AN INVESTIGATION INTO THE CONSTRAINTS AFFECTING THE GROWTH AND PROFITABILITY OF PUBLIC TRANSPORT BUSINESS IN NAIROBI. A CASE OF LANGATA/RONGAI ROUTE

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An investigation into the constraints
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This research project is my original work and has not been presented anywhere for the award of a degree in any University.

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This work is dedicated to all the female PSV drivers and conductors for their courage of venturing in this male dominated industry.
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ACRONYMS

ERS : Economic recovery strategy
GDP : Gross Domestic Product
GNP : Gross National Product
ILO : International Labour Organization
IPAR : Institute Of Policy Analysis And Research
KBS : Kenya Bus Service
KSHS : Kenya shillings
KIPPPRA : Kenya Institute of Public Policy Research And Analysis
MAK : Matatu Association of Kenya
MSEs : Micro and Small Enterprises
MOTC : Ministry of Transport and Communication
MTC : Ministry of Transport and Communication
MVOA : Matatu' vehicles Association
MWA : Matatu’ Welfare Association
NARC : National Alliance of Rain Bow Coalition
OTC : Overseas Motor Transport Company
PSV : Public Service Vehicle
TLB : Transport Licensing Board
SACCO : Savings and Credit Cooperative Societies
CBS : Central Bureau of Statistics
OCS : Officer In charge of a Station
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ABSTRACT

Transport plays an important role in integrating the various sectors in the Kenyan economy and the sector makes crucial contribution to economic growth and development (Ndung’u P. et al 2004). Road transport is the leading sub sector accounting for 2.9% of the GDP (IPAR 2004). Public as well as private organizations require efficient and well-coordinated transport systems to enable them realize conveyance of their goods and services effectively. The efficiency of transport system therefore remains a major concern in promoting harmony amongst various interacting organizational parts. The purpose of the study is to investigate the constraints affecting the growth and profitability of public transport business in Nairobi. The study will make recommendations on the measures that the government should take to improve the public transport sub sector. The study will be descriptive and will use the survey design methodology. Data will be collected using questionnaires that will be administered to PSV owners, police officers, drivers and conductors of Langata/Rongai route. Simple random sampling method will be used to draw a sample of 110 respondents. The data will be analyzed by generating descriptive statistics such as percentages, and measures of central tendency. The data will be presented by using tables, charts and cross tabulations. The findings of the study should show the nature of infrastructure in Nairobi, the training and ethics of PSV drivers and conductors and the regulatory framework within which the public transport business operates.
CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Transport plays an important role in integrating the various sectors in the Kenyan economy just like elsewhere in the world. The sector makes crucial contribution to economic growth and development. It is estimated that the PSV industry in Kenya controls over 80% of passenger transportation (IPAR 2004).

Since the inception of the ‘matatu’ as a mode of public transport in 1973, the PSV industry has been experiencing an exponential growth in size and in terms of employment creation. Currently the industry has an estimate fleet of about 40,000 vehicles, of which 11,000 operate in Nairobi. The end result of this growth is increased cost of running the business, greater risk of road traffic accidents, poor services delivery and exorbitant fares (Ndung’u P. Et al 2004).

Thus the MTC introduced PSV road safety rules in the transport industry that were expected to help streamline the transport sector through creation of order and safety in the public sector transport services for greater profitability and growth.

Being a service provider for all other sectors of the economy, transport is central to the performance of all sectors. The transport sector in Kenya is multimode in nature. The sector makes crucial contribution to the economic growth and development of the country. The share of this sector in GDP averaged 8.5% for the period 1998 to 2002 on average road transport is the leading sub sector accounting for an average of 2.9% of GDP (Economic survey, 2003).

The significance of transport in the life of a nation needs no further emphasis. Indeed the Economic recovery Strategy for Wealth and Employment Creation 2003-2007 identifies the
transport sector as the third pillar of Kenya’s economic recovery efforts, which targets an annual GDP growth rate of 7% by the year 2006 (Asingo2004). An efficient public transport system ensures an efficient conveyance of both goods and people that enhances economic productivity and growth. It is against this background that the study will investigate the effects of road safety rules on public transport business in Nairobi. A case of Langata\Rongai route.

1.2 Statement of the problem

Since its inception, the public transport industry has experienced exponential growth in the number of PSVs and employment creation. The result of this growth is increased risk of road traffic accidents that are rapidly emerging as a leading cause of death and disability in developing and developed countries. In Asia and Pacific Region alone, over 2 million deaths and approximately 1.7 million disabilities are caused by road transport accidents in the 1990s (Razzak, 1998). In Africa government policies or their absence provoke immense costs and adverse reactions by entrepreneurs. Sometimes the policies or regulations are at fault, other times their implementation (Coughlin and Ikiara 1991). In Uganda low levels of safety awareness and poor training as a result of poorly equipped elementary driving schools makes the country fatality rate of 16 per 1,000 vehicles (IPAR, 2004). The situation in Kenya is no different. According to economic commission for Africa (1997) between 16% and 52% of the Kenyan’s total earning on road transport is lost through traffic accidents.

In spite of the various constraints that affect the growth and profitability of public transport business such as poor roads and lack of proper regulations, no study has been done to document them. The purpose of this study will be to investigate the constraints affecting the

1.3 Purpose of the study

The main purpose of the study is to investigate the constraints affecting the growth and profitability of the public transport business in Nairobi. The study aims at making recommendations based on the findings, which should throw some light on the measures that, the government should take to improve the public transport sub sector.

1.4 RESEARCH OBJECTIVES

The broad objective of the study is to investigate the constraints affecting the growth and profitability of the public transport business in Nairobi.

1.4.1 Specific objectives:

1. To investigate the organizational structure of PSV business in Nairobi
2. To assess the role of the regulatory framework in promoting profitability and growth in the public transport industry
3. To investigate the problems affecting the growth of the PSV industry
4. To establish the training and ethics provided to PSV drivers and conductors
5. To make recommendations aimed at improving the performance of the industry.

1.4.2 Research questions

1. What is the organizational structure of the public transport business in Nairobi?
2. What role do regulations play in promoting efficiency and profitability in the public transport industry?
3. What problems hinder the growth of the public transport industry?
4. What training is provided to PSV drivers and conductors in Nairobi?
5. What changes would help in improving the performance of the public transport industry?

1.5 Significance of the Study

Findings from this study will provide a sound basis for critical policy decisions by the GOK policy makers, which are aimed at improving both the management and profitability of the sector. The study will also be of importance to the local and foreign investors who may be interested in the transport industry. Commuters who use the PSVs will also find the report useful. Findings of the study will also be useful to the insurance industry as well as the traffic police department in their endeavor to create efficiency in the sub sector. The findings of the research will also be necessary to raise critical issues that need to be addressed in helping to improve the PSV industry. The study will also capture emerging issues and challenges in the PSV industry. Finally, the study will also add to the existing body of knowledge especially on the public transport sub sector.

1.6 Justification of the study

The study is necessitated by the fact that based on available literature, although other research have been done regarding the ‘matatu’ industry in rural areas, there is limited documentation on the constraints affecting the growth and profitability of the public transport in Nairobi. Kenya’s road network serves both domestic and regional passenger and freight transport demand.
The public transport industry is an important sub sector of the transport industry and serves other sectors and hence affects their growth and performance. According to available estimates public transport account for 80% of the market share of passengers (IPAR 2004).

1.7 Scope
The study will cover the public transport business in Nairobi area. A study of Lang’ata-Rongai route.

1.8 Limitation
Kenya’s transport system comprises of five major modes (road, water, rail, air and pipeline) however, the study limits itself to the road transport and in particular the constraints affecting the growth and profitability of the on public transport business in Nairobi. The study is based in an urban setting though public transport is found everywhere in the country even in rural areas. The study is designed as a social survey and will be limited to the responses of the interviewees to various questionnaire items. The items will be assumed to measure with some degree of accuracy the effects of road safety rules on public transport in Nairobi.
1.7 DEFINITION OF TERMS

‘Matatu’ The term ‘matatu’ is derived from a kikuyu word mang’otore ‘matatu’, which literally means ‘three - ten cents coins or thirty cents’. ‘Matatus’ are privately owned Public Service Vehicles that include Nissans, mini buses popularly known as ‘manyanga’, pick ups build to carry passengers that operate in both the urban and rural areas.

‘Manyanga’ A ‘kiswahili’ word that means youthful and is commonly adopted for modern mini-buses in the ‘matatu’ industry to entice customers.

MSEs As used in this research, MSEs are those enterprises whose employees range from 1 to 49 in the developing nations and minimum of 50 to a maximum of 100 in the developed countries.

Cartel A combination of independent business organizations formed to regulate or monopolize production, pricing or marketing of goods or services by members.

‘Nissan matatu’ A description given to privately owned public transport vehicle of 14-passenger sitter irrespective if the make.

Mini – bus A description given to privately owned public transport vehicle of 25 passenger sitter.
CHAPTER TWO

2.0 REVIEW OF RELEVANT LITERATURE

2.1 Introduction

The purpose of the literature review is to set the study subject in a broader context through investigation of the relevant literature and other sources. The review will cover the state of infrastructure in Nairobi, the structural organization of the public transport business, training and ethics of the PSV drivers and conductors. Finally, the review will cover the role of policy regulation in promoting efficiency in public transport. Key theories and arguments in the literature will be identified and amplified with various academic opinions and interpretations.

2.1.1 The role of public transport industry in economic development.

The history of motorized public transport in Kenya dates back to the early 1930s. In 1934, overseas motor transport company (OTC) of London was allowed to provide in transport services in Nairobi by carrying paying passengers and consequently established the KBS (Opiyo 2002). In 1973, the then president gave the legal recognition of the ‘matatu’ as an alternative mode of transport.

Road transport is a barometer of a country’s economic strength and growth. A country’s export markets strongly influence the fortunes of its transport-vehicle industry. For many developed nations this industry symbolizes industrial progress and is the hub of many economic activities (Coughlin and Ikiara 1991). There is wide consensus that transport is a major contributor to national economic growth and development. However, whether transport plays a leading or complementary role in economic growth has often been a subject of heated
debate (Gannon and Liu, 1997). They argued that transport plays a leading role when transport investments stimulate economic growth through their market widening effect and complementary role when transport investments are required to serve the growth demand. Road transport is perhaps the oldest and the most dominant mode of transport in Kenya. It controls 70% of passenger and freight transportation. This mode of transport links many rural areas. The public transport is entirely private and involves buses and 'matatus'.

