A SURVEY OF COMPETITIVENESS IN THE PASSENGER ROAD TRANSPORT SECTOR IN NAIROBI-KENYA

BY

MBUGUA, S.

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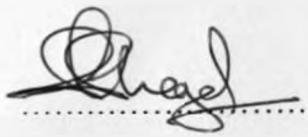
DECLARATION

This research project is my original work and has not been presented for examination to any other university.

Signature  Date 9/11/2009

MBUGUA SIMON

D61/8055/02

This research project has been submitted for examination with my approval as the University Supervisor

Signature  Date 09/11/09

S.N.M. NZUVE

Senior Lecturer & Dean,

School of Business, University of Nairobi

DEDICATION

Dedicated to my dear wife Anne who gave me the nudge to do it.

ACKNOWLEDGEMENT

I would like to express my gratitude to my friends who provoked me with new ideas on different strategies adopted in the *Matatu* industry. I wish to convey special thanks to Mr. Njogu Mungai who gave me the "insider" information of the industry and to Mr. Stephen Nzuve, my supervisor for his patience and professional guidance.

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ABSTRACT

The purpose of this study was to investigate the nature of competitiveness characterizing the low-unit cost, mass market, commuter road transport sector in Nairobi, Kenya. The study had one objective, namely, to identify the key competitive dimensions employed by players in the low unit cost, mass market commuter road transport sector in Nairobi Kenya. The theoretical framework for this study was Michael Porter's Industry Analysis model. This model assumes five competitive forces, which determine the attractiveness of a given industry. These are the barriers of entry into the industry, threat of substitute products, bargaining power of buyers, bargaining power of suppliers and industry rivalry. The Porter's Five Forces Industry Analysis model is a strategy tool that is used to make an analysis of the attractiveness (value) of an industry structure.

The study used a survey design. The population of the study was composed of all public service vehicle owners, operating in Nairobi who are registered under the Public Service Vehicle Owners Welfare Association of Kenya; and the Citi Buses namely Citi Hoppa, Express Connections and KBS; and other formal and informal public commuter transport providers. The sample of study was restricted only to the motorized providers of low unit cost mass-market public passenger road transportation. These included public service vehicle owners registered under the Public Service Vehicle Owners Welfare Association of Kenya and the City Buses. Data was collected by means of a questionnaire. Data analysis was conducted using descriptive statistics.

The study's key finding was that there is a lot of activity in the PSV sector that has influenced the industry's' competitiveness. Of these, the threat from other competitor means of transportation had the lowest levels of activity and determined from the low mean values on all the parameters used as proxies to this threat. The sector was also seen to be very active in employing marketing strategies to enhance competitiveness. The study recommended that the passenger transport sector increase innovative use of alternative means of transportation (or substitutes).

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Road transport plays a significant role in Kenya's economy, carrying 80% of the land transport demand. As a result of steady economic growth over the last decade, traffic on the national highways has grown by 6 to 7.5% per year (The World Bank, 2007a). Private transportation providers who play a major role in connecting major cities of Kenya provide stiff competition to the public providers and have in the past, forced many of these out of business. In the rural areas, where more conventional modes of transport are difficult to come by, people use alternative modes for travelling such as bicycles, animal carts, and trucks which are more available and cheaper.

Nairobi is the capital and largest city of Kenya. It is popularly known as the "Green City in the Sun". Founded in 1899, the city was handed capital status from Mombasa in 1905. Nairobi is the most populous city in East Africa, with an estimated urban population of about 3.5 million in 2007. Buses are the most common form of public transport in Nairobi. Privately owned vans and minibuses are the most popular form of local transport, and generally seat fourteen to twenty-nine passengers. The vans (*matatu*), which are very popular within the city, are easily distinguishable by their extravagant paint schemes. Owners paint their vehicles with their favorite soccer team or hip-hop artists. As competition is very high between matatus, most of the vehicles are fitted with expensive music systems to attract customers.

In the neighboring Uganda, following the divestiture of the Uganda Transport Corporation in 1990, public passenger transport competition is entirely between the private sector using buses, mini-buses and cars which compete among themselves. However, the mini-vans dominate the city services whereas buses, which operate alongside mini vans, dominate the long distance routes. Most inter-regional transport

is still dominated by Kenyan transport companies. Public transport services are available in all areas of the country. Special hire taxis can be found in towns but this offer limited competition. Urban areas lack bus services and hence an investment opportunity exists in this area. Road transport in Uganda is by far the most dominant mode of transport and it plays a pivotal role in supporting the economic and social development programs. The roads in general transport over 90% of the country's passenger and freight, and provide the only form of access to most rural communities (The World bank, 2007a).

In Brazil, the familiar modes of transport of passenger-bus and privately owned motor vehicles also all exist. However, alternative forms, like bicycles and horse-drawn vehicles which are widely used, pose hazards and can be encountered even on major routes. Travel after dark outside city centres poses great danger because of animals and unroadworthy vehicles. (United States Department of State, [USDS], 2007).

In Kenya's public transport, the most significant influence in recent times was the introduction of Government reforms in 2003. Key changes included: Fitting of speed governors in all PSVs and commercial vehicles whose tare weight exceeded 3,048 Kgs to limit speed to 80 k.p.h; fitting of seat belts on all vehicles; employment of drivers and conductors on a permanent basis; indication of route details and painting of a yellow band on *Matatus* for purposes of easy identification; re-testing of drivers after every two years and approval of all driver's identities by the police (Ministry of Transport and Communication [MOTC], 2004). The measures not only streamlined the industry, but increased competitiveness by encouraging more private investors to join. This response was a consequence of the reduced costs and associated risks of doing business in the industry occasioned by these changes.

1.1.1 The Passenger Road Transport Industry in Kenya

Matatu vehicles dominate public commuter transport in Kenya and especially in urban areas. The term *Matatu* is derived from a local Kikuyu vernacular, *mang'otore Matatu*,

which literally means "thirty cents" that was the standard charge for every trip made in the 1970s. Over time, the *Matatu* Industry grew rapidly and by 2003, the number of *Matatus* operating in both urban and rural areas was estimated at 40,000 (Asingo, 2004). They provided employment to nearly 160,000 persons and generated vast revenue for the Government in the form of charges for licenses, duty, VAT and other taxes. In addition, the industry plays a leading part in transportation of both persons and goods in both rural and urban areas.

Unfortunately, the industry's vast growth was accompanied by increasing road traffic accidents that have threatened the safety of Kenyan travelers. The causes of the accidents included reckless driving, non-roadworthy vehicles and poor conditions of the roads. In October 2003, the Ministry for Transport and Communications issued Legal Notice No. 161 that sought to regulate the Public Service Vehicle (PSV) sub-sector. The objectives of the Legal Notice were to: reduce accidents caused by over speeding; enhance safety of commuters; ensure responsibility, accountability and competence of drivers and conductors; eliminate illegal drivers, conductors and criminals that had infiltrated the industry; and facilitate identification of vehicles and restrict their operation to authorized routes (MOTC, Transformation of Road Transport Report, 2004).

As a result of implementation of the provisions of Legal Notice No. 161, cartels have been eliminated or reduced; that is, the new measures have reduced illegal groups and placed management of PSVs in the hands of their owners. New investors are coming into the industry owing to the conducive business environment that has been created. For example, only two insurance companies, Blue Shield Insurance and United Insurance provided insurance cover to *Matatus*. Following the reforms, two other firms, Africa Merchant Assurance (AMACO) and Lion of Kenya have started insuring PSVs. These encouraged risk averse investors to venture into the *Matatu* business and public sector business through lowering the entry barriers and improving administration. New entrants included Express Connection and Citi Hoppa. These new modes of transport are safer, comfortable and are associated with good service quality.

The entry of these new players has resulted to stiffer competition amongst the transport providers. The competitiveness in the industry will be analyses through the lens of the Porter's five forces model.

1.2 Statement of the Research problem

Transport is a major sector of any nation's economy (Hillman, 1992). The significant place it holds reflects the fact that cars are generally seen as the most attractive means of traveling comfortably, quickly, privately and safely; that lorries enable the speedy transfer of goods on a door-to-door basis and with the minimum of double handling; and that air travel is an obvious way of saving time over long distances. Indeed, car use has been described as a barometer of personal independence and living standards, road freight as vital to the economic functioning of business and air travel as an essential component of international communications.

The transportation system is also one of the basic components of an urban area's social, economic and physical structure. One of the major challenges being faced today is the improvement of the quality of service in urban transportation systems in order to make them efficient, competitive and attractive for more and more passengers. The negative perception of the waiting time for the arrival of another PSV vehicle and the existence of delays during a trip can decrease the level of service. The public transportation network should have regular schedules, be safe and guarantee high service quality and efficient resource utilisation.

In most urban areas, it is increasingly difficult for public transport to compete with the private car. An increase in real income has resulted in a higher level of private car ownership and use, and the ongoing process of residential sub-urbanization and employment decentralization experienced in the largest cities has generated a pattern of travel more suited to the private car than public transport. To reverse this trend, authorities have implemented several strategies to promote public transport use. The supply of an integrated and high-quality public transport system has been one of the most favored

options. Clear examples of such a policy are integrated regional public transport systems in Germany, Austria and Switzerland (Pucher and Kurth, 1996).

In so doing, the level of competitiveness amongst the various transport modes has increased, with the basis of competition being aspects to do with cost, convenience, profit margin, reliability, comfort and other qualitative and quantitative considerations. In Nairobi, these dimensions of competitiveness are to be seen in the highly differentiated modes of travel ranging from 14-seater Nissan *Matatus* to large 29-seater and 51-seater buses that have different positioning strategies. The popular Connection Buses, for instance carry the slogan "safety bus", thus positioning themselves as a safe mode of commuter travel. The three bus companies of Express Connection, Citi Hoppa and Kenya Bus Services are favourites among the older generation as they do not have loud music, have courteous staff and are driven at safe speeds. Unlike the 14-seaters, they largely comply with Government transport policy regulations. The former are however popular among the young owing to their music and flashy designs.

Evidently, the level of competitiveness among the transport providers is increased by the various strategies they adopt to attract commuters. Accordingly, the purpose of this study was to investigate the nature of competitiveness characterizing the low-unit cost, mass market, commuter road transport sector in Nairobi, Kenya. Various studies in the local literature exist relating to industry competitiveness (Mwaura, 2002; Karanja, 2002; Gitonga, 2003; Muchilwa, 2004; Ogolla, 2005; Kimani, 2006; Gakumo, 2006; Kenei, 2006; Karari, 2006; Kerama, 2003; Onserio, 2001). None of these researches on competitiveness in the *Matatu* sector which is the research gap that this study sought to fill.

1.3 Research Objective

To identify the key competitive dimensions employed by players in the low unit cost, mass market commuter road transport sector in Nairobi- Kenya.

1.4 Significance of the Study

This study will be of use to public service vehicle (PSV) owners seeking to improve their competitive position in this industry by informing them on the various ways of improving their appeal towards commuters. Also, new investors can use this research to better understand the competitive dynamics in the PSV industry and inform the decisions on the whether to enter the industry and the necessary entry strategies. PSV customers and commuters alike will also be able to understand the various paradigms that different segments of the PSV industry operate on and tailor their custom accordingly. Lastly, the study will be of value in further informing academic research in the area of PSV transport. The research findings may also be useful to the government, the Nairobi City Council and the transport regulatory bodies in planning and to in formulating relevant policy framework in order to effectively respond to the changing demands of the fast changing industry.

CHAPTER TWO: LITERATURE REVIEW

According to the 1999 Kenyan population census, 2,143,254 inhabitants lived in Nairobi. Nairobi is reputed to be the fastest growing city in the World after Guadaloupe, Mexico City (Mexico). The history of public transport system in Nairobi goes back to 1962 when a public bus service was inaugurated following an agreement with United Transport International (Aduwo, 1990). The result of this agreement was the establishment of the Kenya Bus Service (KBS), which was given the exclusive franchise of carrying fare-paying passengers in and around Nairobi. During this time the demand for public transport was low, consisting mainly of European and Asian expatriates and a growing number of African workers.

By 2007, road transport in Nairobi had grown both in terms of the players and the commuters and can be split into five components: private vehicles, buses, Matatu, commuter trains, and taxis. Private vehicles are almost exclusively reserved for the middle- and upper-income groups because of the high cost of purchase and maintenance. Less than one-tenth of Nairobi's three million citizens own cars. Yet traffic is a serious problem due to huge traffic jams.

The traffic situation in Nairobi is composed of 7,500,000 person trips per day translating to 2.5 trips per person. By purpose of the trips 46.5% are for homebound trips, 25% to work, 9.8% to school while other trips e.g. hospital command 18.7%. The mode of the travel is 29% Matatu, 3.7% buses, 15.3% private cars, 1.2% two wheeled mode walking 47%, rail 0.4% and others 4.5% (King'ori 2007)

Main trip flows are concentrated into the central business area from west area of Nairobi and east of Nairobi. A big chunk of the trips from southern also emanate from Athi River and Kitengela areas, which border Nairobi and have lately harbored a big proportion of

people working or trading daily in Nairobi. Ninety three per cent (93%) of traffic at Nairobi boundary originates or arrives at Nairobi, while 7% is pass-through traffic. Passenger cars command about 36% of Nairobi vehicle counts, while 30% are Matatus and buses, 23% are pickup and 4WD vehicles (King'ori, 2007).

The matatus are notorious for their poor safety records, which is a result of reckless driving. Matatu drivers are normally under pressure to make as many round trips as possible to maximize profits for their operators. The more round trips with more customers means more money for the workers and the owners.

There is ambiguity of responsibilities and weak management of organizations in the public transport sector. This leads to loss of time in formulation and authorization of written policy and difficulty in formulating consensus for policy implementation; for a long time there was no consistent legal and institutional framework for regulation, coordination and development management of road passenger transport services. Ministry of Transport (MOT) licenses vehicles, regulates transport service, and formulates national transport. However MOT through its Transport Licensing Board (TLB) does not prepare a road transport plan nor establish standards and regulations. Supervision of licensed operators is left to the Traffic Police who are lethargic leading to indiscipline in urban passenger transport operations. The Nairobi City Council also has a stake in the determination of the transport routes, termini and licensing of operators within the city.

2.1 Porter's Industry Analysis Model

This chapter discusses in greater detail Porter's Five Force Model complete with modes of operationalization of each of the Five Dimensions plus Government with a conceptual framework for illustrative purposes accompanying the discussions. The review also investigates each of the five forces proposed plus Government as proposed by Porter and contextualizes with regard to the public commuter transport service in Nairobi as well in other regions of interest around the world. Finally, the review ends with an appreciation of

the challenges faced by operators in the public commuter transport industry locally and globally.

