authority (OSA) and State Transport Corporation (STC), may sooner or later collapse, defeating the good intentions for setting it up.

### **5.3 Recommendations**

Based on the foregoing the following recommendations were proffered:

1. The management of MMT should pay staff for working overtime allowance.
2. The management should make proper use of Public Private Partnership. This can help in securing more buses to boost operations.
3. The management of MMT should work on attributes of management practices that revealed below average or average mean scores. Any improvement on these attributes would give the management a better look.
4. The management is expected to go in for buses that they can readily have access to spare parts.
5. The Government of Ghana has at various points being poised to revitalize the ailing company. First and foremost the indebtedness of the company could be looked at and the spate of mismanagement, which has been the bane of any government, owned enterprise could be arrested if appropriate measures are put in place.
6. The management of MMT must work to reduce the operational cost of the company, especially fuel consumption of the buses; fuel efficiency must be one of key objectives of the company.
7. The management of MMT must strengthen its internal control systems to curtail revenue leakages and also improve its working capital management.
8. Management must also try to maintain an optimum leverage level in order to improve its profitability.

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## APPENDIX A

### QUESTIONNAIRES FOR MANAGERS, DRIVERS AND CONDUCTORS

#### Overriding the Financial Challenges of State Mass Transport Companies in Ghana: A Case Study of Metro Mass Transit Company Limited

##### Preamble

This is a research questionnaire for writing dissertation on the topic “overriding the challenges of state mass transport in Ghana: a case study of metro mass transit company limited” in partial fulfilment of the requirements for the award of an MBA degree from the Kwame Nkrumah University of Science and Technology (KNUST).

It is important for the success of this study that employees give their candid opinion about the questions asked. This is purely for an academic exercise; therefore any information proffered is intended for that purpose. There is no right or wrong to any question. Your participation in this study is completely solicited and your responses will be treated with utmost confidentiality.

Please tick (√) appropriately.

##### Section A: Socio-demographic characteristics

1. Gender (a) Male ( ) (b) Female ( )
  
2. Age (a) 18-22 ( ) (b) 23-27 ( ) (c) 28-32 ( ) (d) 33-above ( )
  
3. Educational level (a) No formal education ( ) (b) Basic education ( )  
(c) Secondary education ( ) (d) Tertiary education ( ) (e) Post tertiary education ( )
  
4. Position in the establishment (a) driver ( ) (b) conductor ( ) (c) Manager ( )
  
5. Years of experience in the current position  
(a) Less than a year ( ) (b) 1-5 years ( )  
(c) 5-10 years ( ) (d) above 10 years ( )

6. Monthly income (a) less than ₱100 ( ) (b) ₱100-₱300 ( )  
 (c) ₱301-₱500 ( ) (d) ₱501-₱700 ( ) (e) 701-900 ( ) (f) >901 ( )

**Section B: Management Practices of MMT Ltd.**

7. Mode of employment (a) permanent ( ) (b) casual ( )
8. When was the last time of going on leave? (a) Less than three month ago ( ) (b) less than six months ago ( ) (c) almost a year ago ( ) (d) more than a year ago ( )
9. Reasons for the last time of going on leave -----  
 -----  
 -----
10. How many hours a day do you work?  
 (a) Less than 8 hours ( ) (b) more than 8 hours ( )
11. Do you mostly work overtime even on weekends (a) yes ( ) (b) no ( )
12. If yes why do you work overtime? -----  
 -----
13. Do you get paid for overtime work done? (a) Yes ( ) (b) no ( )
14. Salary scale in MMT -----  
 -----
15. Effectiveness of taking part in decision-making process such as fixing of fares  
 (a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )  
 (d) Agree ( ) (e) strongly agree ( )
16. There is free flow of information from top to down  
 (a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

17. There is free flow of information from down to top

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

18. There is a cordial relationship between managers and subordinates

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

19. Staffs are allowed to go on study leave after three years of service

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

20. Staffs are allowed to attend off the job training yearly

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

21. MMT offers quality service to customers

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

22. MMT offers scheduled trips on intercity route

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

23. MMT offers scheduled trips on intra city route

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

24. Rank the following challenges in the order of severity 1-5 (with 1 being the lowest and 5 the highest)

24i. Inability to meet the demands of passengers (1) (2) (3) (4) (5)

24ii. Inadequate operation buses (1) (2) (3) (4) (5)

24iii. Nature of ownership (1) (2) (3) (4) (5)

24iv. Workers welfare (1) (2) (3) (4) (5)

24v. Frequent breaking of vehicles (1) (2) (3) (4) (5)

24vi. Incessant increase in fuel prices (1) (2) (3) (4) (5)

24vii. Spate of changing management (1) (2) (3) (4) (5)

24viii. Nature of road network (1) (2) (3) (4) (5)

24ix. Employee turnover rate (1) (2) (3) (4) (5)

24x. Others (specify) (1) (2) (3) (4) (5)

**Section C: Effectiveness of management practices of MMT Ltd.**

**25. Taking of staff attendance daily helps improve punctuality**

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

26. Private Public Partnership is boosting the performance of the company

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

27. Frequent changing of management is healthy

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

28. Rewards for best staff award yearly boost performance

(a) Strongly disagree ( ) (b) Disagree ( ) (c) Neutral ( )

