‘Open Busways System’ A well managed and efficient public transport solution for low-income countries

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ABSTRACT:
This paper focuses on the improvement of urban public transport operation. The operating conditions of bus based public transport system are quite poor in many developing countries due to high operating cost. Overcrowding, longer travel time, relatively high discomfort and low reliability are the common features of public transport in many cities. Private car ownership is low and passengers are generally captive to worst service for their daily activities. The paper analyses the perception of main stakeholders involved in public transport service and suggests the ‘open busway system’ approach under tight control of Public-Private Partnership (PPP) in the context of developing countries. Karachi, financial hub and the biggest city in Pakistan is selected for the application of the ‘system’. Financial viability of the proposed ‘system’ has been analyzed by using the Cost-effectiveness analysis (CEA) method.

RESUME :
Cet article s'intéresse à l'amélioration des services de transport collectif urbain. Les conditions de fonctionnement des systèmes de transport collectif de bus sont assez mauvaises dans de nombreux pays en développement en raison de coûts opérationnels élevés. Surfréquentation, longueur des temps de transport, inconfort et faible fiabilité sont des caractéristiques communes à de nombreux services de transport collectif dans ces villes. La possession d'automobile est rare, et les passagers sont généralement captifs des transports collectifs pour leur mobilité quotidienne. Cet article analyse la perception des principaux acteurs impliqués dans les services de transport collectif et suggère une approche par le ‘système de voie de bus ouverte’ sous la forme d'un partenariat public-privé (PPP) dans le contexte des pays en voie de développement. Karachi, centre financier principale ville du Pakistan, est utilisée pour offrir une application à ce ‘système’. Sa viabilité financière est analysée en utilisant la méthode de l'analyse coût efficacité (CEA, cost-effectiveness analysis).
1. Introduction
As no clear urban transport policy exists in Pakistan, any individual can buy a vehicle and ply on the route and become a member of the urban transport operation. This policy is considered to have destroyed the entire transport system of the country. There are three main stakeholders of urban transport service in Pakistan namely, Users which are vulnerable to public transport, Operators (providers) which are the owners of the vehicles and Regulators. The regulators category includes government agencies like traffic police and transport management institutes. In order to provide an efficient, economical and centrally well managed transportation system at city level the role of these stakeholders need to be studied in detail. Presently, operators and regulators blame each other for the current worst condition of public transport and consequently commuters face worst public transport. Due to lack of understanding on how to improve the situation, the gap between transportation needs and the means to satisfy the requirement is continually increasing in the cities of Pakistan. Despite the huge investment in road infrastructure, large cities are facing an ever increasing problem of traffic jam, accidents, air and noise pollution. One of the basic problems of the Karachi bus service lays in mismanagement particularly the failure of regulating, monitoring and enforcement agencies. A number of agencies are responsible for administration, but lack of coherent and focused policy, affects the ability to function effectively. Bus operators struggle to survive under the prevailing conditions of rising costs and on-road competition. The existing public transport service in Karachi has limited ability to cope with the increasing travel demand of those who depend on it. The major problem in Karachi is how to organise the transport service in a situation where each bus has individual owner and government agencies have less abilities to manage?

This paper suggests a well managed framework with the combination of public private partnership at tactical and operational level to deliver the improved, reliable and efficient transport service for the passengers. Co-ordination among the key stakeholders is important, therefore a government organised non-government organisation need to be setup, to manage and run the transport through the joint collaboration of the government and the transport operators. The main aim of this study is to bring the present bus service under well managed ‘system’. After briefly describing the current transportation situation in the case study, the paper covers the main functions and benefits of the proposed framework.

2. Present Public Transport Scenario in Karachi
The present bus service has not been able to be popular and grow in its share of catering demand. Condition of buses, long waiting and boarding time, safety and service deficiencies in the peak hours are the main discomforts normally indicated by users [1]. These present conditions of the bus transport system cause extreme hardship and stress for the people of Karachi in the course of their day to day lives, impacting significantly on social and economic wellbeing and the quality of life.

