The Metamorphosis of Kenya Bus Services Limited in the Provision of Urban Transport in Nairobi

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Abstract

Kenya Bus Services Limited was formed in 1934 to provide transport services in Nairobi. For 64 years, the largest shareholders were foreign companies, operating it as most other western world urban transport companies. Due to a combination of factors, but mainly stiff competition with *matatus*, the company was sold off to Kenyan investors in 1998, in a state of near collapse. Since 1998, a number of changes have been made to its operations, and there are signs that it is coming back on its feet.

This paper gives, in a chronological order, the challenges and changes that KBS has faced over the years, and analyses the model that now seems to work for the bus company.

The paper concludes that The BusTrack model seems to address most of the problems that are related to Nairobi urban transport services provided by the private sector, especially those related to the micro-enterprises (*matatus*). However, there are a number of actions and policies that need to be taken/enacted by the city and central government to ensure that sustainable urban transport is provided in the city.

History and Milestones

Kenya Bus Services Limited (KBS) was established in 1934 when Overseas Motor Transport Company of London started a bus service using 13 buses on 12 routes. The Nairobi City then had a population of about 50,000 people and was developing fast, mainly due to the constructed Uganda Railways line.

As a colonial settlement, the configuration of Nairobi was a mix of three main races: Africans, Asians, and Europeans. The Africans residential areas were to the East of the central business district, the Europeans to the West, the Asians to the North, and the industrial area to the South. Movements of Africans and Asians were restricted, and interactions only occurred in the Central Business District (CBD). For obvious reasons, the West of the city had a good road network, and was highly accessible. This colonial structure still applies to date with the high income population living in the West, the Asians in the immediate South, and the low-income

occupying the East and satellite towns scattered around and along the fringes (10-20kms from the CBD) of the city boundary.

In the 1940's and 1950's, movements were still restricted, so the demand for Public Transport (PT) was low. Furthermore, due to the restriction of movements, the population of Nairobi grew at a very low rate. During this period, KBS only served the Eastern parts of the city, using vehicles built on lorry chassis.

Just before, and immediately after independence in 1963, movement restrictions were removed and this led to very rapid growth of the African population. More jobs were available for Africans in many parts of Nairobi, and this increased the demand for public transport. Rural-urban migration shot up, and motorization increased. The boundaries of Nairobi were expanded to keep pace with the rapidly growing urban area.

In 1966, liaison with the Local Government culminated in the signing of a 20-year franchise agreement in which the Nairobi City Council (NCC) acquired part of KBS company shares. The objective of the agreement was to ensure affordable and regular public transport provision on all city routes irrespective of route potential and would utilise cross subsidies within the network. The NCC, on the other hand, was to provide and maintain infrastructure, and control fares. Under the agreement, KBS was able to grow from 100 buses at independence to 166 buses by 1970.

The 1970's saw the population growth of Nairobi reach well over 20% per annum. The oil crisis of 1972 made transport industry difficult for KBS, as the fares (with no subsidy) were still controlled by the NCC, who were unwilling to increase them from the 1966 levels. KBS, for the first time could not meet the transport needs of the population, and this gave opportunities for the entry of the *matatu* mode of transport in eastern Nairobi and the peri-urban areas. Numerous complaints about the poor services provided by KBS led to the President issuing a directive in 1973 that declared *matatu* a legal form of public transport. The *matatu* mode neither needed any public transport licence to operate, nor were they required to pay any taxes to the city or central government. That in effect nullified the franchise between the KBS and Nairobi City Council, and the *matatu* mode became a competitor in the city.

In the 1980's, the KBS fleet still expanded and it operated about 300 buses. During the same period, the spatial growth of Nairobi surpassed the original NCC boundaries, and many people started staying in satellite towns. KBS therefore started operating the peri-urban routes to the neighbouring districts, which were previously monopolised by *matatus*. That move was seen by the political establishment as an encroachment by KBS into the *matatu* (indigenous people's) market while at the same time enjoying a franchise to operate within the city. Further, since KBS were allowed to carry standing passengers, it was charging lower fares than the *matatu*. Due to the "turf war", KBS stopped their services briefly, which made the Government to venture into the urban transport services industry.