(d) Agree ( ) (e) strongly agree ( )

**Section D: Recommendations for MMT Ltd.**

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## APPENDIX B

### METRO MASS TRANSIT Co. LTD: FINANCIAL SUMMARY FROM 2009 TO 2013

INCOME STATEMENT	2013	2012	2011	2010	2009
Operating income	123,374,868	105,970,379	81,600,124	61,838,871	48,609,756
Operating expense	(102,807,267)	88,067,144	61,298,803	42,496,845	32,134,463
<b>Gross Profit/ Loss</b>	<b>22,567,601</b>	<b>17,903,235</b>	<b>20,301,321</b>	<b>19,342,026</b>	<b>16,475,292</b>
Administrative Expense	18,960,805	16,110,569	11,811,443	9,798,916	6,631,735
Operating profit/ (Loss)	3,606,796	1,792,666	8,489,878	9,543,110	9,843,557
Other Income	5,751,940	3,684,902	3,226,110	5,131,029	3,966,555
Profit/ (Loss) before Interest	9,358,736	5,477,568	11,715,988	14,674,139	13,810,112
Extraordinary Item				12,071,477	
Interest & Banking charges	331,701	477,519	260,732	108,307	77,082
Profit/ (Loss) before Tax	9,027,035	5,000,049	11,455,256	14,565,832	13,733,030
Tax				12,000,685	
<b>Profit/ (Loss) After Tax</b>	<b>9,027,035</b>	<b>5,000,049</b>	<b>11,455,256</b>	<b>14,565,832</b>	<b>13,733,030</b>

<b>BALANCE SHEET</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
<b>Non-current Assets</b>	<b>102,860,777</b>	<b>130,376,284</b>	<b>130,157,907</b>	<b>121,905,906</b>	<b>111,295,295</b>
<b>Current Assets</b>					
Inventories	10,762,049	11,967,662	9,422,805	6,456,055	5,110,507
Receivables	2,788,756	2,175,450	16,301,536	873,639	198,516
Cash and Bank	4,927,324	2,588,467	2,034,054	2,636,396	1,552,964
Taxation	246,486	233,863	221,602	102,167	24,199
Fixed deposit	22,869,335	17,717,154	18,517,525	26,548,554	16,902,647
<b>Total Current Assets</b>	<b>41,593,950</b>	<b>34,682,596</b>	<b>46,497,522</b>	<b>36,616,811</b>	<b>23,785,323</b>
<b>TOTAL ASSETS</b>	<b>144,454,727</b>	<b>165,058,880</b>	<b>176,655,429</b>	<b>158,522,717</b>	<b>135,080,618</b>
Bank Overdraft	227,082	454,679	767,048	258,427	254,770
Payables	2,897,963	5,256,833	3,169,612	1,843,961	731,411
<b>Current Liabilities</b>	<b>3,125,045</b>	<b>5,711,512</b>	<b>3,936,660</b>	<b>2,102,388</b>	<b>986,181</b>
<b>Non-current Liabilities</b>					
Deferred Income	76,868,972	103,913,693	121,770,343	116,927,159	108,898,320
Government Loan	-	-	-	-	-
<b>Total Non-current Liabilities</b>	<b>76,868,972</b>	<b>103,913,693</b>	<b>121,770,343</b>	<b>116,927,159</b>	<b>108,989,320</b>

<b>TOTAL LIABILITIES</b>	<b>79,994,017</b>	<b>109,625,205</b>	<b>125,707,003</b>	<b>119,029,547</b>	<b>109,884,501</b>
Stated Capital	5,430,613	5,430,613	5,430,613	5,430,613	5,430,613
Income Surplus	51,366,933	42,339,898	37,854,649	26,399,393	12,102,340
Capital Surplus	7,663,933	7,663,164	7,663,164	7,663,164	7,663,164
<b>Total Shareholder's Fund</b>	<b>64,460,710</b>	<b>55,433,675</b>	<b>50,948,426</b>	<b>39,493,170</b>	<b>25,196,117</b>
<b>SHAREHOLDERS'S FUND &amp; LIAB.</b>	<b>144,454,727</b>	<b>165,058,880</b>	<b>176,655,429</b>	<b>158,522,717</b>	<b>135,080,618</b>

<b>KEY COST ITEMS</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Number of Buses	1019	1049	1188	1113	1103
Bus Depreciation: GHc	29,729,958	29,579,667	24,407,361	21,834,419	18,378,309
Fuel Cost: GHc	49,470,328	41,697,886	34,025,119	23,581,183	18,939,450
Spare Parts, Batteries &W.Exp	12,625,188	11,205,825	7,568,619	6,610,141	3,860,092
Tyres	7,271,051	5,961,872	5,153,307	3,344,316	3,159,105
Tickets	471,083	473,939	403,993	305,408	378,472
Direct Wages % Salaries: GHc	27,121,485	23,134,279	13,687,680	9,398,807	6,537,017