2.1 General Description
Karachi is a home to 15.12 million people with increasing annual growth rate of 6 % compared to 3% per annum at national level. There are two main reasons of this increasing growth rate which includes the large-scale migration of population from all rural areas to Karachi and natural growth. According to the estimation of city government, approximately
0.2 million people are added to the metropolis every year which is approximately 35,000 households [7]. Given the current speed of urbanization, by the year 2010, Karachi city may reach a population mark of 17 million. The city’s population growth has a direct impact on spatial growth as well. The urban area now extends over 1800 sq. km whereas the area of Karachi Division is around 3366 sq. km. The mega city is the economic backbone of the country with 65% revenue contribution to Provincial and federal government [8].

2.2 Transport Demand Parameters

There are normally five basic parameters of transport demand namely: land use, population, economy, employment and education. In Karachi around 5.4% land is used for transportation purposes [8]. Being an industrialized city there are high economic activities. Karachi is a mono centric city basically over 70% of the business services and around half of the retail trade and personal services are located in the central district [5] while about 50% of employment in wholesale and transport is in the port area and central city [8]. The employment forecast reveals that Karachi city creates around 3.5 million jobs every five years. Moreover, an important factor of the peak hour traffic generated is the education sector. Person trip study shows that around 11.43 million trips in 2005 were conducted for education [11]. Due to the size of the city, jobs are spread across a substantial area as it is difficult for people to find work close to their homes, making public transport essential for long journeys.

2.3 Current Public Transport Situation

Presently there are 2872 operative coaches (seat capacity 25-30), 4294 mini-buses (seat capacity 20) and 2421 buses with seat capacity 35 to 60 are officially running on the 207 routes in Karachi [3] without any central combination. Many hundreds of buses are also running illegally on different routes. Officially there are more than 300 routes but only 200 are in operation. Due to insufficient public transport in the city the ratio of available seat capacity on public transport is 1:40 as compare to other mega cities 1:12 in Mumbai and 1:8 in Hong Kong [10]. The total of all types of registered vehicles in the mega city are around 1.5 million and growth rate is alarming with 18% per annum [8]. Population and traffic growth of the city suffers badly due to the public transport sector which is mainly based on buses of different capacity. Public transport which is based on buses and mini buses in the mega-polis is quality, quantity and safety wise in very bad shape and commuters have to rely on it having no other option. Problem of commuters become more sever during the rush hours. Trip survey shows that out of a total 24.22 million person trips made by the commuters during the week days, 60% were made by the public transport [11]. The public transport is owned by private sector and is very poorly maintained.

3. Rationale for Poor Service Quality

3.1 Users Perception:

Qualitative aspects of transport service (such as comfort, safety, vehicle condition and travel time) always play important role in the success of any public transport system. Passengers like to sit comfortably in good seats with enough legroom but the mini-buses are not suitably structured. Passengers even cannot travel while standing because of insufficient ceiling height. The main concern of passengers is current service quality being incompatible with the fares they have to pay and regulating agencies have no plan to
change the situation. Present bus service presents a very bad impression among the commuters. Bus operators work long hours every day, displays often aggressive behaviour and are prone to high accident risk. Particularly during the peak hours their attitude become very rude and they try to overload the bus as much as possible to maximise the income causing passengers to suffer. The majority of population belongs to low income group and these captive users face difficulty in accessibility particularly during the peak hours. Commuters have to travel some times on the roofs of the buses risking their lives. According to a recent study, 70% of city population lives with a household income below Rs.10000 per month (p/m) [3]. The most affected group of the population due to insufficient transport systems is the urban poor whose situation is already fragile in terms of well being, resources and opportunities. There is the direct cost of transport (price) but also the indirect cost being the loss of time in using low cost transport options.