In 1986, the Government started operating a parastatal (called Nyayo Bus Services Corporation) providing public transport in Nairobi. At the same time, the Kenya Railways Corporation introduced commuter trains for urban and peri-urban transport during peak hours. Competition between the KBS and Nyayo Bus was not fair. The Nyayo Buses charged lower fares than the KBS, because they had subsidies in fuel, and used labour from the state through the National Youth Service. Further, they could easily import spare parts for the buses, in an environment of foreign exchange restrictions. However, due to weaknesses in the management, the Nyayo Bus Services collapsed in 1992. The Kenya Railways Service is still operational but has a comparatively small market compared to the KBS and the *matatu* markets.

In the early 1990's, the United Transport Overseas Service, who had owned the KBS from 1952, did not want to continue with the business. They started to look for a buyer, and in November1991 sold their shares in KBS to Stagecoach Holdings Limited.

Stagecoach started with about 250 buses for city service operation. By 1992, their presence was felt as they had refurbished most of the old buses, and the service offered was much better than the *matatu* mode. Stagecoach rapidly expanded the fleet, introducing up-country "Express" service, and the modern double-decker buses back on Kenyan roads. Between 1996 and 1997, Stagecoach had invested more than KSh. 2 billion in fleet refurbishment, importing about 250 bus chassis and complete double new buses [Market Intelligence 2002]. Stagecoach seemed to have a good vision for KBS, but two main factors worked against them.

First, de-regulation of the economy, and the effective opening up of markets in 1992 made the acquisition of foreign exchange and importation of used vehicles easier than before. This combined with the early retirement schemes (the golden handshake) under the structural adjustments programme, encouraged the growth of the *matatu* in urban transport. In 1995, KBS estimated that there were about 6,500 *matatus* in competition with it in Nairobi, compared to some 3,500 in 1992/3. Competition became very stiff for Stagecoach, and were largely out-performed by the *matatus* (see Box 1). There were low financial and regulatory barriers to entry into the Nairobi city transport market, and a quick return was expected only if they kept their operation costs low.

Box 1: Competition between KBS and Matatus in early 1998

From a study done in early 1998 on some public transport routes in Nairobi, a number of key performanc indicators were obtained in the operations of *matatu*s and KBS [Koster and Gachewa 1999].

Performance comparison KBS/Matatus at network level during evening peak period

Times/Fares/Speeds	KBS	Matatu	% Difference
Average waiting time (min)	0:25	0:14	-44
Average trip time (h:min)	1:11	0:37	-48
Average travel time (h:min)	1:36	0:52	-46
Average fare/km (KSh/km)	2.3	1.6	-30
Average trip speed (km/h)	11.5	18.0	+57
Average travel speed (km/h)	8.5	12.8	+51

A market share study done in 1998 along one of the busy roads in eastern Nairobi (Jogoo) gave the following results [Hop *et al* 2000]:

	Matatu (18-seater)	Matatu (25-seater)	KBS
Peak period	32	55	13
Off-peak period	49	34	17

From these results it is clear that:

- Travel times were high, indicating low system performance. Average trip- and travel speeds were low, dropping to 11.5 and 9.5 km/hr respectively for buses in evening peak conditions.
- The *matatu* sub-system outperformed the bus sub-system in every respect during all times of the day: waiting times, trip times and travel times are substantially lower as a result of higher frequencies and trip speeds, while fares are about the same.
- The *matatus* transported the largest number of passengers, during the peak and off-peak periods. The 18-seater *matatu* had the largest share during off-peak because of their great number; while the 25-seater was leading during peak period because they carried standing passengers.

Secondly, the El-Nino rains of 1996 to 1998 further destroyed the poor infrastructure in the country, Nairobi included. Fares charged could not cover all the costs of operation, especially those due to poor infrastructure. The company reacted by removing buses from badly damaged city routes, as maintenance costs were too high, and increased fares on the remaining routes above the *matatu* fares. Further, the vehicle that Stagecoach operated had frequent breakdowns due to overloading during peak periods on the badly damaged roads. By the time Stagecoach was selling its shares, it had laid off about 400 employees, mainly due to the loss of its market to the *matatus*.