By introducing the concept of industry analysis, Michael Porter provided insight into structures within different competitive environments. This concept assumes five competitive forces, which determine the attractiveness of a given industry. These are the:

1. Barriers of entry into the industry.
2. Threat of substitute products.
3. Bargaining power of buyers.
4. Bargaining power of suppliers
5. Industry rivalry

The Porter's Five Forces Industry Analysis model is a strategy tool that is used to make an analysis of the attractiveness (value) of an industry structure. The competitive forces analysis is made by the identification of 5 fundamental competitive forces (Porter, 1980) that drive competition within an industry: Entry of competitors: what are the barriers to entry or exit? Threat of substitutes: how easily can a product be substituted? Bargaining power of buyers: How strong is the position of buyers? Bargaining power of suppliers: Do many potential suppliers exist or only a few potential suppliers? Rivalry among the existing players: Is one player very dominant or are all equal in strength and size.

Sometimes a sixth competitive force, Government, is added (Thurlby, 1998). This is probably the most important competitive force in the industry. Ultimately the regulator can shut down an organisation. At a less draconian level, regulation creates the degree of competition and shapes of the playing field. It also controls the commercial, financial and technical behaviour of organisations in other areas of their business. Being able to double guess or influence the Regulator is a means of achieving a more comfortable existence, competitive survival, or, more interestingly, putting competitors on to the defensive by weakening their position. To do this requires enormous amounts of data which has to be collected, analysed and presented.

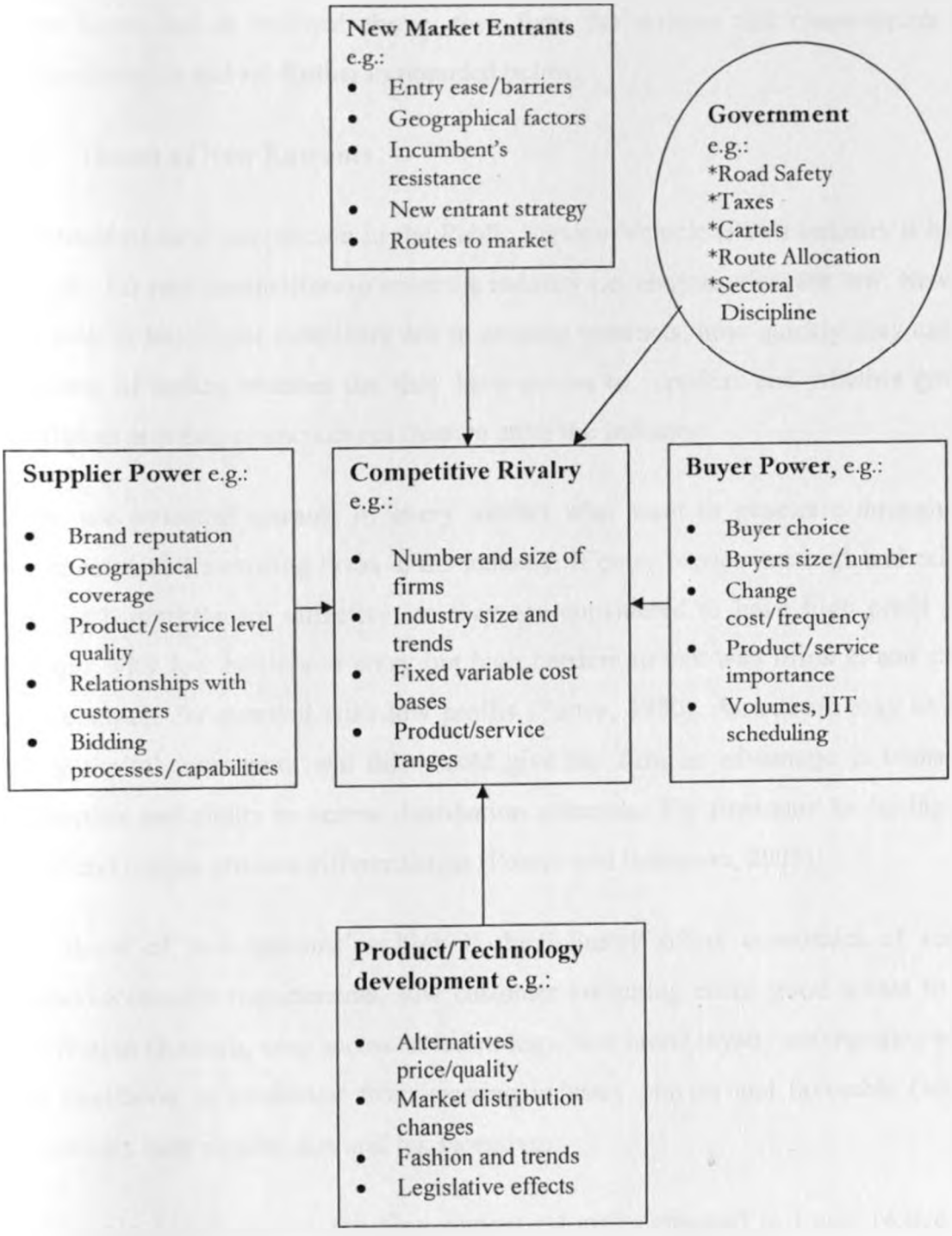
Thurlby (1998) further points out that Porter's model is subject to certain limitations. The first concerns the definition of the boundary of the industry. Is this well defined or fuzzy and, if it is not clear, what is causing the fuzziness? Is it because the industry's shape is changing or because the customer's needs are evolving in a different way from what was expected? Leading on from this first point, there is the whole question of time. The traditional model is static and ignores time. While this was adequate when change was not an issue, this is not the case in the 1990s.

Turbulence is nowadays the most significant dynamic in many industries and, as has been reported in the Management in the Nineties Program (Scott-Morton, 1991), much of an organization's competitiveness is dependent on its ability to change and reinvent itself. The third limitation is the impact of IT. The original models considered IT only as a means of supporting the other forces. IT now has to be recognized as a force in its own right.

Chapman (2005) has operationalized the five forces as per Figure 2.2 (page 8). For new market entrants, Chapman proposes factors such as entry ease/barriers, geographical factors, incumbents' resistance, new entrant strategy and routes to market as strong influences. Influence of supplier power is factors such as brand reputation, geographical coverage, product/service level quality, relationships with customers, bidding processes and capabilities.

Further more, the threat of substitutes is reflected in product/technology development, alternative price or quality, market distribution changes, fashion and trends and legislative effects as influencers. Buyer power has factors such as buyer choice, size and number, change cost and frequency, product or service importance, volumes and Just in Time (JIT) scheduling acting as influencers; competitive rivalry has variables such as number and size of firms, industry size and trends, fixed versus variable cost bases, product/service ranges and differentiation strategy as strong competitive dimensions.

Figure 1 Conceptual Framework: Porter's Five Forces Model plus Government



Source: adapted from Porter, M. E. (1980), *Competitive Strategy Techniques for Analyzing Industries and Competitors*, The Free Press, New York, NY

2.2 The Competing Forces

These forces are as outlined above; they form the domain that characterizes industry competitiveness and are further expounded below.

2.2.1 Threat of New Entrants

The threat of new competition in the Public Service Vehicle (PSV) industry is high when it is easy for new competitors to enter the industry i.e. entry barriers are low. New entrants will look at how loyal customers are to existing products, how quickly they can achieve economy of scales, whether the they have access to suppliers and whether government legislation prevents or encourages them to enter the industry.

There are potential entrants in every market who want to penetrate through lines of weaknesses of the existing firms in the industry. If entry barriers are high and exit barriers low, such markets are attractive, as they are considered to have high profit potential. Markets with low barriers to entry but high barriers to exit trap firms in and such firms only compete for survival with low profits (Porter, 1980). An entrant may be having a heavy capital investment and this would give the firm an advantage in terms of mass production and ability to access distribution channels. The firm may be having a strong brand and unique product differentiation (Pearce and Robinson, 2005).

The threat of new entrants is high if the industry offers economies of scale, high capital/investment requirements, low customer switching costs, good access to industry distribution channels, easy access to technology, low brand loyalty encouraging switching, low likelihood of retaliation from existing industry players and favorable Government regulations such as subsidies and tax incentives.

In Kenya's *Matatu* sector, the Government reforms contained in Legal Notice Number 161 and the subsequent enactment of a transport policy has lowered entry barriers for new operators. In before 2003 when this rule came to force, it was difficult to join the industry due to entry barriers e.g. expensive insurance cover owing to high industry risk and the

existence of route cartels, criminal gangs who demanded entry and protection fees for *Matatus* to operate on given routes or even increase ones fleet size (Kumba, 2005) and police connivance. The Government's continued crackdown on indiscipline in the sector and the war on the criminal elements have encouraged many entrepreneurs to venture into the sector.

Reforms in other sectors of the economy have made it easy for new transportation providers in the low-unit cost mass market transport category. Financial sector reforms have had a particularly huge impact. Reduced Government borrowing from the Central Bank of Kenya led to a reduction in bank lending rates and forced banks to seek alternative investments for their surplus funds. Naturally, the target of these funds has been the ordinary Kenyan entrepreneur. As such, finances are easy to come by and many people have exploited these opportunities to buy vehicles for commercial use. For example, the rapid growth of Express Connections has largely been due to generous financing by the CFC Bank Limited (Kumba, 2005).

Improvements in road infrastructure are another factor that has lowered entry barriers in the public transport sector. Development and maintenance of physical infrastructure are key to economic growth and poverty reduction. Production costs, employment creation, access to markets and investment depend on the quality of infrastructure, especially transport. Road transport is the most widely used means of transportation in Kenya. The fragmentary nature of the railway system and the limitations imposed on the scope of inland water transport by geographical factors mean that transport of people and freight by rail and inland waterways has to be supplemented, usually by road transport over long distances.

Economic incentives that have spurred the introduction of alternative motorized and non-motorized transportation have been spurred by research that demonstrates a clear link between Non Motorized Transport (NMT) and the reduction of poverty in both rural and urban settings (Starkey et al, 2002; World Bank 2002). Intermediate Motorized Transports

(IMTs) are widely used in the developing world, both to improve the efficiency of directly productive tasks, and to serve as a bridge between rural fields and villages and nearby road networks or market towns. The most common form of urban NMT is the bicycle.

Technology can act as a formidable barrier to new entrants since current players who have superior fleet management technology are able to provide consistently reliable services. In Hong Kong provision of free travel information is available at some of the transit stations, in order to assist passengers for better trip planning. For instance, the Kowloon Motor Bus (KMB) termini are equipped with integrated information systems (Tam and Lam, 2005) which provide passengers up-to-date information on destinations, departure times and fares of KMB services. They also keep passengers informed of emergency messages such as those about traffic disruptions. In addition, some of the KMB bus stops are equipped with a built-in computer and a touch-screen panel, which enable passengers to visit KMB's website and obtain bus route information. To beat KMB services, new entrants would have to possess similar or better technological capabilities and competences.

Before the above development, information was usually static in nature, based on vague data and was rarely updated; thus the adjustments to services could not be reflected in a timely manner (Peng and Huang, 2000). With the rapid development of telecommunications technology, many transit operators are now in the process of creating and upgrading their real-time passenger information on the Internet and at transit stations. The goal of the provision of advanced real-time information is to provide travelers with timely and accurate information for adjusting their travel choices. The narrower the technological gap between service providers, the greater the competitiveness in the industry posed by new service providers.

Hickman and Wilson (1995) stated that the provision of real-time transit passenger information might help existing passengers to reduce their uncertainties and assist decision-making in their trip planning. This also helps transit operators to market their services to those who usually travel by private vehicles and enable more efficient use of

the existing transport system. Hickman (2002) also suggested that passengers may perceive a better service quality if credible information on the timeliness of service is provided, particularly when service reliability is a concern.

In the US, Advanced Public Transportation Systems (APTS) have been implemented since 1995. APTS provide passengers with real-time information (e.g., arrival times, departure times and delays) on multiple public transport modes. Passengers can access this information through mobile telephone and the Internet. In Korea, after the implementation of the APTS, both average and perceived waiting times for bus passengers have decreased, while the demand for bus travel has increased (Nelson et al., 2001). Luk and Yang (2001) indicated that transit passengers in Singapore experienced faster boarding times, better route planning and increased accessibility through using the local transit-based Intelligent Transport Systems.

Intercity or long-distance transport in the country presents a picture of general road dominance in both categories of traffic. In order to analyze the energy and environmental impact of intercity rail and road transport in the country, eight representative sections of the country were selected in which the two modes are in competition. Equivalent volumes of traffic were worked out on both modes and the implications seen of shifts of traffic involving these volumes from one mode to another. It was found that there are overall savings in energy use and reductions in environmental pollution when there are shifts of traffic from road to rail in both passenger and freight movement).

Technological advances may permit a futuristic proposed new approach for mobility emerging as an alternative to the private passenger car that tries to offer the same flexibility and much less nuisance based on small automated electrical vehicles. These automatic guided vehicles may be a solution to public transportation systems in specific areas and may complement the mass transit and non-motorized transportation, providing passenger service for any location at any time. This new mobility transportation system is known by the acronym Cybernetic Transportation System. These automated vehicles are

designed specifically for public use in cities and have full autonomous driving capabilities in order to provide an on-demand door-to-door service (Rocha, Cunha, Varandas and Dias, 2007).

Technology is expensive and more so in developing countries. The technology required to effectively manage a large fleet of vehicles while provide real time information to passengers pose a threat to new entrants in the industry who may not have the resources to make this huge investment.

2.2.2 Bargaining Power of Suppliers

Suppliers may gain bargaining power if they are organized; supply non substitutable goods to the market and hence as a cartel, can easily control the market; if they determine the product prices at will, sometimes charging different prices in different market segments and if the product is of such high quality that customers can feel they have received value for money (Porter, 1980). Such a market is not attractive to enter. Suppliers are also essential for the success of a firm. In the transport sector, they provide a service and the underlying emphasis is on service quality. Suppliers do have power that comes from operating in markets with few suppliers and if it is costly for consumers to move from one supplier to another (known also as switching cost) and there are few substitutes for their products, their power increases.

The switching cost of suppliers and firms in the industry, together with volumes of goods or services supplied also determine the suppliers bargaining power. Regulating goods and services into a market can make suppliers push the prices high when goods and services are in little supply and vice versa. If suppliers don't have regulatory power, their power is limited but suppliers with regulatory power may decide to move in a forward integration thus gaining more power and control (Pearce and Robinson, 2005).