By comparing the income levels, the cost of transportation is high. More than half of population spend Rs.500-1000 per month on transport [11] which indicates that transport costs are a major burden to the family budget ranging from 3% to 26%, and this includes even the lowest paid (around Rs.3000 per month). So far, no comprehensive study on passenger satisfaction with present bus service in Karachi has been made. Commuter’s opinions regarding the quality of bus are important in making the service attractive and popular. As users are the main stakeholder of any public transport service, their satisfaction must be placed centrally. A number of issues related to service quality and access that affect users directly or indirectly can be classified in three categories; behavioural, qualitative and financial. Operators’ behaviour is very aggressive and quality of service is very low which is not compatible with the fare the users have to pay.

3.2 Operator Perception:
The regulating authorities do not increase their role in the planning of the bus service. Their role is limited to vehicle registration, tax and allocation of route permits generally and there is role of traffic police for traffic safety and management. Operators have to pay individually to regulating authorities as well as private route owners which make the operating cost high and service conditions poor. Operators can operate the vehicle on the route as long as the route owner and regulating agencies are happy with them. This is the reason operators are more interest in satisfying the route owners and regulating agencies rather than passengers.

The fare, which is directly collected by the bus individual operator, has to cover all the operational costs, as the operators do not receive any subsidy. The driver’s wage is proportional to the number of passengers he carries therefore each driver tries to maximise the number of passengers carried in each bus. If the driver wants to earn more money, he has to compete with all the other buses to catch as many passengers as possible. There is no actual competition in fares or service quality. The only competition is on the routes, with buses fighting to catch the next passengers. Each bus owner managed his own income, independent of the revenues of the other buses. So, competition in the streets remained as a reality even between vehicles of the same route. Because of this, there is no quality of service and penny war is going on among the operators but at the cost of passenger’s safety.

There is no financial or fuel subsidy from the government. In case of accident or political unrest all costs have to be paid by the operators themselves. Although insurance is compulsory by law, in reality operators have to bear all the financial and operating risks. It is primary responsibility of governments to provide the basic infrastructure but in Karachi there is no proper bus terminal and bus stops. Operating conditions are extremely hard which lead the public transport service in a worst level.
3.2.1 Risk Management and Risk Allocation
Financial security comes with the proper risk management and allocation. In the present circumstances mostly operators have to bear the financial and operating risks. Due to the violent culture in the city for many years, formal banks are reluctant to invest in the public transport sectors. Informal sector has got deep roots in the system as formal finance at commercial rates is not available. The informal money lender’s only role is to finance the buses at high rates of interest (up to over 100% mark-up on the loan value which is paid over 3-4 years). As the ownership of the vehicle is retained by the money lender till the vehicle is fully paid, the bus operator risks losing his investment should he default on payments [2]. Another risk is related to political and ethnical unrest. During the last five years around 1200 buses have been put on fire and operators are real victims because there is no insurance policy for compensation of lost [3]. The bus associations now operate as self funded scheme to help the victims of such action which again increase the operating cost.

3.2.2 Role of Traffic Police
The Police and in particular the Traffic Police has become the central body for the system without any check upon it. The transporters in particular are an easy target and Police are alleged to be extorting money from operators for any and every reason, including issues well beyond police jurisdiction. The threat by Police to hold the bus for an alleged violation is the main concern for bus operators, as the loss in earnings in an already marginal situation can cause extreme hardship. This vulnerability makes payment of bribe to Police the quickest and easiest solution [12].

3.2.3 Maintenance of Vehicles
The poor condition of the buses is another feature of the industry, despite regulations stating that all buses require certificates of fitness. The poor maintenance of the vehicle is a main source of accidents as well as air and noise pollution in the city. Karachi has only one Motor Vehicle Inspection station which is completely under-resourced for the task. Inspection is limited due to lack of proper facility for inspection, as there is no brake testing or smoke measuring equipment; no pit for under body inspection and each bus receive only 5 minute visual inspection. Normally busses have 10 year life service but in Karachi most buses are more than 20 years old with many buses being 30 to 40 years old and are clearly beyond their service life [2]. There is no concept to pass even a basic roadworthiness test, yet certificates are issued, although inspection officers can exercise some stringency by failing vehicles with obvious defects and seeing that items are repaired before issuing certificates. There is no set technical standard to which buses are assessed, so the inspection officer often has to make a subjective decision which leaves the officer in a weak position to enforce.