Due to these factors, and the stiff competition with the *matatu* mode, Stagecoach sold its 95% shares[5] in KBS to a consortium of Kenyan investors in October 1998. However, Stagecoach kept two directors on the board of KBS.

KBS Operations since 1998

The first action taken by the Kenyan investors was the adoption of a radically different style of operation of the bus company. At the time they took over the company, there were two divisions: the inter-city and the intra-city. The former with about 30 buses that operated between Nairobi and western Kenya towns, while the latter had a fleet of about 300 buses servicing Nairobi city estates and its environs.

The divisions' finances were handled as one and it was difficult to establish which of the two divisions was making losses. The financial accounting of the two divisions were separated, and soon it was apparent that the intra-city service was making losses. It is due to this reason that in 2001, the KBS directors made a decision and formed a subsidiary company called BusTrack Limited. KBS then sold all the city buses to BusTrack[6], a different company but having the same shareholders as the KBS Limited.

KB Limited then adopted two strategies: (1) cutting down costs of the operation of the company; and, (2) investing more in the slightly profitable inter-city business to make it more lucrative.

The first strategy has been achieved mainly through a policy of retrenchment of permanent employees and adoption of a different style of operation. The company had realised that it had high operational costs than their competitor (*matatu*) within the city, such as medical covers for permanent employees, training, meals and uniforms, operating a regular scheduled service, and two-shift crew per bus per day. Between January 2001 and January 2002, KBS had retrenched 1,925 employees, after reaching an amicable agreement with the Workers Union [Market Intelligence, 2002]. Many of the laid off employees were subsequently re-hired as casual employees. KBS hopes to cut down its staff to about 750 employees during 2002.

The company's second strategy was initially made possible by General Motors (GM) agreeing to give KBS 20 buses, without any advance payment. The low local vehicle sales in the country, and possibly the change in KBS management, may be some of the reasons to explain GM's action. The old fleet that used to serve the inter-city routes have all been replaced. The inter-city fleet now stands at 67 buses. The inter-city fleet currently contributes the highest percentage of the company's revenue. It has the advantage of operating both day and night, and in un-congested roads that allows for scheduled service.

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[5] The Nairobi City Council still owns 5% of the KBS shares.

[6] BusTrack is owned by the same shareholders of KBS Ltd, but managed as an independent company with one of the directors of KBS as the General Manager.

As a third, and experimental, strategy, KBS introduced another city transport mode in Nairobi in 2000 called the Metro Shuttle[7]. This is a city service that targets the top end of the market, and was introduced to create a niche as the prevailing services were too poor to attract private car users to shift to public transport modes. The service targets those who are willing to pay more (≈50% more) for quality service. The Metro Shuttle has been successful, taking into consideration that the service grew from four minibuses on one route in 2000, to about 30 minibuses on three routes in the city in May 2002. According to KBS, this is the service that they hope to invest in the coming years. However, traffic congestion, and the lack of park-and-ride facilities at the residential terminals need to be addressed as they affect the service cost and quality.

BusTrack Operations

Background

Immediately the KBS was taken over by the investors, the following steps were taken by the Board in their intra-city transport operations:

(i) Fares were reduced by almost half on all routes KBS was servicing. This was due to the realisation that in a city like Nairobi where people do not have disposable income, nobody was going to pay more to ride in the KBS than they paid for the *matatu*.

(ii) KBS refurbished the old fleet and concentrated on some routes to restore credibility, and gain back public confidence.

(iii) KBS introduced incentives to its remaining employees to increase productivity.

The KBS Board recognised that there was uneven playing field in the Nairobi city transport. KBS was required by the labour laws to employ four crews per bus per day as compared to two per *matatu*; nobody was paying for scheduled quality service (which was also becoming difficult due to congestion); high taxation and poor enforcement; and a large permanent staff.

In August/September 2000, Kenya Bus Services estimated the number of *matatu*s operating in Nairobi at 9,894 units, out of which 2,946 units are 25-seaters and 6,948 units are 18-seaters [KBS Competition Survey, Aug./Sept. 2000]. Comparison of the market shares in 1994 and 2000 is shown below:

[7] Metro Shuttle is a minibus with a seating capacity of 33 passengers. It only carries seated passengers, and runs on a timetable, though sometimes affected by traffic congestion.