Supplier bargaining power comes from: low concentration of suppliers; branding-whether the brand of the supplier is strong; profitability of suppliers; forward integration into the

industry (for example: public service firms set up transport information systems for customers); low threat to suppliers by their clients who do not threaten to integrate backwards into supply; offering high quality products and services; the industry not being a key customer group for the suppliers and low switching costs (easy for suppliers to find new customers).

The bargaining power of suppliers can be so great that at times it pose a political threat to Governments. For instance, in 1986, the Kenyan Government's fear was that the opposition might acquire bargaining leverage by building contacts and power within the transportation sector. Bus, taxi, or truckers' strikes could easily cripple government business and the Kenyan economy. The sector had demonstrated its strength on several occasions before the Government took steps to counteract its power. In 1986, the government announced that it would enforce a "no-standing passenger" rule against PSVs and the Kenya Bus Service Ltd (KBS). Typically, buses carried as many passengers as could crowd into the aisles. The government argued that standing should not be permitted (Widner, 1993).

The KBS Company responded to the ruling by briefly withdrawing bus service from the routes around Nairobi. So great was the resulting disorder and public outcry that the government relented temporarily. To counteract this, the Government began to run state-owned *Nyayo* buses on many routes, the vehicles often being contributed by European donors and the drivers being drawn from the National Youth Service, a government-run vocational training program. These buses charged lower fares supported by Government subsidies and foreign donations. Thus, not only would they mitigate crises due to dependency on a few suppliers, but also they increased industry competitiveness by undercutting the competition on price.

In 1988, the *Nyayo* Bus Services Corporation was established to manage the growing fleet of vehicles, which provided increasing competition to the KBS Ltd. The *Nyayo* Bus Services Corporation faced a much lower cost structure than KBS. All of the vehicles used

by the Corporation were donated, mostly by the Netherlands and Italy. All of the staff members came from the National Youth Service, effectively subsidizing the firm's labour costs. The Economist Intelligence Unit reported in 1989 that Nyayo Bus was the fastest growing enterprise in Kenya. KBS, which not only faced higher costs but found itself forced to abandon several routes because of the eventual successful enforcement of the no-standing rule, was on its way to ruin.

The bargaining power of organized suppliers is also evident in the *Matatu* sector over the same period .The main alternative to bus transport was the *Matatu* system, a relatively unregulated, low-cost form of travel. This part of the sector also proved to have strong bargaining power. In the late 1980s, owners of *Matatus* belonged to one of two associations, the *Matatu* Vehicle Owners Association (MVOA) and the much smaller *Matatu* Association of Kenya (MAK). Drivers were often young and vehicles poorly maintained.

The incidence of fatal traffic accidents was extremely high. In the wake of several horrifying accidents, the Government moved to expand safety standards for the sector but met resistance every step of the way. First, in 1986, a campaign to remove poorly maintained *Matatus* from the road was defeated by the MVOA. Two other attempts at regulating the industry were also defeated; first, in June 1987, an attempt to enforce a policy that *Matatus* be equipped with speed governors to ensure that vehicles did not exceed acceptable limits and second, after a crash that killed 30 people in 1988, to remove poorly maintained *Matatus* off the road and send drivers for retesting.

The organizational framework is largely presently based on route-based *Matatu* associations that demand goodwill from new entrants. Route-based associations keep on springing up, either as new ones or as breakaways from old ones. Stage and route *Matatu* workers have also organized themselves into "labour" groups (Khayesi, 1997). These workers are constantly seen engaged in struggles over vehicles and passengers. The existence of route-based associations does not mean that the sector is disorganized. When a need arises, such as

to challenge an unfavorable legislation, *Matatu* operators get united and work together as a solidarity group. At the national level, there is now a group calling itself *Matatu* Welfare Association (MWA).

The bargaining power of an industry is also dependent on the number of stakeholders and their influence. The *Matatu* means of transport has an array of individuals, businesses and institutions that have stakes in it. The *Matatu* is a business for the low-income and self-employed workers and the affluent in society. There are reported cases of where one individual may own several *Matatus*. There are also other businesses linked to the *Matatu* industry, for example, insurance firms, motor vehicle body builders, vehicle assemblers, vehicle importers, garages, petrol stations, driving schools and commercial banks/money lenders. This means of transport also employs drivers, conductors and stage workers. Increase in bargaining power upstream increase the bargaining muscle of the public transport sector as a whole.

Recent new entrants into the urban commuter transport scene include Citi Hoppa, Express Connections and KBS (revamped after its collapse in 2005). These three are competing against the rest of the urban commuter transport providers on the basis of their superior service quality and branding. These firms position themselves as accessible, competent, courteous, credible, reliable, responsive, secure and customer-friendly, all aspects associated with good service quality (Parasuraman et. al., 1985). These firms have a strategy of building strong reliable brands whose reputation is further enhanced by having friendly customer relations thus enhancing their bargaining power as suppliers. This makes up for the current moderate, but increasing geographical coverage. The smaller minivans also have tried to brand themselves with some building strong associations with the youth through their flashy designs and state-of-the-art sound and video systems playing the latest music.

Finally, supplier bargaining power can be enhanced through forming organized groups. After the official recognition of *Matatus* in 1973, owners nation-wide formed the *Matatu*

Vehicle Owners Association (MVOA) which allocated *Matatu* routes and controlled the operations of the sector (Aduwo, 1992). As earlier seen, MVOA was banned in 1988 by the government on grounds of being used by opposition politicians to further their interests. The associations re-emerged in the late 1990s with the registration of the *Matatu* Welfare Association (MWA) in 2001 and the formation of the *Matatu* Owners Association (MOA) in April 2003. Unfortunately, MWA and MOA do not see eye to eye and this undermines their ability to adequately articulate the interests of *Matatu* owners and thus erodes their collective bargaining power. An umbrella firm, the Public Service Vehicle Owners Welfare Association of Kenya (PoWAK) is attempting to bridge this gap.

There is also the *Matatu* Stage Welfare Association for drivers, conductors and other stage workers and several route-based Savings and Credit Co-operatives (SACCOs) and welfare organizations that pool resources and redistribute them through credit schemes, organize route operations and address members' welfare concerns. Most of the SACCOs were affiliated to larger organizations like MWA and MOA and their officials had good academic qualifications, which partly explain why they are well managed. The route-based organizations were generally stronger than the national bodies like MWA and MOA in terms of financial resource base, organization and control of *Matatu* operations in their respective areas. Consequently, routes have high bidding capabilities.

2.2.3 Bargaining Power of Customers

If there is over supply of goods, buyers may choose what and how much to buy from a supplier at will. If there are substitute products, the buyers may use perfect market information and push for backward integration (Pearce and Robinson, 2005). Over time, buyers gain power when the numbers of suppliers of undifferentiated products increase in a market. As a result buyers become price sensitive and can easily switch to a rival competitor incase of a substantial price increase by a given seller (Porter, 1980).

Thus, buyers can exert influence and control over an industry when: there is little differentiation over the product and substitutes can be found easily; customers are

sensitive to price; and switching to another product is not costly, there is a low concentration of buyers-probably a few dominant buyers and many sellers in the industry, there is low product differentiation (standardized products), customers are making big profits, differentiation of product and services quality encouraging a move towards those sellers offering high quality and ability of buyers to achieve backward and forward integration in the industry.

Price can be said to be the amount of money commuters are willing to pay for transport services. The best competitive advantage in a market is the lowest price. In order for a product to command a reasonable price relative to the market the value chain process contributes to the final selling price. Some sellers use various pricing policies such as cost based while others may use market based approach (Kotler, 2004). In Kenya, the many different types of public service vehicles offer consumers many options with low switching costs. Commuters are highly price sensitive and almost always tend to switch to the lowest costs alternative.

Pricing of fares can be said to be largely demand based, with peak periods experiencing fares almost double those of off-peak periods. Consumers are powerless in the fixing of the fare price and have little choice during these periods as informal sector operators in a market driven sector-implying no Government regulations on fares dominate the industry. It is envisaged that with time, as the more formalized sector players gain market foothold, the fare system will be less volatile and dependent on the whims of the informal players.

Commuters bargaining power is further eroded by the lack of strong consumer associations that may push for better terms or organized consumer groupings that press for more consumer friendly transport policies and services. The only way that consumers can increase their bargaining strength is through consistently boycotting those transport providers who unscrupulously tends to raise fares on the slightest excuse but even these actions, given the excess of demand over supply, does not frequently bear any fruits. As

noted, only when the supply exceeds the demand for transport services will the consumer have a bargaining edge.

Differentiation amongst the transport service providers is fairly high, with the buses tending to provide, on average, better services than their competitors. "Better" here is adjudged on the service provider's conformance to expectation such as on fair fares, reliability, and compliance with the law and so on. Given their formal business infrastructure, replete with company mission and vision (Wamanji, 2007), the three firms of Citi Hoppa, Express Connections and KBS are by far the most preferred mode of transport, limited only by their narrow geographic coverage. 14-seater minivans are on average more expensive compared to the 29-seaters and above and are thus less in demand.

Government regulations sometimes do work in favor of increasing consumer bargaining power. For instance, the provisions of Legal Notice No. 161, while seeking to reform the sector, inadvertently shifted the balance of power towards consumers who were the worst affected by the industry excesses. Service quality was heavily compromised in the pre-reform era, with operators typically squeezing in as many commuters as could practically fit into their vehicles, some even standing between seated passengers. This typically opened avenues for petty crime such as pick pocketing and caused untold inconvenience to many commuters especially schoolchildren. Despite the initial fare hike occasioned by the reforms, many passengers were relieved and happily co-operated to bring order to this once chaotic industry.

The reforms led to an overall reduction in industry risk that in turn witnessed a decline in insurance premiums and increased sale of motor vehicle units for use in the sector. Thus, the initial demand spike was sharply contained through increase in the number of providers. Consumers gained as they today can choose those vehicles known for their quality offerings. As also seen, differentiation is slowly creeping in, adding to the choices available, furthering consumer bargaining power.

2.2. 4 Threat of Substitutes

Where substitute transport modes exist, mainstream public transport service operators should be very careful not to raise their prices above those of competitors in the industry because commuters will easily switch. For that reason, operators in such markets incur low profit margins. Commuters may develop bargaining power if they act as a group and with low switching costs it becomes easier for them (as buyers of the service) to look for alternative suppliers. Such buyers can easily turn to substitute products the moment prices are adjusted upwards (Porter, 1980). In the transport sector, substitutes do tend to be highly differentiated, contrary to Porter's assertion. This may be due to the need to position differently in order to attract customers.

Viable substitutes to the low unit cost local mass-market transport category include alternative motorized transport such as taxis or cabs, motorcycles, mopeds, tri-cycles (*Tuktuk*), private cars, railway and to a lesser extent, air transport. Urban Non Motorized Transport (NMT) alternatives include the bicycle and walking. In a nutshell, potential individuals or firms intending to participate in the transport sector will assess the following parameters: whether there are alternative products that customers can purchase over the current offering that offer the same benefit for the same or less price e.g. motorcycles and tri-cycles as an alternative to four wheeled transport or large fleets that benefit from economies of scale; whether the price of these substitutes falls, motivating consumers to switch; whether buyers are willing to substitute, the quality of the substitute-whether it delivers equal or superior performance and the switching costs.

In planning for the future, only motorized travel appears in transport policy documents to be worthy of consideration. Forecasts extraordinarily exclude these other modes. A significant large group of people walks and cycle to place of work more because of lack of transport fare than choice. Insofar as walking and cycling are considered, in Nairobi, the two tend to be seen primarily in the context of poverty rather than safety or the distance to be covered. As has been noted, attention is focused on public transport as the only

alternative to the car whereas, in fact, journeys on foot are today three times as frequent as those by all public transport modes combined (Hillman, 1992). Over short distances, walking and cycling occupy a superior position in the transport hierarchy owing to their low costs, environmental friendliness and the low risk of injury they pose. However, safety of cycling in Nairobi is compromised for lack of designated cycling paths.

These considerations appear to be totally overlooked in policy and the economies likely to ensue from making provision for them are rendered unlikely to be noticed because of the absence of meaningful data. The convenience and safety of foot and cycle travel have however been reduced still further because patterns of settlement and activity have grown in ways which depend on the availability and use of cars. Every day personal and planning decisions are reached without regard to the implications for the use and attractions of these modes.

Rail and road are the dominant modes of transport all over the world, with very few exceptions. In India, their volumes of traffic have grown steadily over the years. From an initial position of superiority, however, rail has seen its share of total traffic declining in favor of road both for passenger and freight movement (Chaudhury, 2003a

Rail is energy efficient in comparison with road while, except notably for emissions of particulate matter imputable to electric traction, it is environmentally less polluting. A case can therefore be made for policy aimed at modal substitution in favour of rail in intercity traffic, with accompanying efforts at substitution of cleaner sources of energy in electricity generation. Railway services in Kenya are far from becoming a threat to road transport even after the privatisation of the line from Mombasa to Kampala, to a consortium led by Sheltam Railways of South Africa for 25 years.

Apart from running a regular wagon train schedule, the operator will be expected to offer commuter services in Kenya for at least five years. Besides, the operator will pay an annual concession fees equivalent to 11.1% of its gross revenues to the Kenya and Uganda. The Kenya Government will get an additional US$ 1 million (KSh 74 million

annually for the passenger service operations (Kathuri, 2005). Privatisation may lead to railway commuter services posing a significant threat to road commuter services in the long distance transport. However the railway's ability to pose a formidable threat within urban areas especially Nairobi, is however limited by road transports superior geographical coverage and variability that offer buyers greater choice.

Air travel is statistically a very safe means of travel in Kenya, with the main domestic airlines-Kenya Airways, Regional Air and Air Kenya-all running well-maintained fleets of modern and well-maintained older aircraft. Most domestic flights leave from Wilson Airport, except for Kenya Airways and Regional Air's Mombasa services, which fly from the Jomo Kenyatta International Airport. There are approximately 230 airstrips around Kenya, including well-maintained dirt strips in most of the national parks and reserves. The potential for domestic commuter air travel becoming a viable threat to the established road passenger network is low for now given the higher cost of the former.

In China, in spite of rising incomes and choices, the bicycle remains the mode of choice in most cities. Bicycle infrastructure is for the most part in place, the fleet of bicycles continues to rise and the land use structure of cities remains bicycle-oriented. On the other hand, almost every local government is instituting plans and policies to reduce the presence of bicycles in the city. Local leaders perceive the bicycle as a hindrance to modern traffic management. The rapid growth of bicycles, which will slow down the speed of the whole traffic system and increase the accident rate, will lead to a worse traffic situation. The road space conserved can then be allocated to more buses and cars (Xin 1996). Thus far, except for cities in the Pearl River Delta where more draconian measures have been brought to bear to implement the switch to public transport, such policies are having minor success.