By the end of 1973, there were more than 990 PSVs on the roads employing more than 1800 workers. By 1984, the number of PSVs had increased to over 6,000 and an increase of 506%. Towards 1994 the figure had risen to over 22,800. By 2002 there were 29,000 PSVs (Economic Survey various issues). Much of the growth is explained by the economic liberalisation in the early 1990s and the early civil servant retirement scheme through the structural adjustment programs (Opiyo 2002). Most of the benefits of this scheme popularly known as the golden handshake went to the PSV industry spurring the growth of the industry.

The PSV industry in Kenya has grown rapidly over the past 15-20 years and is currently leading in the public transport. It is estimated that at present the industry has 40,000 vehicles, 160,000 workers and generates considerable revenue both for the central and local government in the form of taxes as well as for insurance firms, spare parts dealers, mechanics and many other parties (IPAR 2004).

The industry is an important sub sector of the transport sector and plays a vital role in the Kenyan economy. It generates more than Kshs.2.9 billion for petrol stations per month in form of fuel consumption (IPAR Sept. 2004). In addition, the earnings from the industry have substantially grown over the years. In 2002 alone, the industry earned over Kshs13.3 billion equivalent to 1.4% of GDP. In Kenya, from 1993-2002, the 'matatu accounted for 80% of the
passenger transport earnings. The contribution of the PSV industry in economic development through passenger transport cannot be ignored.

A pilot study in January 1983 on 'matatu' and minibuses operating in Nairobi and its environment revealed that on average each 'matatu' employ two people. In the same year, 6,000 'matatus' were issued with PSV licenses implying that the sector employed more than 12,000 workers (Economic survey 1985). This shows the important role played by 'matatus' in employment creation.

The role and importance of the transport sector in any economy can best be understood when it links with other sectors of the economy. Transport is a crucial factor in boosting agricultural sector performance. An effective transport system ensures prompt access to low input prices leading to low cost of production and competitive price (IPAR 2004). This in turn translates to increased production as well as diversification of outputs. It ensures timely delivery of highly valued and perishable agricultural produce to the market and as a result raises the income of the rural people and hence leads in the reduction of poverty in rural areas. Transport facilitates access to education and health services both in rural and urban areas (Khayesi 2002).

A reliable transport system leads to low and affordable prices of consumer goods; improve access to economic opportunities, markets and social amenities by the poor. Another linkage through which transport impacts on poverty alleviation is empowerment of the poor. Through the efficient transport system the poor especially in remote areas are enlighten about their rights and can access the right information (IPAR 2004).
The objective of making the industry profitable, well regulated and efficient in terms of services delivery has not been met yet. In most cases the risk of traffic injury is one of the causes of mortality with the greatest impact especially for children and young adult (Lafflamme, 1998). (Murray, 1996) cite that in 1990, over 500,000 people died and 10 million were crippled globally. The forecast for 2020 raised it to third position after heart disease and clinical depression.

Another major issue is the unpredictable pricing of services and exploitation of passengers by ‘matatu’ crews. Some route cartels fix prices for the service irrespective of the distance traveled.

Illegal groups and cartels and self-proclaimed route owners were attracted by the industry with diverse and conflicting interests. The industry had never been protected and has thus been abused by some cartels, which had been extorting colossal sums of money from the industry. Although the move towards economic liberalization proposed in the late 1980s and 1990s was aimed at reducing distortions in the economy, deregulations of markets has had adverse impact on PSV industry as well (Mullei & Bokea). High inflation rate have increased the cost of spare parts, fuel and hence the cost of maintaining the PSV (Asingo, 2004).

2.2 The structural organization of the public transport industry

An organization is the rational coordination of activities of a number of people for the achievement of some common explicit purpose or goal, through division of labour and function and through a hierarchy of authority and responsibility (Schein, D.1987). Likewise, (Hall 1987) defines organization as possessing a relatively identifiable boundary... ranks of authority, communication systems and membership coordinating systems. Organizations exist
for a purpose and they can be known through a structure of job descriptions and organization charts. (Cole 2000) states that the structure of an organization can be defined simply as the sum total of the ways in which it divides its labour into distinct tasks and then achieves coordination between them. An organization structure is an intangible web of relationship between people, their shared purpose and the tasks they set themselves to achieve these purposes. An organization is therefore a social structure that is composed of people working towards a common goal (Cole 2000).

On the other hand, (Turner 1986) defines an association as a number of persons who have come together to meet their interests. They are a means that citizens use to pursue their interests. Their characteristics include: size, membership, objectives activities and legal status. In the third world today associations are the main means of working with and support efforts of target groups such as PSV owners. Associations existed at national level from the early 1970s (Aduwo 1992). The PSV industry also has associations that assist for the purpose of creation of efficiency. In 1973, ‘matatu’ owners formed a nation wide association known as Matatu Owners Association (MVOA) with an aim of controlling the operations of the sector and articulate the interests of the owners to the government. MVOA became necessary because the government had legalized the operations of the matatu industry without providing any legal or regulatory framework for the sector.

All ‘matatus’ were expected to register with MVOA. Whose tasks included: mandate to allocate routes to new ‘matatus’, install some semblance of order in an otherwise chaotic industry and even developed a code of conduct for its members. How ever the association was banned by the government in 1988 after it was accused of providing avenue for political
destabilization (IPAR 2004). The sector then reverted to its original chaotic and free for all operation environments in which ‘matatu’ owners were allowed to operate on routes of their own choice.

In 1997, a new ‘matatu’ civil organization known as the ‘Matatu’ Welfare Association (MWA) was launched but was only registered in 2001. The vision of this association was to fill the void created by the banning of the MVOA in 1988. It also sought to bring together ‘matatu’ owners and operators in order to articulate the issues affecting the ‘matatu’ industry (Asingo, 2004). The ‘Matatu’ Owners Association (MOA) was formed in April 2003 out of feeling by some people that MWA was not adequately addressing the problems afflicting the ‘matatu’ industry (Asingo, 2004). However the two associations do not agree and this greatly undermines their ability to represent the interests of matatu owners.

‘Matatu’ owners have also formed several route-based savings and credit societies (SACCOs) and welfare organizations the ‘Matatu’ route based civil organization. Their objectives vary form one SACCO to another but they generally revolve around pooling resources and redistributing them to members through a credit scheme, or reinvesting in the transport support sectors like petrol stations. They also organize route operations with a view to improving services delivery. Other objective included addressing general welfare concerns of members and articulating members’ interests to relevant government organs. Some of these SACCOs limit membership to ‘matatu’ owners while others open their membership to all those associated with there operations including drivers and conductors. These structural organizations are formed with an aim of improving efficiency and profitability in the public
transport sector. There is no structured link between the two—'matatu' national civil organizations and the state institution responsible for public road transportation as stated by (Asingo 2004) each operates independently of the other.

### 2.3 The role of policy regulations in promoting efficiency in the Public transport industry.

The role of policy towards the development of the MSE sector in Kenya has varied since independence. The official stance towards the sector changed only with the publication of the ILO report in 1972. Government policy sought to bring the indigenisation of the Kenyan economy by encouraging private enterprise.

The thrust of the policy framework was to replace white-owned large-scale enterprises with African owned enterprises of the same size. Support for small enterprises was only mooted to achieve Kenyanization of the economy after it was realized that this would not be forthcoming from large enterprises (KIPPRA, 2004). This policy therefore undertook to support the growth of small enterprises mainly owned by indigenous Kenyans. According to the ILO report the MSE sector grew despite absence of government policy and in many cases government harassment. It is therefore in a background of policy uncertainty that the PSV business started operating in 1973. Prior to the new regulations, the PSV industry had been operating without proper regulations and comprehensive policy in place to guide it (IPAR, 2004). Various attempts by the government to regulate the industry failed to make any serious impact.

#### 2.3.1 New reforms and regulations in the public transport industry

The minister for transport through legal notice number 161 made some amendments to the traffic act cap 303 that include:
• Seatbelts: It is a legal requirement that every motor vehicle shall have seat belts in every seating position.

• Speed governors: It is a legal requirement that every PSV and commercial motor vehicle with tare weight that exceeds 3,048 kgs. Be fitted with a speed governor from 1st of February 2004.

• Owners are required to indicate the route their 'matatu' is plying, registered tare weight and the capacity the vehicle is licensed to carry.

• Owners are required to indicate their names and address on the body of the vehicle.

• Drivers and conductors are required to wear special badges and uniforms. The badges are provided by the Registrar of motor vehicle upon payment of a prescribed fee.

• Drivers will be required to exhibit as recent photograph showing the head and shoulders. This photo shall be displayed so that it is visible to passengers riding in the vehicle

• Every driver will also be compelled to undergo a compulsory driving test after every two years.

• Every PSV owner shall employ on permanent basis and pay his crew on monthly basis rather than on daily basis.

• All PSV vehicles shall be fitted with a continuous yellow band on both sides and on rear measuring 150mm in width clearly visible from a distance of not less than 275 meters (Legal Notice no. 161)

The new reforms in the PSV industry have helped to bring some semblance to sanity in the industry.
2.3.2 Emerging policy concerns

The emerging policy concerns pertain to availability, profitability, and affordability of PSV transport (KIPPRA 2004).

- Tax policy and how it impacts on supply of more PSVs to meet the transport demand, business operations and financial viability. Issues concerning the tax burden on PSV operators are at centre stage.
- Policies relating to the cost of insurance and the extent to which PSV operators can afford.
- Government policy on PSV vehicles importation-maximum age and conditions and costs of operation and how it affects determination of fare.
- Long-term environmental impact of importation of second hand vehicles when they become junk and PSV disposal policy including issues of recycling.
- Sources of investment capital and its effect on the number of PSVs on the road and the profitability to the investor and
- Regulation of the industry and training of drivers

The new reforms and regulations in the public transport industry are expected to streamline the operations in the industry for safety and comfort of passengers and increase profitability in the business. The emerging issues should be addressed to ensure efficiency in the industry.