Table 1 : Market Share on all routes in 1994 and 2000.

Mode	1994	2000	Change
KBS	36	17	-19
Big *matatu*s (Minibus)	45	29	-16
Small *matatu*s (Nissans)	18	53	+35
Nyayo buses	1	0	-1
Country buses	Negligible	1	+1

Source: KBS Competition Survey, Aug/Sept. 2000.

The results showed that KBS' market share had declined significantly, mainly losing out to the small *matatu*s, because of their numbers and shorter journey times.

Current BusTrack Operation Model

The competition study of August/September 2000 gave data that enabled KBS to change their operation model. As a way of cutting down costs and increasing productivity, BusTrack has adapted to some extent the *matatu* way of doing business. The company still owns the buses, but they are all leased out on some form of profit sharing arrangement with independent operators. The earnings of the operator are based on performance, in terms of the collection compared to costs (running, maintenance, and accident costs). The operators are former supervisors with the KBS who were retrenched, or encouraged to resign, and join the programme.

The programme was started in January 2001, and by mid October 2001, all the 277 buses were operated by private operators. At the start, each operator was allocated 3 buses, and based on experience and performance, the allocations were increased to 9 or 10 buses on some agreed terms and conditions. Some of these are:

(i) BusTrack assigns each operator buses and a specific route, but no timetable to be followed. Some routes with high passenger demands have more than one operator, so some sort of co-operation and co-ordination (scheduling of services) occurs between the operators.

(ii) BusTrack insures the bus, pays expenses, indemnifies the operator against non-negligence issues, pays taxes and ratifies deeds.

(iii) Fares are flexible, and only a guide book is given to the operator, specifying ceiling fares. However, the operator must use the company's ticketing machine that is inspected everyday to verify the collections. The operators deposit collections with BusTrack cashiers anytime during the day. This is a way of monitoring the operations of the private operators.

(iv) Buses can be fuelled and parked at approved service stations only. This is for easy monitoring of fuel costs by BusTrack, and to reduce costs of transporting bus crews to the central depot, as was originally done by KBS.

(v) Bus crews must be KBS trained to maintain quality driving and are directly paid everyday by the private operator at an agreed rate.

(vi) BusTrack staff at a central workshop provides regular servicing and maintenance of, and breakdown services for, the buses. BusTrack staff also manages major terminals and enforcement of agreed standards like vehicle speeds, driver alcohol level monitoring, and accident rates.

The operator has the following obligations:

(i) Operate, represent, and maintain the image of, BusTrack;
(ii) Adhere and follow instructions;
(iii) Give reports and provide information;
(iv) Employ crew, but must consult BusTrack;
(v) Can only operate one business, i.e. the BusTrack operations;
(vi) Maintains agreed standards like customer comfort, vehicle maintenance, and driving standards.

Initial Results

The lessons so far learnt by BusTrack are:

(i) Sense of ownership of the routes and buses by, and accountability of, the independent operators. Complaints by passengers about the operations are directed to the operators, who can address the problems quickly. This has further helped BusTrack in monitoring performance of each operator. It is seems that the KBS "license" and some sort of "formal" status that the operators enjoy make them wary of emulating the *matatu* operators.

(ii) Flexible scheduling of the buses along the routes as the operator is always available to assess demand and dispatch the buses accordingly.

(iii) Improved cash flows.

Other conditions for success

Although initial indications are that the service is improving (from BusTrack's point of view), the following as some of the problems hindering better services:

(i) Lack of "order" in the transport service operations in Nairobi. BusTrack are aware that although they are making some profits now, they are not offering the best service to the passengers. This is part of the reason that makes KBS more interested in investing in the Metro Shuttle service than the BusTrack service.

(ii) The operating speeds are too low, mainly due to congestion and poor infrastructure. In 1998 KBS achieved 90% of the 121,000 kilometres they

attempted to cover everyday; in February 2002, it was estimated that the BusTrack buses only managed 65,000 kilometres per day with the same number of buses [Market Intelligence 2002].

(iii) Fares are too low compared to the high costs of operation due to poor infrastructure and congestion. Stiff competition in the market, and poor economy cannot allow for higher fares that would ensure reasonable profits and encourage better services.