While attitudes toward bicycling in African cities vary from country to country, many view bikes as an antiquated form of transport, and far prefer motorized vehicles; yet the reality is that bicycles are a sustainable form of transport, particularly for those of low

income (Mozer, 2000). Researchers have found that bicycle users in Accra and Ouagadougou preferred motorized two-wheeled vehicles (mopeds, scooters, or motorcycles) to bikes. Nevertheless, some found bicycles more appealing than buses due to low cost, speed, reliability, and more flexible routing (World Bank, 2002).

The Kenya Governments decision to offer loans to bicycle taxis known locally as *Boda Boda* in 2004 and previous lowering of import tariffs in 2001 increased their use especially in the suburbs. *Boda Boda* has become an integral part of the transport industry in the region and is a source of employment for many. Giving loans to the bicycle operators had the objective of enabling them expand their businesses and make them more profitable (Pan Africa Bicycle Information Network [PABIN], 2004). With access to this low-cost transportation, children in rural areas can reduce their travel time to school and marginalized groups, such as women, can increase their access to self-employment opportunities.

Removal of import tariffs resulting in lower bike prices enabled more widespread bike ownership among commuters and bike taxi operators, many of whom were renting bicycles. Some bike taxi operators complain that the low price of bikes will lead to an influx of taxi operators, creating too much competition to maintain previous incomes. Others say that this fear is unfounded, due to rising petrol prices that will create more demand for bike taxis. In Uganda, the Boda-Boda is purely an urban phenomenon, where it competes with other motorized and non-motorized modes of transport. Its urban bias has a lot to do with the topography and the fact that bicycles are best suited for flat areas and places where there are sufficient people to create a sustainable market (Calvo, 1994).

In Nairobi, Mombasa and other large Kenyan towns, taxis are widely available, and convenient. Taxis are often parked in the street around hotels and tourist areas. Hotels and restaurants can order taxis if necessary. In the last five years there is a significant increase in the number and models of taxis available in Nairobi. The taxis are now newer models and operated by organised companies that manage a large fleet of cars. This is a marked

increase in their patronage by the middle class who may find the matatu unreliable and not offering personalised service. Taxis are not metered, and a price should be agreed with the driver before departure. In Nairobi and Mombasa there are several companies operating dial-up services with phone bookings, modern vehicles, competent drivers and reasonable rates. Although the number of taxis has increased they do not offer significant threat to the matatu considering their higher fare cost and the large population of low-income urban dwellers who consider single-user taxi transport as luxurious.

2.2. 5 Competitive Rivalry within the Industry

The intense rivalry among the existing competitors would mean that firms might find it difficult to expand market share. Capital cost might be high and hence exit barriers will also be high. Therefore, in order to secure a large market, firms start advertising and price wars become common. Due to this, price reductions occur and by so doing, reduce the margins of the competing firms (Porter, 1980). If entry to an industry is easy, then competitive rivalry is likely to be high. If it is easy for customers to move to substitute products then again rivalry will be high.

Generally competitive rivalry will be high if: there is little differentiation between the products sold between customers; competitors are approximately the same size; competitors all have similar strategies; and it is costly to leave the industry hence they fight to just stay in. A firm carrying huge fixed costs such as a huge fleet of vehicles that is difficult to offload might find it difficult to leave the transport sector in the event of increased competition. It must struggle to analyze the complex information in the market so as to outsmart its rivals in terms of business. If the firm has highly differentiated products and strong brands, it can survive (Pearce and Robinson, 2005).

The summary, industry rivalry is determined by the structure of competition-rivalry will be more intense if there are lots of small or equally sized competitors and will be less if an industry has a clear market leader; the structure of industry costs-industries with high fixed costs encourage competitors to operate at full capacity by cutting prices if needed;

degree of product differentiation-industries where products are commodities (e.g. steel and coal) typically have greater rivalry since the is low product differentiation; switching costs-rivalry is reduced when buyers have high switching costs; strategic objectives-if competitors pursue aggressive growth strategies, rivalry will be more intense. If competitors are merely "milking" profits in a mature industry, the degree of rivalry is typically low; and exit barriers-when barriers to leaving an industry are high, competitors tend to exhibit greater rivalry.

The discussions of the benefits of competition and regulatory reform focus on price and quantity effects in the market under consideration. However, improvements in certain infrastructure services also can stimulate entry and competition in downstream user industries, allowing new firms to enter, incumbent users to offer new products, and rivalry to intensify. To the extent that reform spurs innovations in infrastructure services and these innovations in turn generate substantial new downstream activities, the economy wide benefits of regulatory reform are likely to be substantially greater. As seen earlier, in the transport sector, such activities in the downstream interface such as improvements in the road network will encourage increased participation in the public service sector by potential entrepreneurs. Also, reforms that have introduced order into the Matatu industry through Legal Notice 161 have spurred these initiatives.

There is little differentiation between the transport services offered in the matatu industry, majority of the competitors are small in size with few numbers of units. Therefore competitors have strategies that make the competition very intense. To edge out competitors the entrepreneurs have adopted the below strategies

In order to attract the large population of young people, the *matatus* are designed in fancy designs and flashy colours, and are fitted with expensive music systems with DVD players and christened names of popular singers who the youth can identify with. The newer the unit the more popular it becomes. The most popular vehicles are well patronized by the youth and their income in above those of non-flashy units

Another strategy adopted by the owners of the matatus is to work for long hours. Some city routes operate for 24 hours with the drivers and conductors operating in shifts. This ensures that average income to the owner of the business is doubled.

Various advertising companies have identified advertising space on the exterior walls of the *matatus*. Major company have partnered with large fleet owners to have advertisement posters at the back or side of the vehicles. This is most common in the buses and 29-seater mini-buses operated by firms with large fleet of vehicles. The advertisement posters not only make the buses to stand out but they also augment revenue to their owners.

Branding and franchising is a new concept adopted to fight competition. Franchising is where a franchised product is operated by a franchisee, an independent legal entity, which pays their respective franchisors an initial fee as well as a monthly royalty fee, which is usually specified as a percentage of sales revenue. In addition, franchisees are responsible for investment in the outlet and are expected to closely follow the franchisor's operating norms. Mathewson and Winter (1985) justified the existence of franchising as a solution to both financial and managerial constraints for the franchisor. Franchising mitigates the principal-agency conflict by binding the two parties in a mutually beneficial contractual relationship (Norton, 1988).

Competitive rivalry in the local public transport industry has been heightened by the franchising craze. The KBS brand is back on the road in full gear and the prospects are promising thanks to the emerging franchise trend that is gaining popularity in Kenya. When the older company wound up due to debt pressure, the officials regrouped to set up Kenya's premier transport franchise company. The KBS success has been replicated throughout the transport industry with an increasing number of brand holders turning to this new business trend as a way of doubling their profits. Figure 1, 2 and 3 shows the various brands that have emerged.

There is the benefit of riding on established brands that have build trust and credibility among the commuters who are not privy to the technicalities involved and enable

franchisees to ply the Central Business District without necessarily hustling for the license. With the transport field getting equally murky with the rise of cartels and criminal groups like the *Mungiki* who extort money from players in the sector, many would welcome a formal system with big names for franchise. Only KBS, Express Connections and Citi Hoppa are engaged in the franchise business. Even some of the 14-seaters minivans are actually on franchise albeit discreetly. Another brand, City Metro, has emerged with links to Citi Hoppa and it is targeting the upmarket areas such as Lavington.

However, while the future is in franchising, quality both of service delivery, customer care and reliability will determine who scoops the top honours. Currently there are no special laws controlling public transport franchising, other than an informal request by the TLB that the franchisor be in charge of the vehicles and crew, a situation which is not being observed and is being resisted by the franchisees. Moreover, while previously commuters could be transferred from one bus to another at no extra cost, this is no longer the case because each bus has its own masters (Wamanji, 2007).

There is even competition on the road among the buses of the same brand, something that was not the case before, a situation that is compromising on quality. Most of these people have the *Matatu* mentality and are arrogant on the road. The blame goes to the franchisor; it is the brand and trademark that loses image. Worse, when the franchisor attempts to

Figure 2 *The New Kenya Bus Services Concept*

Figure 3 *The Citta Hoppa Vehicle Brand*

Figure 4 ***The Express Connections Shuttle Concept***

instill order, some franchisees withdraw for the competitor. What is needed are standard rules and laws to regulate transport franchising to minimize chaos. Popular *Matatus* in Eastlands and Langata, too, are attracting informal franchise because of their appealing colors and music and ease of market entry. That way they easily beat the cartels. There are no concrete contracts here. The owner of the vehicle can withdraw anytime; he also has full control of the crew.

Both KBS and Citi Hoppa charge KSh 50,000 as admission fee which covers a period of three years and is renewable. Old vehicles are however not being accepted and their permits are not renewed because of regulations set by TLB who do not want old vehicles in the City Centre and customer demands. KBS charges KSh 2,000 daily as commission plus KSh 50 as legal fees, while Citi Hoppa charges KSh 1,000 commission. Then the franchisee is required to brand in the company design. Competition for potential clients is getting fierce as the three major bus companies jostle for city routes.

The firms have employed sales representatives who are paid commissions of up to KSh 5,000 for every franchise bus they deliver and even higher amounts if the client is poached

from a competitor. Franchisees are expected to follow the etiquette and philosophy of the company, complete with all mannerisms. So people ride on the brands, which have already been established. The franchisors also decide the uniforms, and style of work. In other places they will decide where to get the buses. Taxis are also joining the franchising frays with outfits *Kenatco* making a comeback by leasing their brand name to private car owners. Many other taxi companies are doing the same especially in strategic places like the airport and near tourist hotels.

Citi Hoppa insists on quality service. The firm operates a training centre for staff where they are trained on customer care and service quality. In order to encourage feedback from their customers, the firm prominently displays the vehicle fleet number and customer feedback hotlines to gather information on the reliability of their vehicles (Karuru, 2005). The Express Connections shuttle also position themselves as a quality offering, as seen by the various slogans on the vehicles such as "the safety bus" and "the customer care bus". In order to differentiate themselves, KBS plans to segment its offering by introducing premium shuttle services to upmarket areas of Nairobi such as Lavington.

Integration is a broad concept that includes several issues such as the coordination of service levels, routes and timetables, and a common fare system (Matas, 2004). This is the strategy adopted by the regional government of Madrid, Spain, with the main aim of promoting public transport use and shifting demand away from the private car. Since 1986, passenger transport infrastructure and services have been planned as a complete system. The most significant change was the creation in 1987 of an integrated fare system for the whole public transport network based on a travel card. At the same time, the quality of public transport was improved, mainly through the extension of bus, underground and suburban rail networks.

Some benefits of price integration stem from the reduction of transaction costs for passengers. Rather than contracting with many suppliers, the passenger needs only to buy one document in an integrated transport system (Cassone and Marchese, 2005).

Interchanges become easier to exploit and boarding times are reduced, as some controls can be dispensed with for passengers who have validated their document beforehand. Even if these savings must be balanced against the coordination costs borne by the suppliers, who must often modify their technology in order to enter an integrated price system, it seems likely that some net benefit could arise. In fact the fixed costs required for the start-up of the system can be recovered over time, and are of less concern the larger is the growth in demand stemming from the policy. Price integration tends to reduce the quality gap between public and private (automobile) transport, by increasing the flexibility of the former in meeting customer demand, and is thus credited with broadening the patronage of public transport and reducing competitive rivalry in the sector.

2.2. 6 Government Regulations

The government is a major player in markets and marketing in the sense that it gives the legal rules of the game in a given political environment. Conducive political environments offer security for businesses to thrive. Stringent government regulations introduce checks, such as on substandard or unroadworthy vehicles entering the market, hence protecting citizens from exploitation; or it can be such that the rules are acting against industry players to facilitate ease of trading. The government must also be careful of retaliations between stakeholders and formulate policy on how to handle the consequences (Pierce and Robinson, 2005). Entrepreneurs in rigidly controlled environments tend to get demotivated and labour turn over might be experienced.

The regulatory environment can be both a threat and opportunity in any industry. Take for instance the case of the KBS Company in 2005. The harsh trading environment aside, Legal Notice 161, which announced new regulations for the public transport sector adversely affected the company. The regulations were largely meant to improve the informal *Matatu* sector. KBS was a formal trade but was nonetheless affected. Compliance cost KBS KSh 1.2 billion.

The unplanned expense, including fitting seat belts, installing speed governors, reconfiguring the 272 KBS buses and changing the crew uniforms impacted negatively on cash flows, constraining servicing of debts. The fitting of speed governors followed another expense incurred in calibration of injector pumps, which the TLB had previously endorsed before abruptly making the speed governors compulsory. There was also the licensing of new operators to ply within the Central Business District (CBD) where KBS held a monopoly for a long time. The rules also came with revenue losses for the bus firm related to the banning of standing passengers in PSVs (Munaita, 2005). These developments saw the collapse of the firm in 2005. Competitiveness in the industry was greatly affected during this period which saw the emergence of new players encouraged by the reforms. Fares went up as PSVs sought to recoup the reconfiguration costs and exploit the excess of supply over demand. The bus company withdrew many of its buses, experienced financial difficulties and finally closed down.

Governments may affect public transport competitiveness through legislation aimed at encouraging use of PSVs in lieu of private cars. Research has shown that the acquisition of cars is strongly related to their cost relative to people's income and the rate of growth is related to the growth in the economy (Wootton, 1999). The relationship between the purchase of new cars and their price was also demonstrated in the early 1990's when the then UK Chancellor, Norman Lamont, removed the special car tax to encourage the sale of new cars. The UK, Denmark and the Irish Republic all have had special taxes to increase the price of personal cars, with the net effect of increasing demand for PSVs. The aim of such legislation is to reduce congestion, and pollution among others.

Government taxation policy is a tool that can be used to improve public transport and in creating a viable balance between the various modes of motorized transport. The British Government correctly identified in its first White Paper on transport (Deputy Prime Minister et al., 1998) that taxation is a key instrument in adjusting this balance. Local authorities have now been empowered to use the proceeds of such schemes as congestion charging and workplace parking levies for the improvement of public transport. There are

in fact a number of other ways in which the funding of transport could be diversified and improved like empowering public private partnership (PPP). The quest for balance in the sector will then lead to competitive realignments.