2.4 Problems affecting the growth of the Public transport industry

Despite the rapid growth and outstanding contributions of the PSV industry, the industry has faced many problems. Excessive regulatory constraints inhibit business competitiveness worldwide. Africa is striving to industrialize but often, government policies or their absence
provoke immense costs and adverse reactions by entrepreneurs. Sometimes the policies or regulations are at fault other times their implementation (Coughlin and Ikiara 1991). Prior to the new regulations, the PSV industry had been operating without proper regulations and comprehensive policy in place, creating chaos in the industry. The industry has been marred by poor regulation and a monopolistic nature of price determination (IPAR, 2004). (Aduwo, 1982) observes that despite the important role played by the PSV industry they have been the objects of persistent public criticism. The PSVs have been viewed as uneconomic, unruly, and a hazardous means of transporting the growing mass of urban population in Nairobi.

The PSV operations have not only grown beyond expectations but now also constitute a gigantic problem in the management of the city’s traffic transport system. Aduwo further notes further that, matatus have been rightly blamed as being a major cause of the most dreadful accidents and their drivers have been accused of abusing traffic rules.

Police corruption and harassment followed by high government taxes, cartels and high running and maintenance costs are among the problems affecting the growth of the matatu industry (Chitere, 2004).

Lack of access to bank credit is cited as one of their biggest constraints to the growth of most businesses. In Kenya, the banking industry, which accounts for almost 10% of the country’s GDP remains largely oblivious to the credit needs of small businesses (Oketch, 1999). States that investing in PSV need a large sum of money. The potential investor in the PSV industry has to meet both the initial capital and operational costs to cover purchase deposits, insurance,
road license, matatu association membership, fuel, tires, salary and allowances, maintenance and depreciation (IPAR, 2004).

(Liedholm and mead 1991) states that the matatu industry is flooded by a plethora of actors, with diverse, and sometimes conflicting social economic and political interests each of which only helps to increase cost of running the matatu business as well as creating managerial conflict (Ndung’u P. 2004). Significant evidence is accumulating that physical infrastructure constraints the growth and development of the businesses (Bokea, et Al 1999). The deplorable state of the roads has contributed to increased matatu maintenance and fuel cost hence reducing profitability. In a report by IPAR 2004, road transport was rated third at 12.7% of the problems of the matatu industry as perceived by the owners (Chitere, 2004).

2.5 Training and ethics for PSV drivers and conductors

According to Cole 2000, training is any learning activity, which is directed towards the acquisition of specific knowledge and skills for the purpose of an occupation or tasks. Training therefore focuses on the job or task to be performed. Training therefore is more of job related and it prepares the PSV drivers to undertake their profession.

Training is of great importance in any career as Armstrong 1996 explains that lack of training has resulted in high labour turnover, inefficiency and causes stress especially in a stressful environment where there is rapid changing technology. The public service industry is also not immune to stress and ample training must be provided to the drivers and conductors to enable them perform their duties efficiently. According to Cole 2000, factors that affect training include:
- Availability of modern facilities and equipment for training particularly in skill such as driving
- Skilled personnel to offer the training
- Availability of adequate resources and finances
- A supporting appraisal system must also be put in place
- The opportunity cost of the period of training and the amount of time allocated for training.

According to Graham and Bennet (1998) a good training program is one where the training needs are well analyzed before any planned training takes place. The period of training should also be sufficient to cover the needs of the target group. Training activities must also be evaluated on regular basis to ensure that training is compliant with the changes in the environment. The study will seek to investigate whether training and ethics of PSV drivers and conductors constraints profitability and growth of the industry.

According to (Chitere, 2004), to become a PSV driver in Kenya, the law requires that one must be a holder of at least class C driving license for those driving mini-buses whose weight exceeds 1,820 kgs. and class E license for those driving smaller vehicles such as Nissans. The driver must also be authorized to drive a PSV after meeting the following conditions: must have at least four years experience, since acquiring a driving license or should be retested before he is issued with a PSV certificate. They must also have a certificate of good conduct that is issued by the Police Department for those who have no criminal records. The study will seek to investigate whether training and ethics of PSV drivers and conductors constraints profitability and growth of the industry.
2.6 Theoretical and Conceptual Framework

2.6.1 Theoretical framework

Theoretically, the public transport industry exhibits monopolistic competition. According to Chamberlin (1933), firms in monopolistic competition produce differentiated products. Products are differentiated by the nature of the services they offer. Services offered by public transport are different from other modes of transport. The model of monopolistic competition means that a large number of firms produce differentiated products. In this model profits encourage other firms to produce competing products. If the new product introduced is a substitute for other products then it has little effects in changing the demand curve. In addition the existing demand curve may become more elastic in the relevant range of output reflecting an increased number of substitutes available. A transport firm chooses an output level to maximize profits like any other in a monopolistically competitive industry.

Another theory that forms the current study is the institutional economic theory. North (1993) notes that institutions are humanly devised constraints that structure human interaction. The constraints are rules, laws constitutions, self-imposed conducts and norms of behavior. Constraints and enforcements characteristics define the incentive structure of societies and economies at large. These organizations reflect the opportunities available. That is, if an institution rewards piracy and corruption, then piratical and corrupt structures will emanate. In Kenya, various institutions and individual players have vested interest in the public transport industry. The current problems facing it are due to lack of efficient and effective institutions coupled with conflicting interest among groups and individuals (Chitere, 2004).
2.6.2 Conceptual Framework

Henderson (1994) argued that the major aims of research should be to 'either relates data to a theory or to generate a theory from data'. In order to hold existing and new knowledge, theory should provide a conceptual framework, so that knowledge can be interpreted for empirical application in a comprehensive manner.

The conceptualization is based on the following variables: organizational structure of public transport business, problems affecting the growth of the public transport industry, the role of regulatory framework in promoting efficiency and profitability in the public transport industry and training and ethics of PSV drivers and conductors. These variables form the independent variables of the study. The dependent variable is profitability and growth of the public transport industry.

Figure 1.1 below shows the conceptualization of the relationship between the dependent and the independent variables.

Figure 1.1: The conceptual framework

Organization structure of public transport business

The role of the regulatory framework

Training and ethics of drivers and conductors

Profitability and growth of public transport industry

Source: Researcher (2005)
2.7 Summary and gaps to be filled

Some areas in this study have been researched but no research has been done on the constraints that affect the growth and profitability of the public transport in Nairobi. Despite the important role played by public transport in an economy, through passenger transport and integrating the various sectors in the Kenyan economy, the objective of making the industry profitable, well regulated and efficient in terms of services delivery has not been met and hence there is a gap posed on the need to study the constraints that affect the growth and profitability of the public transport business in Nairobi. Therefore there is a knowledge gap that this research intends to fill.
CHAPTER THREE

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter gives the various methods used to carry out the study and to gather the necessary information. It gives the study area, target population, sample size, research design, sampling procedure, and the description of the research instruments. It also discusses the data collection and analysis procedure.

3.2 Study Area

The study area of this research was public transport business in Nairobi a case of Langata/Rongai route. Langata/Rongai route serves passengers from the Nairobi railway station to Rongai. The route is characterized by stiff competition in service delivery and profitability between the ‘Nissan matatu’, the mini-buses and the ‘Manyangas’. This competition is expected to help improve the service delivery and maintain fair PSVs fares in the route. The route serves 19 kilometres from the city centre and has various collection stages.

3.3 Target population

The target population of this study included all the PSV owners, drivers and conductors of the Langata / Rongai route. There is an approximate 240 PSVs plying the Langata / Rongai route (area MWA records). Each of the public service vehicles directly employs two people (Asingo, 2004).
3.4 Sample Size And Sampling Procedure

The sample for this study was drawn through a mixture of methods in a multistage sampling procedure. The study targeted 110 informants as follows: 60 PSV drivers (a simple majority) and 40 conductors and 5 of the PSV owners (10% of 52) and 5 traffic police officers who man the Langata- Rongai route. The targeted PSV drivers and conductors must have served on the route for more than a year. This was possible because the new road safety rules require that ‘every PSV owner shall employ his driver and conductor on permanent basis’. The sample size was considered appropriate based on the grounds that social researchers agree that on the extreme, 30 cases are generally regarded as minimally adequate for statistical data analysis, with most recommending at least a 100 (Singleton 1993).

The table below shows the total number of PSV units and the sample distribution of drivers and conductors serving the Langata/Rongai route.

Table 1 sample distribution of PSV drivers and conductors of Langat/Rongai route

<table>
<thead>
<tr>
<th>PSV vehicle Description</th>
<th>Units</th>
<th>Sample distribution</th>
<th>Drivers 60%</th>
<th>Conductors 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nissan -14 passenger sitter</td>
<td>200</td>
<td>83</td>
<td>50</td>
<td>33</td>
</tr>
<tr>
<td>Minibus- 25 passenger sitter (manyanga)</td>
<td>30</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Bus- 35 passenger sitter (city hopper)</td>
<td>10</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Total PSV Units</td>
<td>240</td>
<td>100</td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>

Source: OROKISE SACCO records and the researchers own computations
Formula for sample distribution
No. of units in a strata X Sample size
Total PSV Units

Formula for drivers' distribution
60% X Total sample size for each stratum

Formula for conductors' distribution
40% X Total sample size for each stratum

The key informants were the PSV owners and the traffic police officers implementing the new road safety rules on the Langata / Rongai route.

To come up with the sample size proposed above, a multistage sampling method will be adopted. The Langata/Rongai route 'matatu' association’s membership list and the MVOA list was used as the sample frame. Below are the steps that will be used to come up with the sample:

- The first stage was a purposeful sample of Langata / Rongai route as the focus of the study. The reason for purposively sampling Langata Rongai is because it is characterized by stiff competition between the newly introduced minibuses, 'manyangas' and the 'Nissan matatus'. Majority of the customers served by the route are upper-middle class people who insist on a well-organized public transport system from their residential areas to Nairobi city center where most work.

- Secondly, a list of all PSVs plying the route and the PSV owners was compiled from the association’s office. The list acted as a sample frame for the study. The names of the drivers and conductors who have served for more than one year and the PSV owners will be extracted.
• In stage three, using simple random sampling, 60 PSV drivers, 40 conductors and 8 PSV owners were drawn from the strata as shown in the table and interviewed.

The key informants will be the owners of PSVs plying the Langata/Rongai route.

3.5 Research Design
The research design was descriptive. Descriptive research includes surveys and fact-finding enquiries. The major purpose of descriptive research design was to give an explanation of the state of affairs, as it exists at present (Kothari, 1999). The researcher applied this design to investigate the current situation pertaining to the constraints affecting the growth and profitability of the public transport business in Nairobi.