3.3 Regulators Perception:
Civic regulating authorities justify their position by lamenting the limited budget and insufficient well trained work force. There is no co-ordination among the different agencies which leads to the confusion in managing the situation. There are seven government
agencies which directly deal with the operators for the daily business. These agencies are related to route permit, traffic management, taxation and vehicle inspection. Due to the prevailing corruption in the public sector these agencies are considered more interested in money extortion rather public transport improvement.

The lack of government regulatory and management strength, has led to the private operators to become the ‘service provider’. Despite being an essential service provider transporters representatives are often ignored during the policymaking process, blamed for service failures and suffer daily harassment by government authorities. As a consequence, operators act to protect their commercial interest by organizing into a unified body to improve their representation as a lobby. This organisation process has produced many transport owner associations. These associations support its members, and seek to improve conditions by actively representing the industry. These associations also work as informal management structures to define operator participation in the route operation. In this way the role of these private association has become very strong in decision making at all levels. In these organizations strong role is played by route owners and moneylenders to secure their interests. Moreover the associations have now become a very powerful lobby. Any suggestion for service improvement is rejected if it is against their interests. Operators do not care about the route permit policy and after bargaining with route owners and traffic police ply the vehicle in a route which is more financially lucrative. Any attempt to modify the route networks is strictly blocked by the powerful lobby.

4. Absence of System Management
The key problem with the present bus service in Karachi is lack of management concept, which has severe impacts on efficiency. Private operators are interested in more and more profit, service quality is not their priority. With the rising fuel price and high maintenance cost they are struggling to survive under the controlled fare policy. The government can manage and improve the quality through regulations but traditional laziness, prevailing corruption and complicated administrative system leads the ineffective management which is even extra burden on the operators. At an individual level, private transporters try to operate cost efficiently, but at the expense of service quality and satisfactory operating practices. It is the responsibility of the government to handle the situation and give the relief to the users by applying its legitimate role as the public service ‘provider’, but retain the private sector to operate the buses under an efficient and viable business model. Without any proper system to operate a bus in any route is not a simple business any more. The individual operator has to deal with transport management agencies as well as these private associations to survive in the ‘system’. Political intervention and bureaucratic corruptions are important factors with high fuel cost to increase the operation cost of a vehicle as shown in the Figure 1.
There is inconsistency in the government policy to handle the situation. The rapid growth of traffic places a considerable burden on urban transport. Rapid growth brings with it the need for more traffic controls and regulations, effective police enforcement, and the introduction of sophisticated technical measures. Unfortunately, urban transport institutions often are ill-equipped to deal with the sheer increase in traffic or to adopt advances in technology that would help them overcome problems. It is rare to find single agencies with the comprehensive authority needed to deal with the large range of transport problems and to coordinate overall solutions. Often the boundaries of these agencies’ authority tend to be indistinct and the result is the duplication of responsibility, an undermining of accountability, and resistance to change. As many as eight agencies are involved in Karachi Transport System in one way or the other resulting in lack of coordination and delineation of responsibility and power [4]. This results in inconsiderable chaos, which ultimately affects in the smooth running of the transport system. If one agency issues driving licenses, another is responsible for issuing route permits to transporters. Yet another examines the fitness of the vehicles. Thus there is no single oversight body for the transport sector as a whole. To promote transport efficiency, some degree of government oversight or regulation is usually warranted. However, much of the government regulations are prone to distortion, and excessive administration.