In the UK, Hillman (1992) argues that most critics of the transport policy in the early 1990s argued that one of the key ways of resolving the conflict between traffic growth and its adverse consequences, such as congestion, was to greatly improve public transport. In this way, it was thought that car users could be more easily encouraged to transfer back to public transport, or be obliged to do so with fewer grounds for opposing measures taken by central or local government with this aim in mind. This was always a difficult task given that the car has enabled geographically spread patterns of activity, the great majority of which cannot now be realistically met by public transport.

Policy measures proposed for governments to reduce traffic congestion involve increasing petroleum and car taxes. This would lead to a decline in less essential traffic in urban and rural areas. Such a tax could be introduced almost overnight and would not require high administrative and technical costs. But it is important to realize that, because of the elasticity of demand for transport fuels, the tax would have to be very high for it to reduce the volume of traffic significantly (Ingham, Maw and Ulph 1991) In combination with a package of traffic management measures including traffic calming devices and controls on parking, a high fuel tax would bring an overall reduction in all these adverse effects as well as in congestion in central areas. This would certainly increase demand for PSVs and subsequent competitiveness in the sector.

Another Government policy activity that may affect public transport competitiveness is road pricing (or the toll system) (Brown, 2005). Toll systems are designed to raise funds to finance infrastructure development. Road pricing affects competition by alleviating congestion in and leading to re-location by the motoring public and commerce in order to avoid the inconvenience and extra transport costs. It is the function of Government, through the roads boards, to improve infrastructure. Toll price discrimination that levies

higher prices on private as compared to public transport encourages use of the latter. Additionally, where pricing is based on vehicle tear weight or number of axles will bring about differing competitive pressures among the different modes of PSV transport.

In the case of road building, it is said to lower transport costs, enhance road safety, reduce congestion, lower maintenance costs and avoid wasteful delays and fuel consumption thus reducing pollution and improving the environment. For the PSV industry, low costs mean that fares may go down and those firms that have large fleets enjoy economies of scale meaning that they can undercut the competition through cost leadership. As such, Government policy geared towards improved infrastructure adjusts the basis for competition in the industry. Improvements in infrastructure also permit route diversification since the PSV owners will not avoid routes owing to poor roads or high competition.

The South African Government implemented a system of regulated competition for public transport routes or networks, based on tendered contracts. The replacement of "indefinite" bus permits with a contract system was a radical departure from the existing situation whose impetus arose from a perceived need to corporatise publicly owned bus services, traditionally operated at heavy losses. A primary aim is to reduce the amount which government spends in subsidizing the price of multi-ride tickets.

South Africa's bus industry was at that time in a state of rapid decline and a number of operators had decided to leave, voluntarily and involuntarily, to obtain better investment opportunities. The tender system was therefore viewed as a threat, as it implied that operators in the existing market could experience an increase in competitors. This threat was perceived to materialize not only from within the existing industry, where the possibility exists for smaller operators and even the minibus-taxi industry to enter this domain, but also from possible foreign investors.

The above-mentioned decline in the bus industry also resulted in an outflow of transport expertise and knowledge which made it essential to secure existing expertise within the

industry, and in doing so, to secure the successful implementation of the tender system and the future of the bus industry. It was also essential to increase the existing revenue streams of operators in the industry to enable them to survive in this new environment. This emphasizes the need to determine whether diversification into related and/or alternative businesses represents a viable opportunity.

Other strategies proposed by governments to reduce urban road congestion include encouraging higher densities of land development in city centers and at stops along routes, which will help to aggregate people with similar travel desires. Public transport services can, of course, be given the exclusive use of lanes or tracks, but while this may provide a running time advantage, the journey times will frequently still be uncompetitive because of the time spent waiting and walking. The prohibition of cars from city centers in preference to public transport coupled with increased use of bicycles will help too. Public campaigns to encourage people to change their values and behavior by sensitizing them on the hazards of motorized transport, have been suggested

Pricing mechanisms to control congestion have been proposed with parking charges, fuel tax, tolls and congestion pricing being the most common. But the evidence suggests that the use of cars is comparatively inelastic to price. This means that while charging for use will raise substantial revenue, the charges will probably have to be so high if they are to reduce traffic that they would be politically unacceptable (Wootton, 1999).

2.3 Challenges faced by Entrepreneurs in Competing in the Public Road Transport Sector

The need for change in the public service transportation sector is supported by worldwide trends. Traditionally the responsibility of rendering public transport services lay with the governments involved. Modern trends indicate that the privatization of services have increased decentralization and resulted in the devolution of authority to lower levels of government and organizations. Privatization has also assisted in the rapid transition from an industrial to an information and/or services economy, led to a decline in bureaucracy,

increased competition, lowered prices and growing unemployment owing to greater efficiency in the information environment (Naude, 1998). At the same time cities are being faced with increased urbanization and its related problems (Kwakye, et al., 1998:1).

The lack of funds to support public transport, declining passenger numbers and changing business practices has necessitated policy reviews in many countries. The balancing factors opposing the downscaling of public transport to lower levels are in some cases environmental considerations (Bolade, 1998), pollution, congestion and energy efficiency. Worldwide, the trend appears to be a movement towards public transport contracting. In this way competition is introduced into a traditionally protected industry while maintaining network and service integrities. South Africa is therefore not rushing into something entirely new. What is envisaged has been tried in countries such as England, in a basically similar form. It is significant that although the route-contract system is claimed by the British Government to be a success, the commuters who actually use buses seem less enthusiastic (Naude & Walters, 1999:2;

Throughout the world, governments are realizing that social services may be offered more effectively and efficiently through contracting of services to the private sector. There is also a clear move away from government ownership of assets such as buses, towards private-sector ownership and operations Governments and their transport-related authorities are now specifying service provision and ensuring that such services are offered at an agreed price, level of service and quality of equipment, without ownership of assets being the prerequisite.

A major new campaign by the Kenyan Government has helped to instil a greater sense of safety on Kenya's roads, including the mandatory use of seatbelts and speed governors by all *Matatus*. Despite this, however, the poor condition of roads and famously erratic driving standards continue to make transport by *Matatu* a dangerous and unpredictable business. Owners argued that they incur many costs in running their *Matatu* businesses and this is why they cannot satisfy the expected employment benefits for their workers.

The owners also expressed the view that the workers keep back some of the money they collect to make up for shortfalls in their earnings. The *Matatu* operation costs are actually high. The costs cover such items as purchase deposits, insurance, road licence, *Matatu* route association membership, fuel, tyres, salary, allowance, bribes, vehicle, maintenance and depreciation. A study by Maranga (1989) revealed that due to the many costs incurred, most new *Matatus* rarely made profits. This then partly explains the tendency by *Matatus* to overload and operate at high speeds to offset financial pressure on them.

In addition to the political and economic conflicts in the *Matatu* means of transport, there are social concerns. The *Matatu* sector is an "open" one in which a number of unemployed youth are found assisting or loitering. There is a general decry that the *Matatu* means of transport provides an environment for anti-social activities such as drug taking, pick pocketing, prostitution (which lay implications for the spread of HIV/AIDS virus), violence and thuggery.

Kenya's *Matatu* transport sub-sector is prone to strikes, protests and fatal violence. Violence may erupt when a certain well-established fleet of *Matatus* attempts to operate on a route already served by another organized fleet of *Matatus* or when there is conflict between the owners/operators and cartels. The worst cases of violence in the latter case occurred between the owners/operators and the *Mungiki*, a quasi-religious sect that thrived through extortion of "protection fees" from the informal *Matatu* sector. In the second quarter of 2007, operators in Kiambu protested against harassment by the outlawed group leading to a series of events that culminated in the brutal murders of a number of operators by gang members and subsequent spread of the violence to Nyeri and Murang'a which are the criminal gangs' strongholds.

The sheer brutality of the murders, which entailed decapitation and dismembering by the *Mungiki* was shocking as it was brutal and vividly highlighted the plight faced by owners and operators in the *Matatu* industry. In December 1998, similar violent conflicts on a lesser scale were witnessed at the Railways *Matatu* stage in Nairobi in which life was lost.

Matatus owners/operators also face problems brought about by police harassment and demands for bribes and are constantly up in arms against these practices. In December 1998 a policeman shot and killed a *Matatu* driver and wounded a conductor on Thika road in Nairobi, during one such protest. The *Matatu* operators on this route protested and in the process, innocent commuters and members of the public were harassed and robbed (The Daily Nation, 1998).

The ever-growing competition between the *matatu* has increased the running cost to the *Matatu* owners. The nature of gadgets one has to fit to make the units flashy and noticeable are many and are ever-changing. These gadgets like fashion are changing every season and the owners have to keep pace. The fact that the newer units are more attractive to the users means that the owners have to frequently replace their units much earlier in order to remain competitive. These increases the capital required and maintenance costs in order to favourably compete within a route. *Matatus* have for long been to blame for the high number of road accident deaths in Kenya (Khayesi, 1998). This is due to their propensity to overload and drive at high speeds in order to maximize profits. Overloading of passengers in *Matatus* is partly due to lack of passenger vehicles at peak periods and complicity by the passengers themselves. The high speeds at which these vehicles are driven are partly meant to make more trips, thereby carrying more passengers and augmenting the financial gains. These gains are deemed necessary because of the fact that the *Matatu* business offers direct and indirect financial benefits to the owners, drivers, conductors, commercial banks, insurance companies, local authorities and corrupt traffic police officers. As a consequence of the above, not only do the vehicles wear out quickly but also pose a serious risk on the road resulting in inflated insurance premiums paid by the owners to insure their vehicles.

The results of poor city planning are now evident when one critically examines the long traffic congestions experienced in Nairobi especially during the peak hours. The long traffic jams and lack of spacious designated parking stations within the city result to the matatus being seen as a nuisance within the city center. The city has grown with the

population of both people and the number of cars yet the services and the infrastructure have not grown at the same rate. The *matatus* therefore spend significant time on the jams, which adds to their operational costs.

Generally, in Africa, the poor condition of paved roads, in effect, speaks for the low level of maintenance in the individual countries. And, as road networks have expanded, their institutional and financial burden has tended to increase much more rapidly than the national budget could cater for, especially in times of socioeconomic crisis. Many countries are not able to meet maintenance costs from budgetary resources, let alone to finance investment in new trunk-road systems that meet stipulated requirements and standards according to volume and weight of traffic. Lack of maintenance has left over 50% of the paved roads in Africa in poor condition, and the condition of more than 80% of the unpaved main roads would be considered just fair (Wasike,2001).

The situation in Kenya has not been very different over the years. Albeit the fact that the current Government has gone a long way towards improving the infrastructure, the public commuter transport system has suffered a lot owing to lack of graduated reliable roads infrastructure which has for many years contributed to the high costs of public transport. This has been manifested through the increased costs of vehicle maintained, high unit costs of spare parts, high fuel costs and basically, inflated prices for most commodities that basis of delivery to the consumer is the road infrastructure.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

The study used an investigative survey design. Kotler and Armstrong (2001) observe that this method is the best suited for gathering descriptive information; where the researcher wants to know about people's feelings, attitudes or preferences concerning one or more variables through direct query.

3.2 Population of Study

The population of the study was composed of all public service vehicle owners, operating in Nairobi who were registered under the Matatu Welfare Association (MWA), Matatu Owners Association (MOA) and the umbrella firm, Public Service Vehicle Owners Welfare Association of Kenya (PoWAK)-which brings together the MWA and MOA; Citi Hoppa, Express Connections and KBS; and other formal and informal public commuter transport providers.

3.3 Sample of Study

The sample of study was restricted only to the motorized providers of low unit cost mass-market public passenger road transportation. These included public service vehicle owners registered under the *Matatu* Welfare Association (MWA) and the *Matatu* Owners Association (MOA) and the City Buses, namely, Citi Hoppa, Express Connections and KBS.

3.4 Data Collection Method

Data was collected by means of a questionnaire which consisted of closed-ended questions. This was administered to the respondents using hard copies sent by hand. The 'drop and pick later' was used. The questionnaires were administered to one senior person

in the *Matatu* associations and the City Bus firms mentioned above so as to try and capture sector competitiveness, giving rise to a total of 9 responses. The research instrument used was a 16-page questionnaire administered by the researcher. There were 8 respondents out of the 9 questionnaires distributed, giving a response rate of 89%.

3.5 Data Analysis

Data analysis was conducted using descriptive statistics, which included mean values, standard deviations and frequencies among others. According to Mugenda and Mugenda (1999) descriptive statistics enable meaningful description of a distribution of scores or measurements using a few indices or statistics. Mean values gave the expected score or measure from a group of scores in a study. They informed us on those dimensions of competitiveness that were most significant for each of the competitive positions.

Standard deviations informed the analyst about the distribution of scores around the mean of the distribution. They were indicators of how the respondents agreed or differed with respect to how the competitive dimensions were weighted in determining competitiveness for each of the competitive positions. Frequency distribution showed a record of the number of times a score or record appears.

CHAPTER FOUR: RESEARCH FINDINGS

This section discusses findings in relation to the research objectives. The study employed a five point Likert scale with the rankings "1 = No extent at all to 5 = Greatest extent" to rank the various variables according to the extent of their usage in the different ranks. For each response category, the mean values and standard deviations were computed using SPSS software (version 11.5). Mean values are an indicator of the extent of the degree of the occurrence of competitiveness under each of the six dimensions used in the theoretical framework across the respondent population. High mean values for a given aspect indicate that that aspect of competitiveness was dominant while the converse is also true.

The observed mean values were rounded off to 2 decimal places and assigned a meaning derived from the nearest corresponding point on the Likert scale, e.g. 1 = No extent to 5 Greatest extent. The standard deviation values are an indicator of the extent to which respondents were in agreement over the extent of competitiveness as defined by the various factors as dimensioned. For purposes of this study, standard deviations greater than 1.00 were given to designate a high dispersion around the mean while those below 1.00 were given to designate a relatively high clustering around the mean. The former implies that the respondents differed widely in how they rated the given aspect while the latter implies that they gave largely similar ratings.