3.6 Data Collection
3.6.1 Data Collection Instruments
Data from both secondary and primary sources was collected. Primary data was collected by administering questionnaires to Langata / Rongai route PSV drivers, conductors, owners and police officers manning the route. The questionnaire was a useful tool in collecting data that cannot be obtained through observation. The questions also allowed respondents the freedom in answering questions and the chance to provide in-depth responses. Questionnaires also contained simple but straightforward directions for the respondents so that they may not feel any difficulty in answering the questions (Kothari C. 2000). They also took less time to fill. However, for those who indicated inability to comprehend the questionnaire, the researcher and her assistants used the questionnaire to conduct a face-to-face interview.
3.6.2 Data collection procedures

An introduction letter from the Kenyatta University was obtained to enable the researcher to administer questionnaires to the sample. Confidentiality in handling of responses was assured to the respondents. The questionnaire was administered during the off peak hours when the respondents are less busy. A polite deadline was suggested. After the stipulated period, the filled questionnaires were collected ready for the analysis.

3.7 Data analysis

Both descriptive and inferential statistics was used to analyze the data to meet the objectives of the study. Qualitative data mainly form the respondents was collapsed into categories, meanings extracted and appropriate coded categories adopted so that the themes and patterns were established that made it possible to extract meanings from the results. Quantitative data which mainly responses to close ended questions, was analyzed using the computer statistical package for social sciences (SPSS).

Quantitative analysis will involve the use of percentages, frequencies and mean to determine the effects of the road safety rules on public transport business. The data will be presented in the form of contingency tables, frequency, percentage distribution, graphs and charts as will be appropriate. This will be done after editing and coding editing and coding.

3.8 Data presentation

Data will be presented in the form of tables, frequencies, percentages and mean to show the constraints affecting the growth and profitability of the public transport business in Nairobi and calculation of percentage of the respondents per effect shown.
3.9 Expected output

The findings of the study was able to show to what level the constraints affect the growth of the public transport business, the organizational structure of the public transport industry, and how the regulatory framework has affected the profitability of the public transport industry. It also showed the level of training for drivers and conductors.
CHAPTER FOUR

RESEARCH FINDINGS

4.1.0 Introduction

The purpose of this study was to investigate the constraints affecting the growth and profitability of public transport business in Nairobi. A case of Langata/Rongai route. In this chapter, findings of the study from the research objectives investigated are presented. The study was conducted by use of two questionnaires. The first category of respondents was PSV drivers and conductors on Langata/Rongai route. The other instrument was administered to PSV owners and traffic police. Responses were received from 66 drivers and conductors and 23 key informants.

From the research objectives used in the study, four aspects were to be examined to investigate the constraints affecting the growth and profitability of the public transport business in Nairobi. The first aspect gives both social and economic general characteristics of the respondents. The second consideration was the organizational structure of the PSV business in Nairobi. The assumption was that the type of organizational structure in the PSV industry may have a positive effect on the profitability and growth of the business.

The third aspect was to assess the role of the regulatory framework in promoting profitability and growth in the public transport industry. The expectation was that regulations play a vital role in enhancing profitability in the PSV industry.
The fourth variable considered was the nature of training acquired by the drivers and conductors of the public service vehicles and its impact on performance. The prediction was that, acquired professional driving skills and other related skills would influence performance positively. In addition, the study would seek to establish the problems affecting the growth and profitability of the public transport industry form the perspective of the key players in the industry which includes the drivers, conductors, PSV owners and the traffic policemen.

Descriptive analysis of the questions is explored in the study. Tables show frequencies and percentages, while charts show visual presentation of the data where deemed necessary.

4.2.1 Determinant Factors

With the theoretical perspective applied in this study, priority determinant factors identified were the organizational structure of the public transport business, the role of regulatory framework, problems faced by the PSV business and training and ethics for drivers and conductors. It was predicted that these factors would explain the constraints affecting growth and profitability of the PSV industry.

4.2.1 Socio-Economic Characteristics of the Respondents

The study examined the socio-economic characteristics of drivers and conductors in the PSV through the following aspects: age, gender, formal education, and marital status, number of dependants as well as length of the service in the industry as indicated on the tables below:
Table 4.1: Age Group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>20-30</td>
<td>41</td>
<td>66.1</td>
</tr>
<tr>
<td>30-40</td>
<td>18</td>
<td>29.0</td>
</tr>
<tr>
<td>50 plus</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.1 above shows that majority of the respondents (66%) are in the age bracket of 20-30 years, 31% are above 30 years of age and only 3% are 18-20 years.

Table 4.2: Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>56</td>
<td>87.5</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.2 above indicates that an overwhelming 86% of the respondents were male while only 13% were female. The PSV business is therefore dominated by male with only a small percentage are female.

Table 4.3: Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>14</td>
<td>21.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>33</td>
<td>50.8</td>
</tr>
<tr>
<td>College</td>
<td>16</td>
<td>24.6</td>
</tr>
<tr>
<td>University</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 4.3 above indicates that majority (51%) of the PSV drivers and conductors are secondary school leavers, 25% had a college education and only 3% had a university education.

Table 4.4: Marital status

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>35</td>
<td>53.0</td>
</tr>
<tr>
<td>Single</td>
<td>31</td>
<td>47.0</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.4 above illustrates that a small majority of 53% of the respondents are married while a close 47% are single.

Table 4.5: Number of Dependants

The table below illustrates that the PSV industry is characterized by considerably young people with 1-2 dependants only. Only 8% of the respondents had above 4 dependants.

<table>
<thead>
<tr>
<th>Number of children</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>25</td>
<td>69.4</td>
</tr>
<tr>
<td>2-4</td>
<td>8</td>
<td>22.2</td>
</tr>
<tr>
<td>4-6</td>
<td>2</td>
<td>5.6</td>
</tr>
<tr>
<td>Above 7</td>
<td>1</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.6 below illustrates that majority of the respondents 82% had served in the PSV industry for two and above years. This is an indication that they are well versed with the industry with the operations in the industry through working experience.

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1 year</td>
<td>12</td>
<td>18.5</td>
</tr>
<tr>
<td>1-2 years</td>
<td>28</td>
<td>43.1</td>
</tr>
<tr>
<td>over 2 years</td>
<td>25</td>
<td>38.5</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.3.0 The Organizational Structure of Public Transport Business

The research explored the nature and organization of the public transport business. It sought specifics on management, remuneration and returns on investment. The results are tabulated below.

Table 4.7: Management of PSV Routes

<table>
<thead>
<tr>
<th>Who manages psv routes?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLB</td>
<td>45</td>
<td>81.8</td>
</tr>
<tr>
<td>MOA</td>
<td>7</td>
<td>12.7</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>5.5</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From table 4.7 above the respondents overwhelmingly (82%) understood that PSV routes are managed and controlled by TLB. The least number (18%) said that the management is on other hands other than TLB.
Table 4.8: Presence of Route Cartels

<table>
<thead>
<tr>
<th>Are there route cartels?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>30</td>
<td>55.6</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>44.4</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.8 above indicates that 56% of the respondents acknowledged the presence of route cartels controlling the route on a day-to-day basis.

As illustrated by the chart 4.1 below, most respondents felt that these cartels affect their earnings negatively since a certain amount has to be paid out to the cartels on daily basis. Such payouts reduce the profit margin for the PSV owners.

Chart 4.1: Effects of Cartels on Earnings

![Chart 4.1: Effects of Cartels on Earnings](chart.png)

Table 4.9 below illustrates that the presence of cartels on the route is stressful and demoralizing to the crew, that cartels prevent new entrants to the route, affects fares charged, waste time and reduces performance.
Table 4.9: Effects of Route Cartels on Crew Performance

<table>
<thead>
<tr>
<th>Effects of Cartels On Performance</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressful/demoralizing</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Preventing new entrants into the route</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Affects fares charged</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Wastes time</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Reduces performance</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Chart 4.2: Gross Monthly Pay for PSV Drivers and Conductors

As clearly illustrated on chart 4.2 above, majority of the PSV staff earn between Ksh 5000-9000 per month. Few earn less than Ksh 5000.
4.3.2 The Role of Rules and Regulations in Promoting Efficiency and Profitability in the Public Transport Industry

This section explored the effects of the road safety reforms on road accidents, total earnings, profits and the cost of general maintenance. The results are shown in the tables and figure below.

Table 4.3: Effects of Road Safety Reforms on Road Accidents

<table>
<thead>
<tr>
<th>Have reduced highly</th>
<th>Have increased</th>
<th>Remained the same</th>
</tr>
</thead>
<tbody>
<tr>
<td>92</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Chart 4.3 above clearly illustrates that road accidents have reduced highly in the face of road safety reforms. Only 7% of the respondents said that the number had remained unchanged.
Before the introduction of the new reforms, accidents such as shown by the photograph above were common. The new reforms have therefore helped reduce such accidents.

Table 4.10: Perceived Changes in Profits

<table>
<thead>
<tr>
<th>Level of profits</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>15</td>
<td>31.3</td>
</tr>
<tr>
<td>Decreased</td>
<td>23</td>
<td>47.9</td>
</tr>
<tr>
<td>No change</td>
<td>5</td>
<td>10.4</td>
</tr>
<tr>
<td>Slightly increased</td>
<td>5</td>
<td>10.4</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>100.0</td>
</tr>
</tbody>
</table>

It is evidenced by the table 4.10 above that a simple majority (48%) of respondents have experienced a decline in profits, while 31% had experienced an increase in their profit margins with the introduction of the new road safety reforms. 10% had seen no change and a similar proportion saw a slight increase in profits.

Table 4.11: Causes of Change in Profits

<table>
<thead>
<tr>
<th>Reasons for change in profits</th>
<th>Frequency</th>
<th>Percent of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced Capacity</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>High cost of maintenance</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Reduced speed resulting in fewer trips</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Increased fuel cost without rise in fare</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>High cost of compliance</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Too many PSVs leading to high competition</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Bad roads</td>
<td>5</td>
<td>7.5</td>
</tr>
<tr>
<td>Reduced accidents and vehicle damage as a result</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Total Responses</td>
<td>67</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 4.11 above illustrates that the main reason for decline in profits after the introduction of the new road safety rules is reduced vehicle capacity, reduced speed resulting in fewer trips, increased cost of maintenance, increased fuel cost and high cost of compliance with the new regulation i.e. installation of safety belts, speed governors, TLB and city council licenses other responses included, increased competition from ‘minibuses’ and ‘manyangas’ which have a greater sitting capacity, poor roads and reduced accidents.