5. Proposed System Framework
The bad or good outcomes of any public transport system depend on how the different components which are involved and interconnected, work. All these components are critically important to system performance and need to develop as an organized unit. The present service features chronic and entrenched problems and behaviour. The dire need for drastic change is perceived from users, operators as well as regulators perception. New strategy is required that addresses the core problems with holistic approach to improve the public transportation in the metropolitan.
5.1 Public Private Partnership for Service Improvement

A core component of this study is to develop a Public Private Partnership (PPP) for urban transport system considering the interests of three main stakeholders. From this perspective, customer satisfaction, operational viability and safety can be used to find the reasonable solutions to the problems. To overcome the limitations of both the public and the private sectors, a public-private partnership - KUPTS (Karachi Urban Public Transport Society) - is proposed to provide public transport. With the legal status of an NGO (non-governmental organization) KUPTS will work independently without political and private influence. The main priority of KUPTS is to provide, maintain and supervise transport facilities for the commuters in Karachi. The secondary objective is to replace old and obsolete vehicles with high capacity buses to improve the travel conditions. In 1990s the some how similar concept was implemented under the flag of FUTS (Faisalabad Urban Transport Society) on a small scale and was quite financially viable for operators and popular among the passengers but after some years with government change, the system was replaced [1].

There is no perfect transportation system and therefore best solution lies in establishing trade-off between the various components given the environment. Clearly an effective transportation system is a function of the strategic objectives designed to address the stakeholders’ interests. Any urban mobility system can provide effective and efficient solution to its clients if it addresses the proper interaction between main agents within and across different level of planning and control (such as operators, authorities, citizens etc.) [6]. Depending on the strategic aims defined for the transportation system, and the different stakeholders’ interests, a different mix of quality aspects will result. These aspects can be transferred into sets of measurable criteria to be used in the selection and contracting of the operators, in order to assure a coherent relation between the strategic aims and the performance of the system. For this study significant efforts have been put to improve the quality of transport operation given the situation of user’s affordability and operators input. The suggested ‘system framework’ emphasize the need for a close risk sharing co-operation among the stakeholders at tactical level and simplifies relationship between operators and KUPTS. This relationship can reduce major operating cost and increase the system efficiency.

5.2 Partnership at Tactical Level

It is clear that the delivery of public transport requires governments to take a greater role in managing the ‘system’ and develop a proper commercial arrangement for private sector involvement. The proposed reform has espoused the role of government as the ‘system manager’ and contracting the provision of bus services to the private sector. The objective is to match role to capability, and apportion risk where it can be managed best. A proper balance of role and responsibilities needs to be allocated. The role of the government transport management agencies and financial institutes are important under single command and control system. As said above present role of traffic police and other government departments are great financial burden on operators. On the other hand, role of moneylenders are not based on balanced risk sharing. Thus public transport operation has become very risky under the ethnic violent culture of the city.
Figure 2: Conceptual framework for Public-Private Partnership (PPP) for public transport improvement

KUPTS managers and route planners will develop the viable business plans for different routes after the negotiation with representatives of financial institutes and insurance companies and then offer that plans to operators. The aim of this modified route plan is to build an efficient bus system based on creating ridership (revenues) and managing costs. A typical outline of such a model is shown as Figure 2. The success of the proposal depends entirely on the strength and capacity of the system manager and this is addressed by ensuring that the rules and norms of the organization create the incentives for good performance.

4.3 Partnership at Operational Level

After its formation, the management of KUTPS will invite private sector operators to become members of the society. The operators are required to enter into an agreement under which they make vehicles available to the society and society will allocate route to the vehicle according to vehicle condition and route requirement. The present government agencies will work under the directions of Society and where necessary more professional staff will be employed who will supervise operations of the entire fleet, enforce regulations, and perform other administrative duties. The head of NGO will enter into agreements with operators on behalf of the Society, and can fine operators for violations. Quality standards for bus operation will be setup and only high capacity buses will be plied on the central corridors and redesigning of routes will increase the ridership as well as revenue on every route. Different types and size of vehicles’ fares will be adjusted according to the route requirement and financial viability of the service. Operators will get the benefit of routes rationalisation and moreover due to the simplification in the system they will not be required to pay any fee to the route owners as well as the regulating agencies. The benefits of the proposed framework can be conceived by using the simple cost effective analysis.
5. Cost-effective Analysis (CEA)

CEA is an economic term that compares the expenditures and outcomes of any action. The concept is mostly applied where full cost-benefit analysis is inappropriate and the objective is to replace or refurbish the existing infrastructure. In principle, the benefits of the action is held constant at some pre-determined standard of service, and various options for providing that standard are then compared, with the least-cost method identified as the preferred option.