4.1 Factors Facilitating Entry of New Investors to the Sector

Table 1 Factors Facilitating Entry of New Investors

Factors	N	Mean	Std. Dev.
Elimination of criminal gangs and cartels on routes	8	4.13	.641
Availability of bank financing	8	3.75	.886
Ease of access to motor vehicle suppliers	8	3.38	.744
Low costs of acquiring the vehicles	8	3.38	1.302
The sector's attractive earning power	8	3.38	1.302
Accessibility of technology e.g. fleet management system	8	3.25	1.488
The low risk of fraud of the owners by operators	8	3.25	1.165
Economies of scale in PSV operation	8	3.13	1.246
Police ineffectiveness in law enforcement	8	3.13	.835
Favorable insurance industry terms and conditions towards the PSV sector	8	3.00	1.069
Government legislative structure	8	3.00	1.414
Availability of routes for operations	8	2.88	.991
PSV owners finding it easy to exit from the industry	8	2.75	1.165
The good state of the roads in Nairobi	8	2.63	1.061
The low customer switching costs in the sector	8	2.38	.518
Government taxation structure targeting the sector	8	2.25	.886
Valid N	**8**		

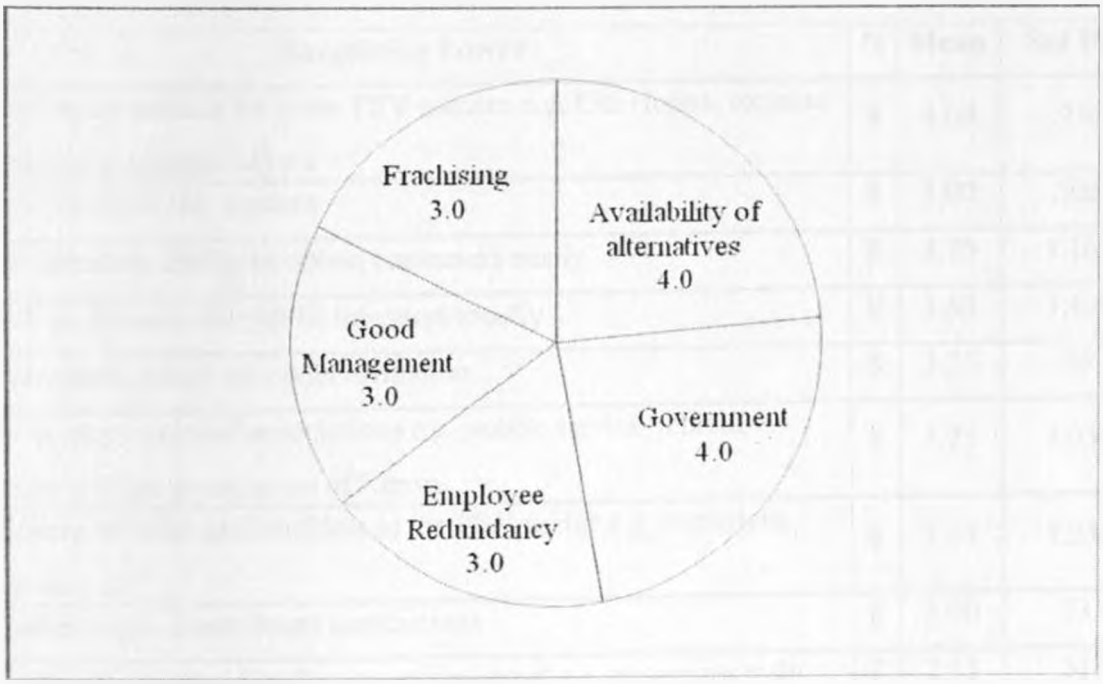
From Table 1, the elimination of criminals had the highest influence on new investors decisions to invest in the sector (mean of 4.13-a high extent), followed by the availability of bank financing (mean of 3.75-also a great extent) then the ease of access to motor vehicle suppliers (mean of 3.38-a fairly high extent). Standard deviations of less than 1.0 for these indicated close agreement among the respondents. This agrees well with Kumba (2005) who has observed that the existence of route cartels encouraged indiscipline in the sector, a fact that kept many an investor at bay. Kumba (2005) also observes that the availability of increased financing did encourage increased investment, a fact borne out by this study. Control of route gangs had the effect of lowering entry barriers encouraging increased investment.

The taxation structure and low customer switching costs with mean values of 2.25 and 2.38 respectively (a moderate extent in both cases) were the factors deemed to have had the least influence on new investor decisions. Low switching costs meant easy access to potential customers. This is a situation that exists in most retail mass market industries such as transport. The low switching cost is a non-issue and reflects the present state of transport in Kenya where demand far exceeds supply. However, other more pertinent factors affecting new investor preferences were for instance, the improvement in the state of lawlessness within the sector. Regarding the taxation regime, the Matatu sector tariffs are competitive do not discourage investments. Standard deviations less than 1.00 for these also indicated a high clustering of the responses about the means.

Other factors identified by the respondents (Figure 5) that facilitated new entrants/ investors to investing in the public service vehicle sector were availability of financing alternatives and Government facilitation (both with a score of 4-a high extent), employee redundancy, franchising and management all with a score of 3 (a fairly high extent) each. Employee redundancy was taken to imply instances where formal sector retrenchments have created an influx of new investors into the informal sector, whereas management was construed as good quality management induced by the public sector reforms. The respondents were not clear on which financing

alternatives were being referred to. According to Porter (1980), favorable Government regulations encourage entry into an industry or sector. Each of these factors was highlighted by one respondent each (or 12.5% of the total respondents).

Figure 5 Other Factors that have Facilitated Entry of New Investors



4.2 Bargaining Power of Public Service Vehicle Owners

From Table 2, branding of Matatu and the liberalized fare system both increased the bargaining power of owners to a high extent (mean of 4.00) with standard deviations less than 1.0 indicating a close clustering about the means. This concurred with Porter's (1980) observation that suppliers may gain bargaining power if they are organized and are able to practice price discrimination (Porter, 1980). Organized groupings are reflected in the various associations meant to cater for the Matatu sectors needs e.g. MOA, MWA and PoWAK.

Branding is a sign of a high level of organization while the liberalized fare systems enable price discrimination. The relatively low number of public transport suppliers in

the market and the availability and number of private means of transport, with mean values of 1.87 and 2.00 respectively (moderate extents), influenced the bargaining powers to the lowest extents. This means that supplier bargaining power least influenced the excess of demand for public transport over its supply as well as by the extent to which commuters are able to command their own individual transport needs.

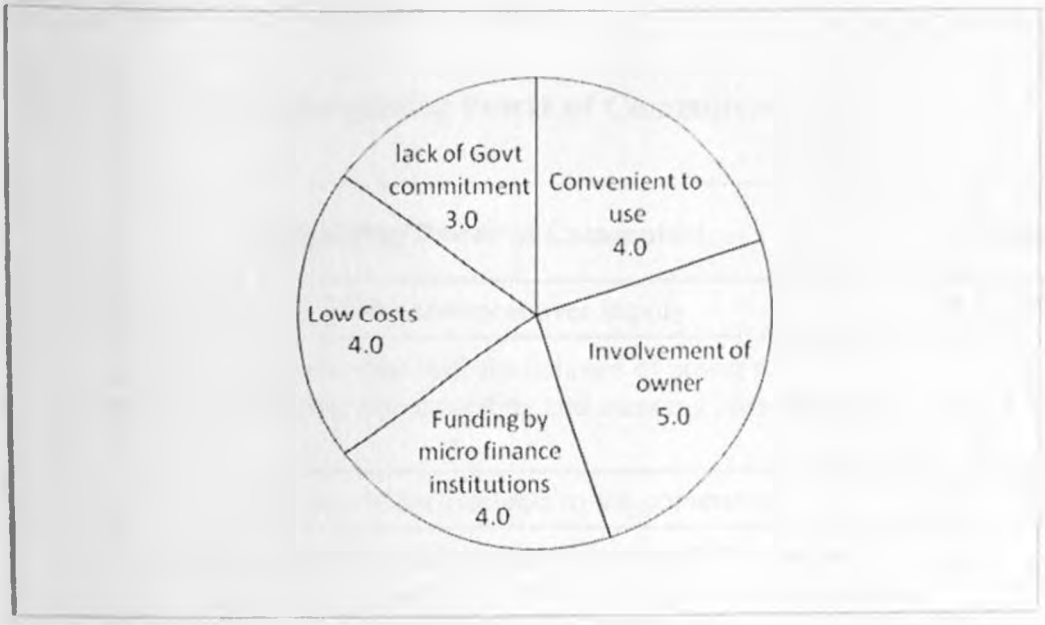
Table 2 Factors Influencing the Bargaining Power of PSV Owners

Bargaining Power	N	Mean	Std Dev
Branding of matatus by some PSV owners e.g. Citi Hoppa, express connections (double M) etc	8	4.00	.756
The liberalized fare system	8	4.00	.926
PSV operators ability to obtain customers easily	8	3.75	1.165
The high demand for public transport locally	8	3.63	1.408
Government policy on cartel formation	8	3.25	.707
PSV owners national associations e.g. public service vehicle owners welfare association of Kenya	8	3.25	1.035
Influence of other stakeholders in the PSV sector e.g. importers, insurance etc	8	3.13	1.246
Membership to route based associations	8	3.00	.535
Availability of subsidized means of transport e.g. passenger train	8	2.63	.518
Quality of service offered by PSV owners	8	2.63	1.061
Ability of the operators to run their own garages and import spares	8	2.63	1.302
Non existence of alternative mode of transport	8	2.38	.518
Level of profitability of the PSV sector	8	2.38	1.061
Availability and number of private means of transport	8	2.00	.756
Relatively low number of public transport suppliers in the market	8	1.87	.641
Valid N	**8**		

Other factors in Figure 6 cited by the respondents as contributing to their bargaining power (included involvement of owners in the sector (score value of 5-a great extent), convenience use of matatu as preferred transport mode, low costs and funding by NGO and micro finance organisations (score of 4 for all-a high extent) and a lack of

Government commitment (score of 3-a fairly high extent). As cited before, involvement of owners leads to a high level of organization and commitment.

Figure 6 Other Factors that Influence the Bargaining Power of PSV Owners



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The lack of Government commitment provides suppliers with discretionary power and these may decide to move in a forward integration thus gaining more power and control (Pearce and Robinson, 2005). The matatu's convenience and low costs convey the perception of high quality that customers can feel they have received value for money (Porter, 1980). These factors then interplay to create an enabling environment for increased supplier bargaining power.

4.3 Factors that have Increased the Bargaining Power of Commuters

The high demand for public transport over supply and Government regulations that

shift the balance of power to consumers (mean values of 3.86 and 3.83 respectively), increased the bargaining power of commuters to a high extent. This agrees well with Porter's (1980) observation that over time, buyers gain power when the numbers of suppliers of undifferentiated products increase in a market. This is the case witnessed in the Matatu sector since its inception.

Table 3 The Bargaining Power of Commuters

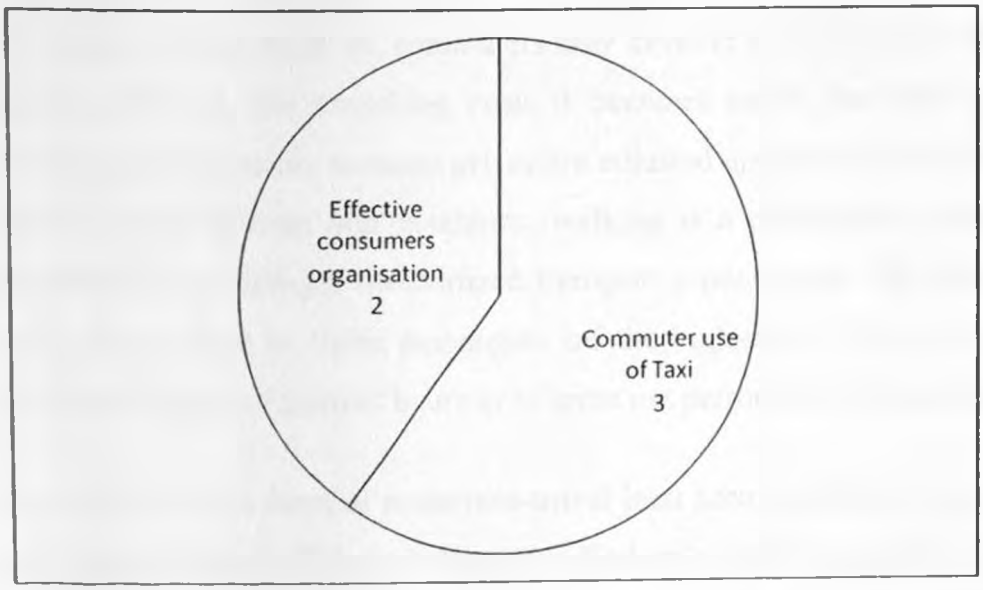
Bargaining Power of Commuters	N	Mean	Std Dev
Excess of demand for public transport over supply	7	3.86	.900
Government regulations that shift the balance of power to consumers e.g. reducing overcrowding and standing passengers in PSV	6	3.83	.983
Wide choice of PSV providers available to the commuters	7	3.71	1.113
Lack of substantive service differentiation among PSV owners resulting in commuters choosing the PSV offering the lowest price	7	3.43	1.397
Passenger willingness to co-operate and boycott services from PSVs that unscrupulously raise fares at the slightest excuse	7	3.14	.690
Commuters ability to buy own vehicles	8	3.00	1.069
Availability of alternative mode of passenger transport e.g. train	8	2.88	.835
Commuters ability to organize through forming national associations	7	2.86	.690
Commuters ability to organize through forming route associations	8	2.75	.886
Valid N	**6**		

However, in absolute terms, there exits an excess of demand over supply on the ground and whereas there is substantial commuter switching based on price competition during off-peak hours, during peak hours, it is a seller's market. The Government regulations in question here were those relating to LNN 161 that sought to bring discipline back into the passenger transport industry. There is no doubt about their impact on increasing the consumers bargaining power.

Commuters' ability to organize through forming national associations and to be organized through forming route associations, (means of 2.75 and 2.86) had the lowest incremental influences on commuters bargaining power. This is an indication

that there are no strong consumer organizations that exist which can advocate for better terms and conditions from the service providers. As observed from the respondents, consumers' main mode of self-expression is by constantly boycotting those providers who overcharge their service offering. Other factors mentioned by respondents as having influenced the bargaining power of commuters included the effectiveness of consumer organizations-score of 2 (or a moderate extent) supporting the earlier observation and the ability of consumers to use taxi-cabs (score of 3-a fairly high extent).

Figure 7 Other Factors that have Increased the Bargaining Power of Commuters



4.4 Threat posed by Alternative Means of Transport

Competition from Taxi cabs was the biggest threat from alternative transport (mean of 2.38) followed by competition posed from walking (mean of 2.25). Standard deviations greater than 1.00 from these two threats reflected wide dispersions of the responses about the respective means implying a wide disparity in opinions among the different customers. Competition from taxis is also cited by one respondent as a source of consumers bargaining power.