Table 4.12: Perceived Changes in Total Earnings

<table>
<thead>
<tr>
<th>Total earnings</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have increased</td>
<td>24</td>
<td>42.1</td>
</tr>
<tr>
<td>Have reduced</td>
<td>26</td>
<td>45.6</td>
</tr>
<tr>
<td>Remained the same</td>
<td>7</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.12 above indicates that the total earnings got from the PSVs have gone down as testified by 46% of the respondents. They have increased for 42% of the respondents. More investigations should be carried out on factors that may cause this disparity.

4.3.3 Problems that Hinder the Growth of Public Transport Industry

This part of the study sought to identify the main problems that afflict the main players in the public transport industry. The main players included in this study included the PSV owners, drivers, conductors and the police officers manning the Langata/Rongai route.
Table 4.13 lists responses from PSV crew and table 4.14 those from the key informants.

### Table 4.13: Problems Faced by PSV Crew

<table>
<thead>
<tr>
<th>Problem</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police harassment</td>
<td>35</td>
<td>22.2</td>
</tr>
<tr>
<td>Low pay / poor terms of service</td>
<td>24</td>
<td>15.2</td>
</tr>
<tr>
<td>Bad roads</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Arrogant or uncooperative passengers</td>
<td>13</td>
<td>8.2</td>
</tr>
<tr>
<td>Long working hours</td>
<td>13</td>
<td>8.2</td>
</tr>
<tr>
<td>Traffic jams</td>
<td>12</td>
<td>7.6</td>
</tr>
<tr>
<td>Carjacking or insecurity</td>
<td>11</td>
<td>7.0</td>
</tr>
<tr>
<td>Competition or low business</td>
<td>7</td>
<td>4.4</td>
</tr>
<tr>
<td>Mistrust by employers</td>
<td>6</td>
<td>3.8</td>
</tr>
<tr>
<td>High cost of driving license and uniform</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td>No time to socialize with friends and family</td>
<td>4</td>
<td>2.5</td>
</tr>
<tr>
<td>Frequent breakdowns of the PSVs</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>Accidents</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>No adequate parking space at terminus</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>Stiff government regulations</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>No life assurance cover</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Strikes</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Careless road users</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td><strong>158</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The table 4.13 above shows that the main problem faced by the PSV crew is police harassment which takes the form of demand for bribes and impounding of the vehicle or other documents unnecessarily as well as too many uncoordinated police blocks on the route, poor
terms of service which take the form of undefined terms of service, poor roads, arrogant and
uncooperative passengers, long working hours and traffic jams. Other sited problems included
car jacking, increased competition, harassment by employer, cost of uniform and budges and
lack of free time to socialize. The least mentioned problem was found to be careless road
users, accidents, parking space problems and strike interferences.

Chart 4.4: Length of Working Hours

<table>
<thead>
<tr>
<th>Daily Working Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 hrs</td>
</tr>
<tr>
<td>15</td>
</tr>
</tbody>
</table>

Chart 4.4 above indicates that 85% of the PSV workers work for between 10 – 12 hours and
above a day while only 15% work for the standard 8 hours.
Traffic jam as a result lack of parking space and poor roads and lack of proper control is also a problem for the PSV industry as indicated in the photograph above.

**Chart 4.5: Overtime Allowances and Off-Duty**

<table>
<thead>
<tr>
<th>Overtime and Off-duty for PSV Crew</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Yes</td>
</tr>
<tr>
<td>38</td>
</tr>
<tr>
<td>43</td>
</tr>
</tbody>
</table>

Charts 4.4 and 4.5 above shows that the majority of the PSV crew work for 12 hours and above per day and that they neither benefit from overtime allowances nor off duty or work
leave. This suggests that many Nairobi residents are transported by exhausted, fatigued and stressed drivers on a daily basis.

Table 4.15: Problems Faced by PSV Owners

<table>
<thead>
<tr>
<th>Problems faced by PSV Owners</th>
<th>Frequency Of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor roads</td>
<td>10</td>
<td>17.9%</td>
</tr>
<tr>
<td>High cost of fuel</td>
<td>9</td>
<td>16.1%</td>
</tr>
<tr>
<td>Negligence</td>
<td>8</td>
<td>14.3%</td>
</tr>
<tr>
<td>Police harassment</td>
<td>7</td>
<td>12.5%</td>
</tr>
<tr>
<td>Vehicle breakdown</td>
<td>5</td>
<td>8.9%</td>
</tr>
<tr>
<td>Bribery by conductors/drivers</td>
<td>4</td>
<td>7.1%</td>
</tr>
<tr>
<td>High cost of maintenance</td>
<td>4</td>
<td>7.1%</td>
</tr>
<tr>
<td>High Insurance premiums</td>
<td>4</td>
<td>7.1%</td>
</tr>
<tr>
<td>Traffic jams</td>
<td>3</td>
<td>5.4%</td>
</tr>
<tr>
<td>Over speeding</td>
<td>2</td>
<td>3.6%</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td><strong>56</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 4.15 above shows that majority of the PSV owners experience the problem of poor roads that wear out the vehicles thus increasing the cost of maintenance high cost of fuel negligence. The least problem experienced is over speeding.
Other problems experienced include flouting of the new reforms and regulations by the PSV drivers and conductors as shown on the photograph above. The rules commonly flouted by PSV drivers and conductors are, failure to observe the traffic rules by picking passengers outside the designated areas, not wearing uniform or identification budes as can be seen on the photograph above.

4.3.4 Training Offered To PSV Drivers And Conductors

This aspect of the study sought to find out the nature of driving skills training offered to the PSV drivers and conductors and whether they are offered any other training that may be of importance in their work.
Table 4.16: Respondents who had acquired other training

<table>
<thead>
<tr>
<th>Other Training</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dressmaking</td>
<td>26</td>
<td>53.1</td>
</tr>
<tr>
<td>First AID</td>
<td>12</td>
<td>24.5</td>
</tr>
<tr>
<td>Catering</td>
<td>8</td>
<td>16.3</td>
</tr>
<tr>
<td>Teaching</td>
<td>3</td>
<td>6.1</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100.0</td>
</tr>
</tbody>
</table>

It is shown on the above table that the only other relevant training that the crews have is First Aid although only a minor 24% have it.

Chart 4.6 Drivers Length of Training

Chart 4.6 illustrates that most of the drivers length of training was 3 months while the least (6%) were trained in less than 2 weeks.
4.3.4.1 The Changes That Would Help In Improving The Performance Of The Public Transport Industry

This section of the study sought suggestions on what the government needs to do in order to help improve the performance and service delivery in PSV industry for the purpose of profitability and growth.

Table 4.16: PSV Crew's Responses on What Government needs to do to Improve Performance

<table>
<thead>
<tr>
<th>What government should do</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulate wages and working hours</td>
<td>25</td>
<td>25.5</td>
</tr>
<tr>
<td>Improve roads</td>
<td>20</td>
<td>20.4</td>
</tr>
<tr>
<td>Provide security on the roads</td>
<td>14</td>
<td>14.3</td>
</tr>
<tr>
<td>Tackle corruption in the police force</td>
<td>14</td>
<td>14.3</td>
</tr>
<tr>
<td>Offer life assurance coverage</td>
<td>5</td>
<td>5.1</td>
</tr>
<tr>
<td>Reduce cost of fuel and taxation</td>
<td>4</td>
<td>4.1</td>
</tr>
<tr>
<td>Register union of Matatu crew</td>
<td>4</td>
<td>4.1</td>
</tr>
<tr>
<td>Set up a pension fund</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>Reduce cost of driving license and certificate of good conduct</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Provide uniform</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Responses</strong></td>
<td><strong>98</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

As shown on table 4.16 above, PSV drivers and conductors call on the government to regulate their wages, working hours and terms of service. 20% or the respondents want the roads to be fixed while 14% wants security improved and police harassment tackled. The drivers and conductors would also want life insurance coverage provided to them taxation reduced, PSV
union registered and a pension fund set for them, cost of driving license, and certificate of good conduct and provision of uniform was the least desired change or intervention.

Table 4.17: PSV Owners Responses on What Government needs to do to Improve Performance

<table>
<thead>
<tr>
<th>Suggested government interventions</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve roads</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>Reduce cost of fuel</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Tackle corruption in the traffic police</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Provide government owned driving schools</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Involve the PSV owners in important decisions and policy formulations</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total responses</strong></td>
<td><strong>32</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The key informants suggested improvement of roads as the main change that the government should make so as to improve performance in the public service industry. They also suggested that the government should tackle corruption in the traffic police force, reduce cost of fuel and provide government owned driving schools. Involving the PSV owners in relevant policy formulation was also suggested.
As indicated on the photograph above, the cost of fuel has continued to escalate causing an increase in the operation cost in the PSV industry. It is no wonder that the PSV owners call on the government to control the price of fuel (refer to table 4.17)
CHAPTER FIVE
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 DISCUSSION

This study was carried out at Langata/Rongai PSV route with an aim of investigating the constraints affecting the growth and profitability of the public transport business in Nairobi. It also aimed at identifying measures that can be taken to help alleviate such constraints in order to help improve performance in the industry for profit making purposes. In this chapter, the conclusions drawn form the study finding are discussed and interpreted in the light of constrains affecting the growth and profitability of the PSV business in Nairobi.

Discussions of the findings of this study follow the major research objectives. Five aspects were examined to help investigate the constraints affecting the growth and profitability of the public transport business in Nairobi as follows:

The study examined the socio-economic characteristics of drivers and conductors in the PSV industry which included age, gender, and formal education, and marital status, number of dependants as well as length of the service in the industry.

According to the data presented, an overwhelming majority of 95% of the respondents are in the age bracket of 20-40years (refer to table 4.1 page 2). The study construe that the PSV business is a very demanding industry requiring energetic and youthful players.
As indicated on table 4.2 on page 2, a vast majority of the respondent (88%) were male. Traditionally the PSV business is a predominantly male dominated sector because it is commonly associated with recklessness, roughness and exposure to different kind of dangers i.e. car jacking and accidents. The table further illustrates that due to these dangers, only a minor 12% female have ventured into this business.