Analysis of the BusTrack Operation Model

This section analyses the BusTrack model with respect to the provision of sustainable urban transport in Nairobi, and possibly in other Sub-Sahara African cities, as an alternative to the existing private micro-enterprises.

The main advantage of the model is that the independent operators have fewer bureaucratic rules, and therefore are responsive to emerging and shifting market trends. They can easily alter schedules, fares, and operating services in response to daily variations in the market conditions in response to changes in travel patterns and behaviour than public authorities. They operate high capacity buses, which are better road space users, and have a regulatory body that enforces standards. However, their impact in the Nairobi transport market is small because of the limited number of buses they operate, which cannot allow for high arrival frequencies at terminals.

The three main factors that need to be addressed in Nairobi urban transport services provision are [Opiyo 2002]:

(i) the stiff competition in the market;
(ii) the financial position and policy of the operators; and,
(iii) over-supply of low-capacity transport service vehicles.

Contributing factors, symptoms of the problems, BusTrack model approach to the problems, benefit of the problems, and recommended policies are summarised in Table 2 below. The BusTrack model is appraised based on conditions of sustainability, i.e. traffic safety, congestion, pollution, accessibility, and use/employment of resources, which are among the issues and concerns that the *matatu* services sector are accused of being responsible.

Conclusion

The BusTrack model seems to address most of the problems that are related to Nairobi urban transport services provided by the private sector, especially those related to the micro-enterprises (matatus). However, there are a number of actions and policies that need to be taken/enacted by the city and central government to ensure that sustainable urban transport is provided in the city.

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PROBLEM	BENEFITS OF THE PROBLEM	CONTRIBUTING FACTORS TO THE PROBLEM	SYMPTOMS OF THE PROBLEM	BUSTRACK MODEL APPRAISAL	RECCOMMENDED POLICY
Stiff Competition in the market	• Uniform distribution of service to all routes.	1. Lack of regulations to entry into urban transport market. 2. Excessive supply of low-capacity vehicles. 3. Congestion and poor infrastructure.	1. Speeding, reckless driving, ignore traffic rules. 2. Overloading of vehicles to cater for low demand periods. 3. Long hard working hours for crew, causing driver fatigue, use of drugs, leading to traffic accidents. 4. Route "cutting" to avoid congestion and bad roads.	• Regulates competition by allocation of routes and buses. • Enforces agreed standards on safety, and drug use by crew. • Partly addresses symptoms 2, 3 and 4.	1. City authority to determine routes, assess fares, repair roads, check standards, and audit franchises. 2. City authority to prepare, competitively tender, award, and audit exclusive franchises for the central areas/major publict transport corridors. 3. City authorities to use road pricing restraints to keep private cars from central areas to reduce congestion. 4. Central government to act as guarantor to large operators to access loans. 5. Central government to spearhead broad policy agenda on urban transport services (institutional; involve communities, stakeholders; set and enforce standards) 6. Central government to ensure that the market is stable - policies are not arbitrarily changed.
Financial position and policy of *matatu* operators	• Offers flexibility in service delivery.	1. Management focussed on operating liquidity. 2. Quick recovery of investment, and diversification into other non-transport business. 3. Unstable and unpredictable market. 4. Minimisation of costs of operation.	1. Speeding 2. Overloading to maximise profits: higher maintenance costs; accidents; discomfort; etc. 3. Route "cutting" to avoid congestion and bad roads. 4. Poorly maintained vehicles.	• Fully addresses symptom 1; partly addresses 2, by monitoring costs; and partly addresses 3. • Fully addresses maintenance of buses. • Provides "access" to ownership of big buses.	
Over-supply of old, low-capacity vehicles	• Uniform distribution of services. • Encourages private participation, and ensures active competition in the market.	1. Unavailability of funds; reliance on family savings (limited funds). No access to loans (long pay-back periods). 2. Easier to enter into/stay in business. 3. Unstable and unpredictable market.	1. Speeding to make many trips. 2. Overloading to maximise profits: higher maintenance costs; accidents; discomfort; etc.	• Fully addresses symptom 1; partly addresses 2, by monitoring costs. • Only high capacity buses used by operators. Taxes paid by company.	

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