Table 4 **Threat from Alternative Transportation**

Threats of Substitute Mode of Transport	N	Mean	Std. Dev.
Competition from the taxi cab firms	8	2.38	1.188
Competition from walking	8	2.25	1.165
Competition from rail based transportation modes	8	2.00	.926
Competition from private vehicles	8	1.88	.835
Competition from alternative motorized transport e.g. motorcycles	8	1.75	.707
Competition from air travel	8	1.50	.756
Competition from alternative non-motorized transport e.g. bicycles	8	1.38	.744
Valid N	**8**		

As Porter (1980) observes, commuters may develop bargaining power if they act as a group and with low switching costs it becomes easier for them to easily turn to substitute products the moment prices are adjusted upwards. Owing to the high traffic density, both of man and machines, walking is a particularly competitive no-cost alternative to passenger mechanized transport especially in the urban setting. Taxis may offer refuge to those passengers on the high-end of the market who may be traveling outside of normal hours or to areas not patronized by Matatu services.

Air travel was the form of motorized-travel least seen as a threat (mean value of 2.25- a moderate extent). This is in line with Kathuri's (2005) argument that the potential for domestic commuter air travel becoming a viable threat to the established road passenger network is low for now given the higher cost of the former. Competition from alternative non-motorized transport e.g. bicycles (mean value of 1.38) was the lowest threat from alternative transport. As Hillman (1992) observes, cycling lacks an enabling infrastructure-designated cycling paths-in urban centers such as Nairobi. This discourages exploitation of any economies that it may confer.

Figure 8 Other Threats from Alternative Transportation

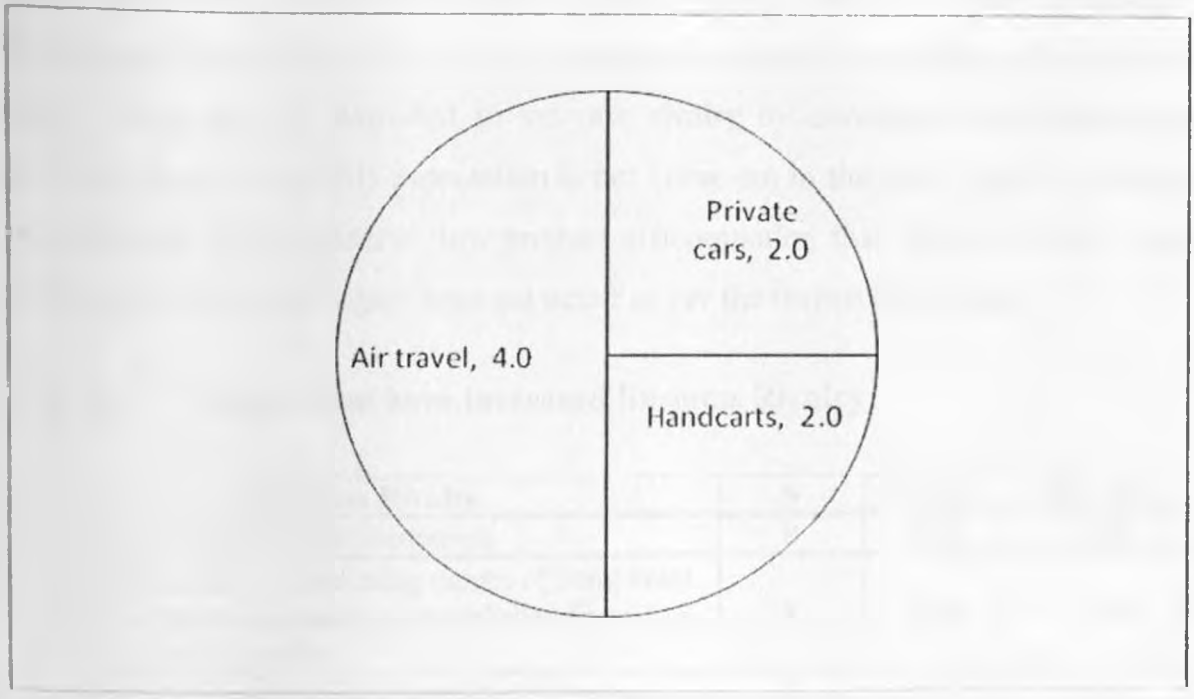


Figure 8 is a pie chart showing the extent of threats and the corresponding percentages from "other" alternative transport modes as identified by the respondents. Air travel constituted the highest threat level (a score of four- a high extent), with private cars and vehicles and handcarts standing at a score of two for each (a moderate extent). Each of these factors was highlighted by one respondent each (or 12.5% of the total respondents) and there fore will be held inferior to the previous responses.

4.5 Business Rivalry

Flashy branding to attract customers and franchising (mean values of 4.00 and 3.88 respectively), were the factors thought to have increased business rivalry to a high extent. These are strategies used to advertise the firm's offering, either directly or through the use of established and respected brand names. Franchising has in particular led to serious competition among the various brands owing to the fact that franchisees insist on having their own crews running the vehicles.

This in turn leads to intense undercutting among vehicles even those of under the same franchise increasing the intensity of business rivalry in the industry as noted by Wamanji (2007). On the other extreme, regulatory reforms (mean of 2.38-a moderate

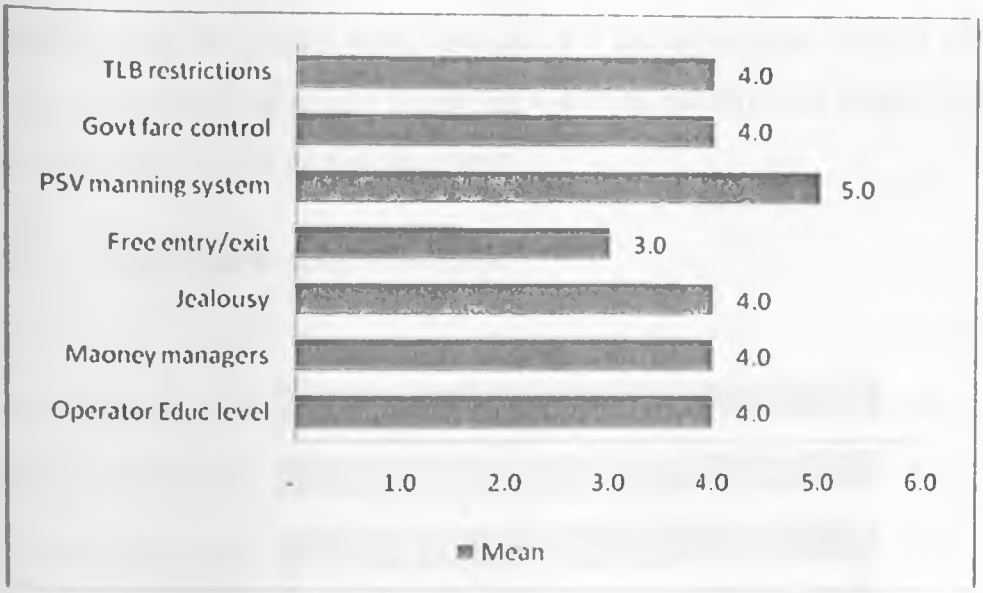
extent) and relatively low differentiation of services offered (mean of 2.50-a fairly high extent) were the factors thought to least influence business rivalry. Regulatory reforms, as contained in LNN 161, were meant to contain the excesses of the informal sector. These may be expected to increase rivalry by attracting new entrants and substitute products but this expectation is not borne out in the study. Again, as Pearce and Robinson (2005) observe, low product differentiation that implies greater rivalry among players, but this again does not occur as per the research findings.

Table 5 Factors that have Increased Business Rivalry

Business Rivalry	N	Mean	Std. Dev
Flashy branding to attract customers	8	4.00	.535
Franchising PSV owners using names of companies registered by other persons or established firms (e.g. KBS) for their operations	8	3.88	1.126
Cartels and groups that seek control of the sector	8	3.87	.835
Companies making use of PSVs to advertise their products or services e.g. Safaricom and Citi Hopper	8	3.63	1.302
Route profitability	8	3.63	1.302
Economies of scale possessed by the large fleets	8	3.50	1.309
The presence of many PSV owners with few vehicle units	8	3.50	1.309
User of similar growth oriented strategies by the PSV owners e.g. flashy comfortable vehicle interior with DVDs and other entertainment	8	3.50	.535
High capital investment in the PSV sector being rather high	8	3.25	1.282
Weak route association	8	3.25	1.753
Infrastructural improvements e.g. road upgrading	8	3.13	.835
Low switching costs for commuters	8	2.50	1.069
Relatively low differentiation of services offered	8	2.50	.535
Regulatory reforms	8	2.38	.518
Valid N	**8**		

Other factors mentioned by respondents as having contributed to increased business rivalry were the educational level of operators and jealousy (scores of 4 for both-a high extent); lack of regulation for entry/exit (score of 3-a fairly high extent); PSV manned by those in authority (score of 5-a great extent); Government controlling fares and Transport Licensing Board (TLB) restrictions (scores of 4 for both-a high extent).

Figure 9 **Other Factors that have contributed to Increased Business Rivalry**



4.6 Marketing Strategies to Influence Customer Choice

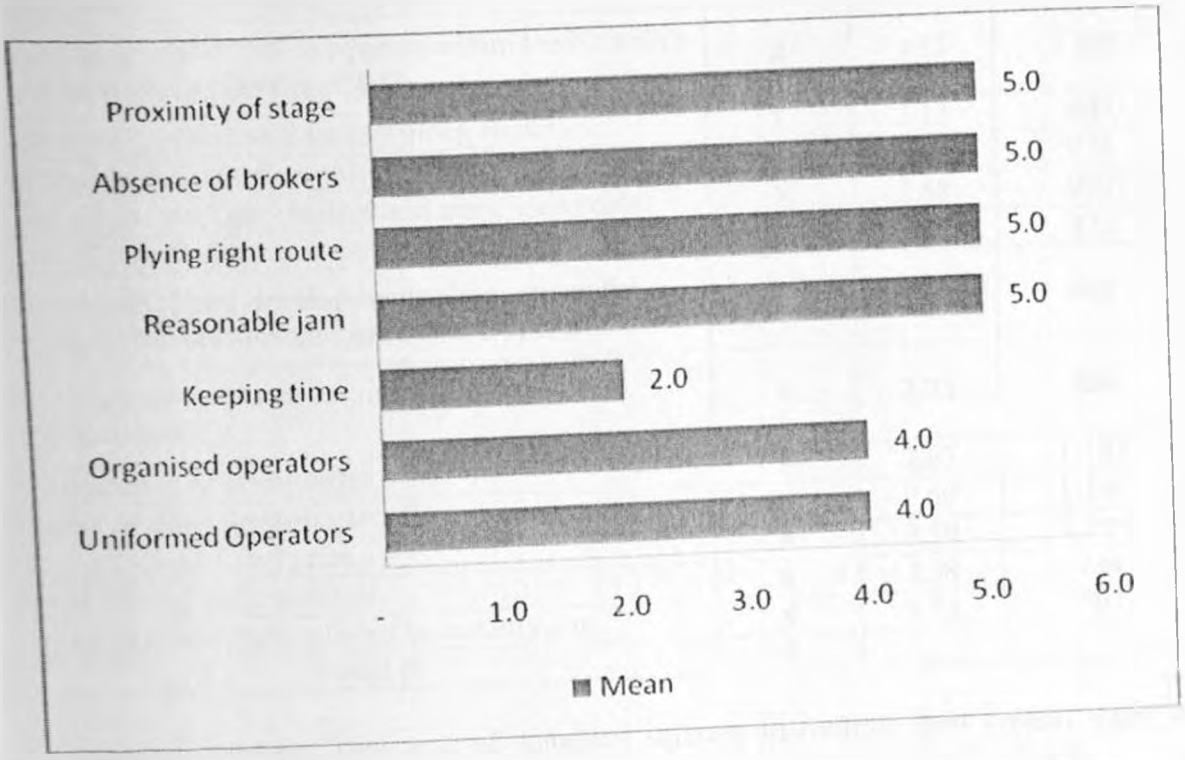
Clean and comfortable vehicle and a clean and neat and friendly crew members (means of 4.63, 4.50 and 4.50 respectively-a great extents), were the marketing strategies that influenced customer choice to board vehicles to the greatest extents. Unique hooting/horn system (mean values of 2.13- a moderate extent) and alloy wheels on the vehicle (mean values of 3.38-a fairly high extent) were the marketing strategies that influenced customer choice least.).

Table 6 **Marketing Strategies**

Marketing Strategies	N	Mean	Std Dev
Clean and comfortable vehicle	8	4.63	.518
Clean and neat crew	8	4.50	.535
Friendly crew members	8	4.50	.535
Newer registration number	8	3.87	.641
DVD system in the vehicle	8	3.75	.707
Young crew of the vehicle	8	3.75	1.282
Powerful and loud music system in the vehicle	8	3.50	.926
Flashy colors and names	8	3.38	.518
Alloy wheels on the vehicle	8	3.38	1.061
Unique hooting/horn system	8	2.13	.991
Valid N	8		

Other marketing strategies cited by respondents included proximity of the stage at Central Business District (CBD), absence of brokering touts, plying the right routes and reasonable jams at certain times (score of 5 for all-a great extent); wearing of uniforms and organized operators (score of 4-a high extent); and finally, keeping to time schedule (score of 3-a moderate extent

Figure 10 Other Marketing Strategies



4.7 Government Policies and Regulations that have Influenced Competitiveness

Route operation restrictions that prevent PSVs from operating on any route (mean of 3.71-a high extent) and banning of standing passengers in PSV (mean of 3.62-a high extent), influenced competitiveness to a high extent. Route operation restrictions may increase competitiveness by raising entry barriers thus 'protecting' the market for vehicles in a given route. As Porter (1980) observes, if entry barriers are high and exit barriers low, such markets are attractive, as they are considered to have high profit potential. Competitiveness among the licensed route providers thus goes up. Banning of standing passengers can then be said to have affected competition through reducing the revenues collected per trip. In turn, this encouraged more trips per vehicle with

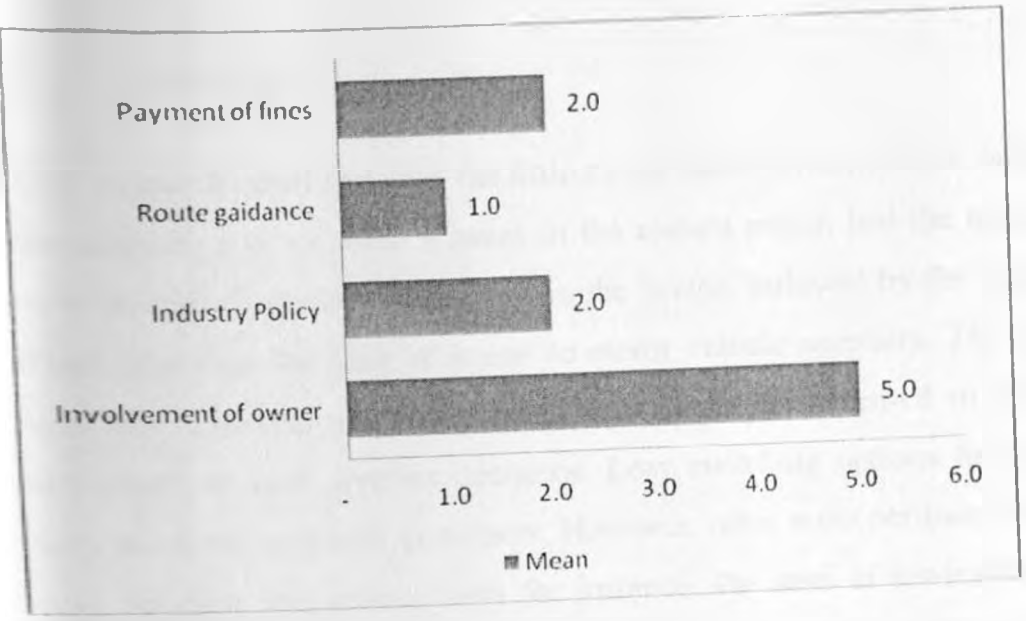
higher subsequent earnings.