According to table 4.3 on page 2, a simple majority (51%) of the PSV crews have acquired secondary education, 25% have acquired college education while only a minor 3% are university graduates. This is evident that the sector attracts the less educated group of people due to the nature of work done. However, due to the high level of unemployment being experienced in the Kenyan economy, a negligible number of university graduates work in the sector for lack of anything else to do or until such a time when other opportunity occur.

In respect to tables 4.4, 4.5 and 4.6, most respondents are married, have 1-2 dependants and have worked in the PSV sector for two or more years. The study deduce that lack of better employment, dire need for daily income to support the dependants and perceived benefits are some of the reasons why conductors and drivers continue to serve in this sector. This concurs with Khayesi, M. (1997) in his report on PSV workers in Nairobi; Thika and Ruiru towns which state that majority of the PSV workers join the industry due to the perceived benefits.

The next aspect sought descriptive responses on the organizational structure of the public transport business. It sought specifics on the management of routes and its effects on investment’s earnings. The data was collected, analyzed and presented on tables 4.7 and 4.8 on page 4. According to the data collected the respondents overwhelmingly indicated that the
routes are managed and controlled by TLB. This is an indication that the government has succeeded in imposing the TLB in the management and control of PSV routes.

The data also indicated a high presence of cartels on the route (refer to table 4.8 page 4). Despite the introduction of the new regulations, cartels still exists on the route. This has affected earnings of the PSV business by disrupting the daily earnings since a certain amount has to be paid to these cartels daily (chart 4.1 on page 5). Cartels are stressful and demoralizing to the PSV crew, they waste time and negatively affect the crew’s performance (table 4.9 page7). This concurs with Chitere (2004) who site cartels as the third major constraint in the public transport business. The presence of cartels even after the introduction of the new roads regulations signifies laxity in the implementation of these regulations.

This aspect also addressed the issue of earnings for PSV drivers and conductors with a view to establishing how earnings affect their performance. As illustrated on chart 4.2 on page 6, a 52% majority of the PSV staff earn between Kshs.5000-9000. The study deduce that the crew’s earnings are low even after over working for 12 and above hours (without overtime pay or leave days) as illustrated on chart 4.4 on page 10. This is due to the existence of cartels. Part of the earnings is used to pay off these cartels which reduce profitability of the PSV business. This concur with IPAR discussion paper No.53 of 2004 that states that the PSV industry is characterized by a plethora of actors, with diverse and sometimes conflicting socio-economic interest resulting in increased cost of running the business.

The aspect of the role of regulation in promoting efficiency and profitability, sought to determine the role played by the road safety rules and regulations in promoting efficiency and
profitability in the public transport industry. The assumption was that rules and regulations would help streamline the operations of the sector. The section explored the effects of road safety rules on road accidents, total earnings, profits and the cost of general maintenance. Regarding this problem, all the items from the section E of the questionnaire in appendix 5, were of interest.

The results are presented on chart 4.3, and tables 4.10, 4.11 and 4.12. These charts indicate that road accidents have reduced significantly with the introduction of the road safety reform as is overwhelmingly illustrated on chart 4.3 on page 7, by 92% of the respondents. This is consistent with Asingo’s (2004) postulate that inadequate road safety measures contributed significantly to the high rates of road accidents witnessed in the country. It is deducible that the introduction of the new reforms and regulations in the PSV industry by the ministry of transport and communication through Legal Notice Number 161 has helped reduce road accidents. According to the Economic commission for Africa (1997) between 16% and 25% of Kenya’s total earning on road transport is lost through traffic accidents. This study further deduce that this situation will change with the continued success in the implementation of the new road reforms as illustrated on chart 4.3 on page 7.

The study further addressed the business profitability in relation to the road safety reforms. Majority of the respondents have experienced a decline in profits with the introduction of the new road safety reforms as indicated in table 4.10 on page 7, a simple majority of 48% of the respondents have experienced a decline in profits with the introduction of the new road safety reforms with only 31% of the respondents experiencing an increase in the level of profits.
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The main reason for this decline in earnings as indicated in table 4.11 on page 8 are, reduced vehicle capacity, reduced speed resulting in fewer trips per day are sited as the major reasons for the decline. Other reasons are, increased fuel cost, increased competition, high cost of maintenance and poor roads. The study concludes that this decline is short lived and that in the long run the earning from the industry will improve after the initial difficulties in the implementation of the new regulations.

According to table 4.9 on page 5, cartels negatively affect the performance of the workers in the PSV sector. The cartels are stressful, demoralizing and time wasting for the workers which negatively affects their performance. The cartels prevent new entrants in to the route despite the fact that the government has licensed them for the route. They affect the fares charged. The study postulates that the presence of cartels on the route negatively affects the growth and profitability of the business.

The third aspect of the present study sought to determine the problems hindering the growth of the public transport industry from the perspective of the PSV owners as well as the drivers and conductors. Data collected from section C of the questionnaire was used to respond to the problem. The data presented in table 4.13 on page 11 indicate that police harassment was the most mentioned followed by poor terms of payment, bad roads, arrogant and uncooperative passengers, long working hours, traffic jams and insecurity were the other reasons mentioned by the drivers and conductors.
IPAR (2004) corroborates the findings to the assertion that police harassment is still prevalent in the PSV industry. This implies that, the new road safety rules have not helped change the attitude of the traffic police.

As illustrated on table 4.15, the PSV owners sited poor roads, bribery by the crew, high cost of fuel, and police harassment as some of the problems they face in the PSV business. High cost of maintenance, high insurance premiums and traffic jams were also sited. Ndungu P. et al (2004) in their report on PSV found out that the cost of operation in the PSV industry are extremely high.

The enormous contribution of the PSV industry to the Kenyan economy can be fully maximized and optimized when the cost of operation is low. This will then translate into cheap prices of transport services. Ndungu further acknowledges that prior to the new regulations, the PSV industry had been operating without proper regulations and comprehensive policy in place to guide it. This research observes that the introduction of new regulations has helped to a certain degree in streamlining the industry and creating some order in its operations.

The next aspect sought to establish whether the PSV drivers and conductors go through any formal training in driving skills as well as any other relevant training that would assist them in their day to day work for the purpose of being more efficient. The data collected from section B of the questionnaire was analyzed and presented on tables 4.16 and chart 4.6 on pages 12 and 13. The results of these tables indicate that most drivers (53%) had gone through formal training for a duration of three months but only 12% of the drivers had any other relevant training which is First Aid. The rest of the respondents have other training that has no
relevance to driving. Such other training included dressmaking catering and teaching as presented on table 4.16.

According to a report by IPAR (2004) poor training as a result of poorly equipped elementary driving schools make Uganda’s fatality rate is 16% per 1000 vehicles, one of the highest in Africa. Vinand et al (2001) also site lack of knowledge on road safety as a key cause of accidents on Kenyan roads amongst other reasons. This hints that drivers’ training is of ultimate importance in reducing road accidents. This study concludes that workers, especially drivers are key to the effective performance of the business. To be able to do so, they need to develop good driving practices and habits that include knowledge of: preventive car maintenance, customer care, first aid, fire fighting, and emergency preparedness, need to know what to do during an accident, car jacking or theft.

5:3:0 CONCLUSIONS

The study findings reached the following conclusions:

The public transport business in Kenya is currently afflicted by several problems. Firstly, from the data analyzed on table 4.7 on page 6, the management of the public transport industry is under the TLB.

From the study findings, there was heavy presence of cartels on the route. This was demonstrated by the fact that 56% of the respondents reported the presence of cartels controlling the route on a day to day basis. Prior to the new regulations, the PSV industry had been marred by groupings with diverse and conflicting interests. The finding of this study led
to the conclusion that road safety rule and regulations have led reduced road accidents (refer to chart 4.3).

The road infrastructure is qualitatively inadequate, the bulk of the road is dilapidated and needs rehabilitation (refer to table 4.15 page 13). Poor coordination of road transport services and implementation of regulations has led to traffic jams delays which have reduced profitability in the industry (refer to table 4.13 and 4.15).

The cost of operation in this industry are extremely high (table 4.15).

Despite the new road safety rules and regulations, police harassment is still prevalent in the PSV industry. From the study, police harassment was sited as the main problem faced by PSV crew (refer to table 4.13 on page 11).

Most drivers length of driving training period was three months (refer to chart 4.6 page 16) however, the only other relevant training that the crew had received was First Aid and only a minor 24% had it (table 4.16 page 14).

5:4:0 RECOMMENDATIONS

Based on the results of the study, the following recommendations were formulated as strategies to influence policy makers and other stake holders in the PSV industry in their endeavor to stream line the industry. This study found out that on the overall, the studied population in general sited several constraints that affect the growth and profitability of the PSV business in Nairobi.
The findings clearly indicated that police harassment cause constraints to the profitability and growth of the PSV industry. The traffic police capacity should be enhanced through training, good pay package, personal insurance cover, and other benefits. The government should come up with a reward system for outstanding performance in the traffic police department to help encourage good performance. Severe punishment for those police officers found guilty of harassment of any kind should also be imposed.

This study further recommends that the Government and the community should work together in enhancing security on the roads to ensure that the PSV business in Nairobi can be carried for 24 hours. Specific police officers should be allocated specific areas, street or even estate and be answerable for any insecurity that is experienced in their area. They will be required to manage security in their respective area.

The government should institute measures to reduce road traffic congestion. This can be done by the government introducing special lanes for vehicles carrying more than three people which will encourage the general public to share their private vehicle in order to enjoy the special lane facility. Heavy taxation should also be imposed on those traveling by vehicles (causing congestion) into the city center. All PSVs should have their terminus in the outskirts of the city center at specifically identified entry points. An alternative means e.g. special government owned buses or tram should be introduced to get travelers to the city center. A special traffic authority should be set up to continuously look into the traffic issues in the city.
The government should establish a national driving school offering training on all classes of driving in order to ensure quality training and inclusion of all relevant areas in the curriculum. All driving schools should have a common curriculum under one umbrella body. The body should oversee all examinations. This will ensure only competent drivers are awarded with driving licenses. There is also need for special training for PSV drivers to update their skills before renewing their licenses.