5.1 Financial Viability

In the proposed framework the Society generates funds through monthly service charges and a welfare fund deposited by the operators, in addition to fines collected for violations. Under the present service, fuel, staff wages and route fee are three major costs per day as shown in the figure 3. Moreover, monthly and quarterly vehicle maintenance cost is another factor. Currently every operator has to pay Rs.3000 for fuel, Rs.300 for route fee and Rs.1300 for driver and conductor daily. Moreover every month around Rs.1500 goes to police and Rs.1500 for self funded insurance scheme. An average vehicle has a total maintenance cost Rs.14000 per month [13] as shown in the figure 3.

<table>
<thead>
<tr>
<th>Vehicle types</th>
<th>Operating Cost (Present situation)</th>
<th>Operating Cost (Under KUPTS)</th>
<th>Revenue</th>
</tr>
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<tbody>
<tr>
<td>Coach (2nd Hand)</td>
<td>- Operating Cost: Staff wages: Rs.1300/day</td>
<td>- Operating Cost: Staff wages: Rs.1300/day</td>
<td>Revenue (Present situation)</td>
</tr>
<tr>
<td>Finance: 1 to 1.5</td>
<td>Fuel: 3000-3500 Rs. /d</td>
<td>Fuel: 10% less exp.</td>
<td>Rs./day 6000 – 8000</td>
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<tr>
<td>Million (Rs.)</td>
<td>- Route owner fee: Rs.250 /day</td>
<td>- Membership Fee: Rs.3000/m</td>
<td>Revenue (under KUPTS)</td>
</tr>
<tr>
<td>Capacity: 27 to 32</td>
<td>- Bribe/Bhatta: 1500 Rs /month</td>
<td>- KUPTS Fund: Rs.1000/m</td>
<td>Rs./day 7000-9000</td>
</tr>
<tr>
<td>seats</td>
<td>- Traffic fines: 500-700 Rs/m</td>
<td>- Infrastructure Improvement Fund: Rs.1000/m</td>
<td>Difference</td>
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<td></td>
<td>- Monthly Maintenance Cost</td>
<td>- Insurance: Rs.2000/m</td>
<td>Rs./Month 30000+16000 = Rs. 41000</td>
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<tr>
<td></td>
<td>Oil change: Rs.4000</td>
<td>- Maintenance Cost: 10% less exp.</td>
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<td></td>
<td>Spare Parts: Rs.2000 Cleaning: Rs.3000</td>
<td>Total: Rs.139000/m</td>
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<td></td>
<td>- Engine Related Maintenance</td>
<td>Total: Rs.155000 /m</td>
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<td></td>
<td>Rs. 25000 – 30000 /6 months</td>
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<td></td>
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<tr>
<td>Bus (2nd Hand)</td>
<td>- Vehicle fitness Fess Rs. 800 /6 months</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance: 1 to 1.5</td>
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<td></td>
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<tr>
<td>Million (Rs.)</td>
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<td></td>
<td></td>
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<tr>
<td>Capacity: 40 to 50</td>
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<tr>
<td>Seats</td>
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<tr>
<td>Mini Bus (2nd Hand)</td>
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<tr>
<td>Finance: 0.8 to 1</td>
<td></td>
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<tr>
<td>Million (Rs.)</td>
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<tr>
<td>Capacity: 25 to 28</td>
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<tr>
<td>seats</td>
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Figure 3: Financial viability of the proposed framework (Source: Authors)
The proposed system helps to reduce the maintenance as well as fuel cost and operators can save significant money from route fee and policy extortion. However, to make the KUPTS financially independent, small amount of money will be paid per month by the operators. The Society will generate funds through compulsory membership fee and all operators have to contribute infrastructure improvement (bus stop) funds. In addition, there will be a monthly payment of Rs.1000 to the welfare fund and operators will deposit Rs.1500 per month with the Society. Normally an operator will save between Rs.41000 per month after meeting all expenditures for fuel, staff and maintenance as shown in the figure above.