Table 7 Government Policies and Regulations

Government	N	Mean	Std. Dev.
Route operation restrictions that prevent PSVs from operating on any route	7	3.71	.488
Banning of standing passengers in PSV	8	3.62	1.061
Removal of unroadworthy vehicles	8	3.25	.886
Licensing of the PSV to operate within the Nairobi's central business district (CBD)	8	3.25	1.165
Outlawing of criminal cartels along routes	8	3.13	.641
Motor vehicle taxation policy	8	3.00	.926
City centre packing charges and associated costs	8	2.88	.991
Use of standard uniform by the matatu crew	8	2.88	.835
Commercial land developments along routes for example the phenomenal growth at Upper hill	8	2.87	.641
Regulations that focus on infrastructure improvements	8	2.75	.886
Introduction of safety belts	8	2.63	1.188
Speed controls through use of speed governors	8	2.50	1.195
Deregulation of fuel prices	8	2.50	1.195
Road pricing (toll) systems	8	2.38	.744
Payment of standard salaries to matatu crew	8	1.75	.707
Valid N	7		

On the other extreme, payment of standard salaries to matatu crew (mean value of 1.75) and road pricing systems (tolls) (mean of 2.38) all influenced competitiveness to a moderate extent. Tolls affect competition by alleviating congestion in and leading to re-location by the motoring public and commerce in order to avoid the inconvenience and extra transport costs (Brown, 2005). These did not affect competitiveness in the local PSV sector though. Other regulations/policy outcomes cited to have influenced competitiveness include the increased involvement of owners in the management of vehicles (score of 5-a great extent), policy framework in the PSV industry and payment of fine by vehicles charged with breaking road regulations (score of 2-a moderate extent).

Figure 11 Other Regulatory/Policies that have Influenced Competitiveness



CHAPTER FIVE: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Conclusions

The research identified that the little threat posed by alternative means of transport, the reduction of criminal's gangs in the matatu sector, had the highest influence on new investor's decisions to invest in the sector, followed by the availability of bank financing then the ease of access to motor vehicle suppliers. The taxation structure and low customer switching costs were the factors deemed to have had the least influence on new investor decisions. Low switching options for commuters meant easy access to potential customers. However, other more pertinent factors influencing new investor preferences were for instance, the state of lawlessness. Other factors identified by the respondents that facilitated new entrants/investors to investing in the public service vehicle sector were availability of finance alternatives and provision of a conducive business environment by the Government, formal sector employee redundancy, franchising and higher quality management.

From the research findings the main factors that have influenced the bargaining power of the public service vehicles owners include branding of Matatu and the liberalized fare system both increased the bargaining power of owners. Branding is a sign of a high level of organization while the liberalized fare systems enable price discrimination. The relatively low number of public transport suppliers in the market and the availability and number of private means of transport influenced the bargaining powers to the lowest extents. Other factors cited by the respondents as contributing to their bargaining power included involvement of owners in the sector, convenience of using Matatu's as opposed to other means, low costs and funding by NGO and a lack of Government commitment.

The excess of demand for public transport over supply and favorable Government regulations that shift the balance of power to consumers both increased the bargaining

power of commuters to a high extent. Commuters' ability to organize through forming national associations and to organize through forming route associations is lacking and hence had the lowest incremental influences on commuters bargaining power. Other factors mentioned by respondents as having influenced the little bargaining power of commuters included the effectiveness of consumer organizations and the ability of consumers to use taxi-cabs.

Competition from Taxi cabs was identified as the biggest threat from alternative transport followed by competition posed from walking. Competition from taxi cabs was also cited as a source of consumers bargaining power by one respondent. Air travel was the form of motorized-travel least seen as a threat. Competition from alternative non-motorized transport e.g. bicycles was the lowest threat from alternative transport. Of the "other" alternative transport modes air travel constituted the highest threat level, with private cars and vehicles and handcarts standing at a score of two for each. Each of these factors was highlighted by one respondent each (or 12.5% of the total respondents) and therefore was held inferior to the previous responses.

Flashy branding of Matatus as a means of attracting customers and franchising were the factors thought to have increased business to a high extent. These are strategies used to advertise the firm's offering, either directly or through the use of established and respected brand names. On the other extreme, regulatory reforms and relatively low differentiation of services offered were the factors that least influenced business rivalry. Regulatory reforms, as contained in LNN 161, were meant to contain the excesses of the informal sector. Other factors mentioned by respondents as having contributed to increased business rivalry were the educational level of operators and jealousy; lack of regulation for entry/exit; PSV manned by those in authority; Government controlling fares and Transport Licensing Board (TLB) restrictions.

Government regulations, route operation restrictions that prevented PSVs from operating on any route and the banning of standing passengers in PSV, influenced competitiveness to a high extent. Route operation restrictions may increase competitiveness by raising entry barriers thus 'protecting' the market for vehicles in

the given route. On the other extreme, payment of standard salaries to matatu crew and road pricing systems (tolls) all influenced competitiveness to a moderate extent. Other regulations/policy outcomes cited to have influenced competitiveness included the increased involvement of owners in the management of vehicles, policy framework in the PSV industry and payment of fine by vehicles charged with breaking road regulations.

5.2 Limitations of the Study

Methodological limitations encountered included respondents not fully understanding the information sought and tended to give wrong responses or did not even respond to certain questions. In particular, the open-ended questions received little attention, which limited the study's access to respondent opinion on the issue. The common resource limitations of time and money were also encountered in conducting the study.

5.3 Recommendations

This study will recommend that the passenger transport sector increase innovative use of alternative means of transportation (or substitutes). This will help improve competitiveness in the sector and reduce dependencies created by reliance on only a few providers who are able to integrate and form cartels. This implies lowering entry barriers to facilitate new entrants, thus increasing the bargaining power of commuters, lowering the bargaining power of suppliers, increasing industry rivalries and also the formulation of Government policies that facilitate the entire process from end-to-end.

Other studies may be done to find out what challenges are faced by investors in the passenger transport sector in Kenya, and more so, those arising out of issues to do

with industry competitiveness. Future studies could also look at other models that examine industry competitiveness such as Porter's generic strategies, and assess competitiveness in the passenger road transport sector in Kenya.

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APPENDIX 1

Letter to the Respondents

University of Nairobi

Towards World Class Excellence

School of Business
P.O. Box 30197
Nairobi, Kenya

Date: 6 November 2009
Telephone: +254 (020) 732160
Telex: 22095 Varsity

To Whom It May Concern

The bearer of this letter: _____

Registration Number: _____ Telephone: _____

is a Master of Business Administration (MBA) student at the University of Nairobi.

The student is required to submit, as part of the coursework assessment, a research project report on a given management problem. We would like the students to do their projects on real problems affecting firms in Kenya today. We would therefore appreciate if you assist the student collect data in your organization to this end. The results of the report will be used solely for purpose of the research and in no way will your organization be implicated in the research findings. A copy of the report can be availed to the interviewed organization(s) on request.

Thank you,

The Coordinator, MBA Program

APPENDIX 2

1. Using the below scale, please rank your opinion of the extent to which alternative means of transport have posed **threat to Public Service Vehicles (PSVs)**

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

	Extent				
Factors	**1**	**2**	**3**	**4**	**5**
Competition from Alternative Motorized Transport e.g. motorcycles					
Competition from Alternative Non-Motorized Transport e.g. bicycles					
Competition from rail based transportation modes					
Competition from air travel					
Competition from the taxi cab firms					
Competition from Private Vehicles					
Competition from walking					

2. Using the below scale, please indicate and rank your opinion of the extent to which **any other** alternative means of transport have posed **threat to Public Service Vehicles (PSVs)**

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

3. Using the below scale, rank your opinion of the extent to which the factors below have facilitated **new entrants/investors to** invest in the public service vehicle sector.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	1	2	3	4	5
Accessibility of technology e.g. fleet management Systems					
Availability of bank financing					
Availability of routes for operations					
Ease of access to motor vehicle suppliers					
Economies of scale in PSV operation					
Favorable insurance industry terms and conditions towards the PSV sector					
Government legislative structure					
Government taxation structure targeting the sector					
Low costs of acquiring the vehicles					
Police ineffectiveness in law enforcement					
Elimination of criminal gangs and cartels on routes					
PSV owners finding it easy to exit from the industry					
The low customer switching costs in the sector					
The low risk of fraud of the owners by operators					
The sector's attractive earning power					
The good state of the roads in Nairobi					

4. Using the below scale, indicate and rank your opinion of the extent to which **any other** factors have facilitated new entrants/ investors to investing in the public service vehicle sector.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

5. Using the below scale, please rank your opinion of the extent to which the factors below have increased the **bargaining power of PSV owners.**

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	1	2	3	4	5
The high demand for public transport locally					
Non existence of alternative modes of transport					
Availability and number of private means of transport					
Availability of subsidized means of transport e.g. passenger train					
Branding of matatus by come PSV owners e.g. Citi Hoppa, Express Connections (Double M) etc.					
Government policy on cartel formation					
Influence of other stakeholders in the PSV sector e.g. importers, insurance etc					
Level of profitability of the PSV sector					
PSV operators ability to obtain customers easily					
PSV owners national associations e.g. Public Service Vehicle Owners Welfare Association of Kenya					
Membership to route based associations					
Quality of service offered by PSV owners					
Relatively low number of public transport suppliers in the market					
Ability of the operators to run their own garages and import spares					
The liberalized fare system					

6. Using the below scale, indicate and rank your opinion of the extent to which **any other** factors have influenced the bargaining power of PSV owners.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

	Extent				
Factors	**1**	**2**	**3**	**4**	**5**

7. Using the below scale, please rank your opinion of the extent to which the factors below have increased the **bargaining power of commuters**.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

	Extent				
Factors	**1**	**2**	**3**	**4**	**5**
Availability of alternative mode of passenger transport e.g. train					
Commuters ability to buy own vehicles					
Commuters ability to organize through forming route based associations					
Commuters ability to organize through forming national associations					
Excess of demand for public transport over supply					
Government regulations that shift the balance of power to consumers e.g. reducing overcrowding & standing passengers in PSVs					
Lack of substantive service differentiation among PSV owners resulting in commuters choosing the PSV offering the lowest price					
Passengers willingness to co-operate and boycott services from PSVs that unscrupulously raise fares at the slightest excuse					
Wide choice of PSV providers available to the commuters					

8. Using the below scale, indicate and rank your opinion of the extent to which **any other** factors have influenced the bargaining power of consumers.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

9. Using the below scale, please rank your opinion of the extent to which the factors below have increased **business rivalry** among PSV sector operators.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

	Extent				
Factors	**1**	**2**	**3**	**4**	**5**
Capital investment in the PSV sector being rather high					
Cartels and groups that seek control of the sector					
Companies making use of PSVs to advertise their products or services e.g. Safaricom & Citi Hopper					
Economies of scale possessed by the large fleets					
Flashy branding to attract customers					
Franchising-PSV owners using names of companies registered by other persons or established firms (e.g. KBS) for their operations					
Infrastructural improvements e.g. road upgrading					
Low switching costs for commuters					
Regulatory reforms					
Relatively low differentiation of services offered					
The presence of many PSV owners with few vehicle units					
User of similar growth oriented strategies by the PSV owners e.g. flashy comfortable vehicle interior with DVDs and other entertainment					
Route profitability					
Weak route association					

10. Using the below scale, indicate and rank your opinion of the extent to which **any other** factors have influenced the business rivalry among PSV sector operators.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

11. Using the below scale, please rank your opinion of the extent to which the below marketing strategies have influenced the customer choice of PSV unit to board.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	1	2	3	4	5
Flashy color's and names					
Newer registration number					
Powerful and loud music system in the vehicle					
DVD system in the vehicle					
Unique hooting/horn system					
Alloy wheels on the vehicle					
Clam and comfortable vehicle					
Clean and neat crew					
Friendly crew members					
Young crew of the vehicle					

12. Using the below scale, please rank your opinion of the extent to which any other factors have influenced the customer choice of PSV unit to board

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

13. Using the below scale, please rank your opinion of the extent to which the **Government regulations and policies** below have influenced competitiveness in the PSV sector.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	1	2	3	4	5
Banning of standing passengers in PSV					
City center parking charges and associated costs					
Commercial land developments along routes for example the phenomenal growth at Upperhill					
Motor vehicle taxation policy					
Outlawing of criminal cartels along routes					
Regulations that focus on infrastructure improvements					
Removal of unroadworthy vehicles					
Road pricing (toll) systems					
Route operation restrictions that prevent PSVs from operating on any route					
Speed controls through use of speed governors					
Use of standard uniform by the matatu crew					
Payment of standard salaries to the matatu crew					
Licensing of the PSV to operate within the Nairobi's Central Business District (CBD)					
Deregulation of Fuel Prices					
Introduction of safety belts					

14. Using the below scale, indicate and rank your opinion of the extent to which the **Government regulations and policies** below have influenced competitiveness in the PSV sector.

1=No extent; 2=Moderate extent; 3=Fairly high extent;

4=High extent; 5=Great extent

Extent

Factors	**1**	**2**	**3**	**4**	**5**

Thank you for your participation in filling this Questionnaire