Cartels should be abolished from all PSV routes to ensure that PSV owners enjoy their earnings without interferences from groups which have no stake in the business.

This research concurs with Howe and Bruceson (2000) who argue that competition between the PSV operating on the same route is crucial as it provides sufficient supply and high frequencies keeping the fares down. This research recommends that the government should encourage healthy competition in the PSV industry as this will ensure that services are improved and passengers are not exploited through a monopolistic type of operation.

The Government and the community should work together with other stakeholders in the industry i.e. the insurance industry, to ensure that insurance cost is brought down to manageable levels. The research findings confirm that the cost of operation in this business is very high. The enormous contribution of the PSV industry to our economy can be fully maximized and optimized when the cost of operation is low which will then translate into cheap prices of transport services. The major cost components are poor roads, corruption, fuel cost and maintenance. To reduce costs of operation the following areas need to be addressed:
• The government should ensure that roads are repaired for smooth flow of vehicles and reduction of operation costs due to poor roads.

• To reduce fuel cost PSVs owners should eliminate middlemen in the fuel supply chain by coming together to form SACCOs and put up their own filling stations.

• In case of the insurance cost, the government should address the issue of compensation and the financial stability of the insurance companies.

• Another strategy to address the insurance problem is to encourage PSV owners to form their own insurance companies to help reduce the operation costs.

• Other charges such as TLB license, city council charges, and certificates of good conduct should also be addressed with a view to minimizing cost.

• The government should also control the importation and cost of spare parts

5:5:0 Suggestions for Further Research

This research was carried out in only one area i.e. Langata/Rongai route hence, I suggest for research capturing other parts especially the rural area so that a coherent report can be drawn to use in implementing the necessary measures of streamlining the PSV industry.
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## APPENDIX 1

<table>
<thead>
<tr>
<th>MATATU' ROUTES IN NAIROBI</th>
<th>North and Southern Nairobi routes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Nairobi Routes</strong></td>
<td></td>
</tr>
<tr>
<td>Dandora 32</td>
<td>Kahawa 44</td>
</tr>
<tr>
<td>Lungalunga area</td>
<td>Githurai 45</td>
</tr>
<tr>
<td>Embakassi 33</td>
<td>Aga Khan 11</td>
</tr>
<tr>
<td>Gikomba 7</td>
<td>Hazina 11</td>
</tr>
<tr>
<td>Umonja 60 / 35</td>
<td>Ngong 156</td>
</tr>
<tr>
<td>Kayole 19 / 60</td>
<td>South C 12 c</td>
</tr>
<tr>
<td>Eastleigh 6 / 9</td>
<td>Madaraka 14</td>
</tr>
<tr>
<td>Eastleigh 4</td>
<td>Langata / Southlands 15</td>
</tr>
<tr>
<td>Ruai 39 / 38</td>
<td><strong>Langata / Rongai 125</strong></td>
</tr>
<tr>
<td>Outering 23</td>
<td>Ngumo 33 / 41</td>
</tr>
<tr>
<td>Kariobangi 28 / 14</td>
<td>Imara Daima</td>
</tr>
<tr>
<td>Kayole 18</td>
<td></td>
</tr>
<tr>
<td>Mwiki 17</td>
<td><strong>West Nairobi Routes</strong></td>
</tr>
<tr>
<td>Roysambu 44</td>
<td>Kileleshwa 48</td>
</tr>
<tr>
<td>Mathare 29 / 30</td>
<td>Kangemi 22 / 23</td>
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<td>Baba dogo 25</td>
<td>Kawangware 46</td>
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<td>Kariobangi 26</td>
<td>Kinoo 30</td>
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<td>Mathare / Gikoba 30</td>
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<td>Jeriko – Gikomba 8b</td>
<td>Nairobi – Riruta-Waiyaki</td>
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<td>Buruburu 58</td>
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</tr>
<tr>
<td>Dandora city stadium 36</td>
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<tr>
<td>Maringo 10</td>
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<td>Kangundo - Nairobi</td>
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Source: ‘Matatu’ Owners Association Of Kenya 2004
## APPENDIX 2

### RESEARCH PROJECT BUDGET

<table>
<thead>
<tr>
<th>1. STATIONERY</th>
<th>KSHS.</th>
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</thead>
<tbody>
<tr>
<td>Ruled A4 paper 5 reams @ Kshs. 300</td>
<td>1500</td>
</tr>
<tr>
<td>Pens (Bic pens) 1 packet @ Kshs. 500</td>
<td>500</td>
</tr>
<tr>
<td>Pencils (HB) 1 packet @ Kshs.300</td>
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<tr>
<td>Erasers ½ dozen @ Kshs.200</td>
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<td>Diskettes 1 packet @ Kshs.200</td>
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<td><strong>Total</strong></td>
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<thead>
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<th>2. SERVICES</th>
<th>KSHS</th>
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<tr>
<td>Keying in and printing 500pgs. @ Kshs. 25</td>
<td>20000</td>
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<td>Photocopying @ Kshs. 3 @ 50@ 10</td>
<td>3500</td>
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<td>Binding</td>
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<td>Traveling: to K.U for proposal writing</td>
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<td>Data collection with assistants</td>
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<td>Research assistants</td>
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<td><strong>Total</strong></td>
<td>47500</td>
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<th>3. LITERATURE REVIEW AND DATA ANALYSIS</th>
<th>KSHS</th>
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<tbody>
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<td>Library (s) service fee</td>
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<tr>
<td>Internet service and downloading</td>
<td>5000</td>
</tr>
<tr>
<td>Pilot study expenses</td>
<td>8000</td>
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<tr>
<td>Subsistence</td>
<td>10000</td>
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<td>Miscellaneous</td>
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<td><strong>Total</strong></td>
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**GRAND TOTAL** 84100
TO WHOM IT MAY CONCERN:

Dear Sir/Madam,

RE: RESEARCH PROJECT: DATA COLLECTION

This is to confirm that the above named is an M.BA student in the School of Business, Kenyatta University, and she/he is embarking on her/his project this semester before she/he completes her/his degree programme.

Any assistance you may accord her/him will be highly appreciated.

DR. G. GONGERA
CHAIRMAN, BUSINESS ADMINISTRATION DEPARTMENT
APPENDIX 4

THE WORK PLAN

<table>
<thead>
<tr>
<th>Activity/Date</th>
<th>Proposal writing</th>
<th>Proposal presentation</th>
<th>Data collection</th>
<th>Data Analysis</th>
<th>Report writing</th>
<th>Report submission</th>
</tr>
</thead>
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<tr>
<td>January 2005</td>
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</tr>
<tr>
<td>July/ August 2005</td>
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Source: Researcher (2005)
QUESTIONNAIRE

KEY INFORMANTS (PSV OWNERS & TRAFFIC POLICE)

The aim of this questionnaire is to help me collect data that will help me write up a research entitled: The constraints affecting the growth and profitability of public transport business in Nairobi. A case study of Langata/Rongai route. Which will lead to an award of a Master of Science (Entrepreneurship) at Kenyatta University.

All response will be confidentially used for the purpose of the study.

A. PERSONAL INFORMATION

1. Name (Optional) ____________________________
2. Age: (18-20), (20-30), (30-40), (40-50), (50-60). (tick as appropriate).
3. Sex: (Male), (Female). (Tick as appropriate).
4. Level of education: Primary ( ), Secondary ( ), College ( ), University ( ), Other
5. Marital status: Married ( ), Single ( ), windowed ( ). (tick as appropriate)
6. No. Of children or dependants: 1-2 ( ), 2-4 ( ), 4-6 ( ), above 7 ( )
7. How many PSVs do you own on this route? ____________________________
8. Vehicle Registration Number (s) - ____________________________
9. Type: Matatu ( ), Manyanga ( ), Nissan ( ), Bus ( ). (Tick and indicate the number appropriate.)
10. Route Number/name ____________________________
11. Years of experience at work or in business _____________ on this route as a:
   Police Officer _____________ Owner _____________

B. ROLE OF PSV IN ECONOMIC DEVELOPMENT

1. Number of vehicles owned: ____________________________
2. Do you operate a business office for management of your PSVs? Yes ( ) No ( )
3. If yes to the above, how many employees have you employed? 2 - 4 ( )
   4 - 6 (6 and above) ( ) Tick as appropriate.
4. Number of people you have employed directly: Drivers ( ) Conductors ( )
   Mechanics ( ) Others ( )
5. Monthly salaries and wages paid to employees ____________________________
6. Gross income earned per month from business: __________________________

7. Net income earned per year __________________________

8. Total insurance paid per month: __________________________

9. Road License cost __________________________

10. City Council charges/ payments __________________________

9. Any cartel payments? Yes ( ) No ( ) tick appropriately

10. If yes, how much? __________________________

11. Taxes paid to be government per year: __________________________

12. What can you say about your living standard?
   Before starting this business: Low ( ) High ( ) tick as appropriate
   After/current time with business: Low ( ) High ( ) tick as appropriate

C. PROBLEMS FACING PUBLIC TRANSPORT

1. Do you face any problems in this public transport business? Yes ( ) No ( ).
   If yes, list all the problems.
   (i) __________________________
   (ii) __________________________

2. How do you solve each of the problems mentioned above?
   (i) __________________________
   (ii) __________________________

3. What would you suggest to the Government to do to help solve these problems?
   Please comment
   i) __________________________
   ii) __________________________

4. What problems do you face with drivers and conductors in the implementation of the new road safety rules Please specify
   i) __________________________
   (ii) __________________________
5. What specific problems do you face with the passengers in relation to the road safety rules? Please specify.