5.2 Service Efficiency
Operational efficiency is a defining issue for the success of system. The failure to recognise the bus service as a ‘system’, demonstrated that there is no one in charge of managing the network. Efficiency requires the system manager to have clearly identified aims to achieve. This involves having operational plans to ensure a high level of reliability, based on monitoring and a process of continued improvement through review and adjustment. Appropriate rate of return on investment is important for operators whereas users emphasize on value of money. Route rationalisation and allocation on the basis of vehicle standard is proposed under the KUPTS which will increase the competition among the operators to improve the comfort for better income. The service must be designed to meet the specific user needs. Timetable based service on the clearly defined routes will decrease the travel time and thus operating costs and will increase revenue. On time service can improve the reliability of the system.

5.3 Benefits of Proposed System
Major benefit of the proposed system is to bring the strayed transportation service under a functional system. The benefits can be divided in the phases, short and long term. With the partnership of key stakeholders under comprehensive command and control system, a tremendous potential exists for developing self-help solutions, in order to overcome the constraints of limited resources of government and lack of combination in the present set-up. Small but important projects can be started in the first phase to improve the image to city bus transportation by:

a) Establishing the cleaning and maintenance standards for bus fleet
b) Setting up the ergonomic standards for the interiors of the vehicles
c) Building, repairing and maintaining the bus stops with the help of community
d) Route network rationalisation can reduce the overlapping and gaps which will result in reduction in travel time and cost

KUPTS can be a good platform for all stakeholders to give suggestions for the system improvement. Member can discuss the problems and develop the understanding for solution at a single place. Prevailing corruption in the regulatory body is on one hand source of financial burden to operators and on other hand, it encourages lawlessness in the operators which is the main reason for increased dangerous driving. Police cannot force the operators for money extortion day-to-day and this will reduce the operation cost and improve the passengers’ safety under the new system. Unclear rules and responsibilities among the law enforcement agencies and unevenly implementation have destroyed the entire transport service. This lack of responsibility and accountability culture has forced the
operators to deal the routine matters on political relationship, personal influence and financial links with civic bodies. The proposed framework advocates the coordination among the stakeholders, strictly on the basis of merit, rules and regulations.

Besides proper rules and regulation, the proposed framework will be helpful to change the present political influence in the public transport. Informal partnerships exist between the politicians, executives and operators’ organisation. They support each other for mutual interests but the common operators and passengers have to suffer. KUPTS will provide necessary shelter for any misuse.

The well efficient system will be fruitful for long term policy as well. After some years it would be easy to establish Bus Rapid Transit (BRT) after introducing the dedicated bus lanes and integrated fare system.

6. Conclusion
The right solution for any busways system depends on the local circumstances, geography, type of facilities constructed and type of operators. A busway which is open to all operators offers the possibility of maximizing its use and benefits but has normally poor operating conditions and relatively weak central management. On the other hand, a closed busway gives the operators the opportunity to have tighter control over the operation but it needs high capital investment and subsidy from the public sector.

A step by step organisational and operational approach for urban public transport is presented in this paper for low income countries. There are no secrets to running an efficient, well-regulated operation, nor is it particularly sophisticated. Nonetheless, it requires clearly defined work plan and major efforts of coordination and discipline that are hard to achieve without an adequate organizational framework. Traditional transport operations, consisting of loosely regulated, independently operated buses which compete for passengers and have no fixed schedule or stops, are generally not self-sustaining financially. The whole transit system is characterized by operational inefficiencies. For urban public transportation, system efficiency and operational sustainability cannot be achieved without valuing the perceptions of main stakeholders. This paper suggests the ‘open busway system’ approach under tight control of Public-Private Partnership (PPP) in the context of developing countries to increase the overall public transport efficiency.

7. References.