(i) 

(ii) 

6. Do the drivers and conductors comply with the road safety rules? Tick against the rule they comply with
   a) Seat belts
   b) Speed governors
   c) Certificate of good conduct
   d) Display of all the requirements i.e. badges, personal photograph
   e) Wearing uniform
   f) Signature of employer on badges
   g) Working on the indicated route for which he is registered

2. What rules are not complied?

(i) 

(ii) 

What action do you take/ please explain

(i) 

(ii) 

8. Do the culprit offer bribe? Yes ( ) No ( )

If yes explain the actions you take

(i) 

(ii) 

9. What specific problems do you face with the police officers?

(i) 

(ii) 

10. What action do you take for each of the problems?

(i) 

(ii) 

D. STRUCTURE OF PUBLIC TRANSPORT

1. Who manages and controls the PSV routes? TLB ( ) M O A ( ) Others ( ).

2. Who is in charge of allocating the PSV routes? 

3. Are there route cartels? Yes ( ) No ( )
If yes, how does this affect the PSV Business in terms of?

Earnings?
(i) 
(ii) 

4. Performance?
(i) 
(ii) 

5. Growth?
(i) 

6. If No to Q3 how has this affected the business negatively? Please explain
(i) 
(ii) 

7. Positively (Please explain
(i) 
(ii) 

E. NEW REFORMS AND RESOLUTIONS IN THE MATATU INDUSTRY

1. Is the vehicle compliant to the new road reforms and safety rules mainly: (tick where appropriate)
   a) Seatbelts 
   b) Speed governors 
   c) Certificate of good conduct for drivers and conductors. 
   d) Indication of specific routes on yellow band 
   e) Displayed all the requirements by drivers and conductors i.e photos and badges. 
   f) Driver and conductor always in uniform 
   g) Driver and conductors employed on permanent basis. 
   h) Owner’s name indicated on the body of the PSV 

2. Where compliant, how has this affected your business? Explain in terms of:
   Profitability: increased ( ) Decreased ( ) no change ( ) Tick where appropriate
   Any other? Please explain
   (i) 
   (ii) 

2. Efficiency in service provision: increased ( ) Decreased ( ) No change ( ) any other comment?
3. Management: improved ( ) Worsened ( ) no change ( ) Any other comment? Please explain

F. EFFECTS OF REFORMS/SAFETY RULES ON PUBLIC TRANSPORT:

(I) Comment on the accidents
- Accidents reduced highly since introduction of the new road safety rules?
- Accidents have increased
- Accidents have remained at same level. (Tick where appropriate.) If accidents have reduced significantly, state the reasons

(iii) Number of times the vehicle is taken to the service by the owner/driver.
- Increased Significantly
- Reduced Significantly
- Remained Same
If reduced significantly, State reasons

(iv) Cost on general maintenance:
  a) Gone up
  b) Gown down
  c) No change
Give reasons for your response

(v) Fuel consumption per day:
  a) Increased so much
  b) Decreased so much
c) Remained the same

Give reasons for your response
(i)  
(ii)  

(vi) Total earnings to the owner per month:
   a) Have increased
   b) Have reduced
   c) Remained the same

Give reasons for your response
(i)  
(ii)  

(vii) Number of times per year clashed with the police officers:
   a) Gone up
   b) Gone down
   c) Remained the same
   d) Slightly increased

Give reasons for your response
(i)  
(ii)  

(viii) Claims from insurance companies due to risks:
   a) Gone up
   b) Gone down
   c) Remained the Same

Give reasons for your response
(i)  
(ii)  

(ix) Wear and tear of vehicles:
   a) Now reduced
   b) Now increased
   c) No change

Give reasons for you answer:
(i)  
(ii)  

x) Number of trips made per day:
   a) Increased
   b) Decreased
   c) Remained the same
Give reasons:
(i)
(ii)

(xi) Compared before the safety rules were introduced, the level of profits:
   a) Has increased
   b) Has decreased
   c) Remained the same
   d) Slightly increased
Give reasons:
(i)
(ii)

(xii) Security of passengers
   e) Has increased
   f) Has decreased
   g) Remained the same
   h) Slightly increased
Give reasons:
(i)
(ii)

THE END

Thank you very much for your cooperation. A copy of the project will be made available to you on request.
QUESTIONNAIRE
(PSV DRIVERS AND CONDUCTORS ON LANGATA/RONGAI ROUTE)
The aim of this questionnaire is to help me collect data that will help me write a research entitled: The constraints affecting the growth and profitability of public transport business in Nairobi. A case study of Langata/Rongai route. Which will lead to an award of a Master of Science (Entrepreneurship) at Kenyatta University. All response will be treated confidential and will be used only for the purpose of the study.

A. IDENTIFICATION/PERSONAL INFORMATION
1. Name (Optional) _______________________
2. Age: (18-20) ( ) (20-30) ( ) (30-40) ( ) (40-50) ( ) (50>) ( ) (tick as appropriate).
3. Sex: (Male), (Female). (tick as appropriate).
4. Level of education: Primary ( ) Secondary ( ) College ( ) University ( )
5. Marital status: Married ( ) Single ( ) windowed ( ) (tick as appropriate)
6. No. of children or dependants: 1-2 ( ) 2-4 ( ) 4-6 ( ) above 7 ( )
7. Vehicle Registration Number that you drive or are a conductor --------------
8. How long have you worked as a driver or conductor less than 1 year ( ) over 1 year ( ) over 2 years ( )
9. Type: Matatu ( ), Manyanga ( ), Nissan ( ) Mini Bus ( ). (Tick and indicate the number appropriate.)

B. ROLE OF MSE$ in ECONOMIC DEVELOPMENT
1. Gross income earned per month from employment as driver or conductors: ______
2. Net income earned per year: ____________________________________________
3. Total insurance paid per year: ____________________________________________
4. City Council payment: __________________________________________________
5. Payment for certificate of good conduct per year --------------------------
6. Taxes Paid to be government per year: __________________________________
7. What can you say about your living standard?
   Before this employment: Low ( ) High ( ) Tick as appropriate.
   After this employment: Low ( ) High ( ) Tick as appropriate.

TRAINING AND ETHICS OF DRIVERS/CONDUCTORS
   a. Are you trained in driving skills? Yes( ) No ( )
b. If yes, where were you trained?..............................
c. How long was the training? Less than two weeks ( ) Two weeks ( )
   three months ( ) more than three months ( ) tick as appropriate
d. Do you have any other training other than driving that helps you in your
   work as a driver/conductor? Yes ( ) No ( )
e. If yes to Q4 please explain
   i)
   ii)
   iii)

C. PROBLEMS FACING PUBLIC TRANSPORT

1. Do you face any problems in your employment as a PSV driver/conductor?
   Yes ( ) No ( ).
   If yes, list all the problems.
   (i)
   (ii)
   (iii)

2. Which of the mentioned problems affects you most? Please write in the order
   of the most severe problem
   i)
   ii)
   iii)

3. On average how many hours do you work per day? 8 hrs.( ) 10 hrs( ) 12 hrs ( )
   more than 12 hrs ( ) please explain

4. Are there any allowances for overtime? Yes ( ) No ( )

5. Are you in your PSV given off-duties and work leave/annual leave/
   maternity leave/sick leaves? Yes ( ) No ( )

6. Do you give ‘squad’ run to conductors or other drivers? Yes ( ) No ( )

7. Do you experience police harassment? Yes ( ) No ( )

8. If your answer is yes to Q6, please explain how
   i)
   ii)
   iii)
9. How often do accidents occur with your PSV?
   Many times ( ) Few times ( ) Rarely ( ) Never ( )

10. Does your employer have an insurance cover for the drivers/conductors
   Yes ( ) No ( )

11. What would you suggest to the Government to do to make your employment more pleasant?
   i) 
   ii) 
   iii) 

D. STRUCTURE OF PUBLIC TRANSPORT

4. Who manages and controls the PSV routes? TLB ( ) MO A( ) Any other

5. Who is in charge of allocating the PSV routes?

6. Are there route cartels? Yes ( ) No ( )
   If yes, how does this affect the PSV Business in terms of?
   Earnings?
   i) 
   Performance
   i) 
   ii) 
   If No to Q6 how has this affected the business? Negatively? Please explain
   i) 
   ii) 
   iii) 
   Positively (Please explain)
   i) 
   ii) 

E. NEW REFORMS AND RESOLUTIONS IN THE PSV INDUSTRY

11. Is the vehicle compliant to the new road safety rules? (Tick where appropriate)
   i) Seatbelts
   j) Speed governors
   k) Certificate of good conduct for drivers and conductors.
   l) Indication of specific routes on yellow band
   m) Displayed all the requirements by both drivers and conductors: photos & buds.
n) Driver and conductor always in uniform
o) Driver and conductors employed on permanent basis.
p) Owner’s name indicated on the body of the PSV

If not compliant for any of the rules, give reasons
i)
ii)
iii)

12. Do the police officers demand bribes for non compliant? Yes ( ) No ( ) If yes, explain the action you take.
i) Given demand
ii) No change
iii) Gave reasons

13. Do you experience police harassment? Yes ( ) No ( ) If yes explain how
i)
ii)

14. What other problems do you encounter in relation to the new road safety rules? Please explain
i)
ii)

. EFFECTS OF REFORMS/SAFETY RULES ON PUBLIC TRANSPORT:
(I) Comment on the accidents
a) Accidents reduced highly since introduction
b) Accidents have increased
c) Accidents have remained at same level. (Tick where appropriate.)

Give reasons for your answer:
i)
ii)

(iii) Number of times the vehicle is taken to the service by the owner/driver.
- Increased Significantly
- Reduced Significantly
- Remained Same

If reduced significantly, State the reasons
If increased significantly, state the reasons:

i) 

ii) 

iii) 

(iv) Cost on general maintenance:

d) Gone up

e) Gown down

f) No change

Give reasons for your answer:

i) 

ii) 

(iii) 

(v) Fuel consumption per day:

d) Increased so much

e) Decreased so much

f) Remained the same

Give reasons:

i) 

ii) 

(vi) Total earnings to the owner per month:

d) Have increased

e) Have reduced

f) Remained the same

Give reasons for your answer:

i) 

ii) 

(iii) 

(vii) Number of times per year clashed with the police officers:

e) Gone up

f) Gone down
g) Remained the same
h) Slightly increased

Give reasons for your answer:

i) 
ii) 
iii) 

(viii) Claims from insurance companies due to risks:
d) Gone up
e) Gone down
f) Remained the Same

Give reasons for your answer:

i) 
ii) 
iii) 

(ix) Wear and tear of vehicles:
d) Now reduced
e) Now increased
f) No change

Give reasons for your answer:

i) 
ii) 
iii) 

(x) Number of trips made per day:
a) Increase
b) Decrease
c) Remain the same

Give reasons for your answer

i) 
ii) 
iii) 

(xi) Compared before the safety rules were introduced, the level of profits:
a) Has increased 
b) Has decreased
c) Remained the same
d) Slightly increased
Give reasons for your answer
i)
ii)

THE END

Thank you very much for your cooperation. A copy of the project will be made available to you on request.