

ALTERNATIVE APPROACHES TO IMPROVING ROUTE BUS SERVICES IN SRI LANKA

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ABSTRACT

1. Following a lengthy period of bus services being monopolised by state companies, the Government of Sri Lanka (GOSL) allowed private buses to provide route service in competition with the public sector companies. This resulted in an increase in service frequency during the day, but in service decrease at night and in a decline in service quality at all times.
2. The purpose of the paper is to explore the reasons for the decline in service quality and to propose suitable remedies. Both authors agree on the root cause of the problem: the GOSL licenses individual bus owners, (who generally own one bus) to provide route service. Each owner may be expected to be interested in maximising his own profit, but there is no group interest to build up the route to provide the high-quality service desired by the travelling public.
3. One of the authors advises the GOSL to deal with this problem by abolishing route permits and instead allocating metropolitan and district services to single operating undertakings which would devise, plan and operate bus routes as a network on a systems approach, leaving isolated feeder routes to private parties. The other recommends that, to establish effective property-rights in the provision of route service, buses providing route service should be grouped as "Route Associations", and that route permits be granted only to such associations.

BRIEF HISTORY OF BUS REGULATION IN SRI LANKA

Early days: unregulated private operators

4. The first recorded bus service in Sri Lanka was that provided in 1907 by T W. Collett who operated a combined goods/passenger service from Colombo to Chilaw. This service developed into Sri Lanka's first bus company, the Ceylon Motor Transit Company. Its inauguration was soon followed by the first government intervention in bus services, the Vehicle Ordinance Act of 1916.
5. Until 1942 buses were operated with minimal regulation under conditions of intense competition. The situation was similar to that in Britain, Belgium and many other countries where individual entrepreneurs purchased a vehicle, sometimes an aged lorry, converted it for passenger carriage and operated a route with promising symptoms. As in any business, success of any innovator entices competitors until oversupply reduces the profit margins of all, as indeed is the reported outcome in many British towns today. In Sri Lanka in the twenties and thirties this led to legendary battles on the road similar in style, though not in scope, to the railroad warfare across Oregon and in Colorado's Arkansas Valley in the 1850s. Amidst this rivalry in Sri Lanka the more enterprising or the more aggressive bought up the timid and enlarged their fleets.
6. As part of this development the typical successful operator developed the practice of not leaving a terminal without full loading, and always retaining a bus at the terminal (until arrival of his next bus) so as to enable each potential customer to be enticed into his bus rather than his rival's. This particular practice, prevalent elsewhere at this stage of development in many countries, has had a profound influence on bus operating philosophies ever since. What led to government regulation, however, was not this form of asset usage inefficiency but the strife, and sometimes consequent accidents, and the public agitation which emerged.

The 1942 reforms: regulated monopolies

7. In 1942, in reaction against what many considered to be destructive competition among 2,000 bus owners, and following British inter-war practice, the GOSL induced the operators to amalgamate into 85 regulated companies, each of which was given a territorial monopoly. This system was easier to regulate but became unsatisfactory later.
8. The 1942 reforms forced bus operations into companies each operating over an allotted territory. Individual operators surrendered their bus to the companies and received shares. The companies were naturally dominated by the largest fleet owner joining each company. The result was 85 companies most of whose territories consisted of linear corridors with branches penetrating the interstices between corridors. Colombo had eight such radially oriented companies, three

companies operating short circumferential routes linking the radials and two other small companies in the outer suburbs. The importance attached to the avoidance of competition was such that where radial corridors merged there were complicated rules about not picking up *and* putting down passengers over another dominant operator's route. In Kandy there were 7 radial companies and one "town service" operator who enforced the "don't pick-up-put-down" rule against all others. Some operators were strongly unitary in character, for example South Western which eventually had a fleet of 400 buses operating between Colombo and Galle and servicing its hinterland under the dominance of a powerful leader, later President of the Senate. Others retained their slightly veiled separateness, such as Sri Lanka Bus Co, operating between Colombo and Kandy, which had four or five autonomous branches, all sporting the same livery, logo and brand name. The branches covered their original territories but shared, on agreed slot rotation, the intercity Colombo-Kandy and Colombo-Kurunegala routes.

9. In their own interests, these monopoly companies ought to have striven to maximise their asset-utilisation, efficiency and profits, but they did not do so. With few exceptions (eg. Madhyama Lanka Bus Co operating the Kandy-Gampola-Nuwara Eliya and Gampola-Hatton-Nuwara Eliya corridors), bus utilisation was less than 100 miles per bus per day with correspondingly low workforce productivity. Their early profits dwindled in the 1950s partly because of this inefficiency and partly due to withdrawal of surpluses to invest in plantations and palatial residences. This very withdrawal led to lack of fleet enhancement to meet growing demand and the public agitation which branded the operators as "bus barons", analogous in title indeed to the American "Railroad Barons".
10. Why did these private sector operators fail to understand that increased efficiency would not only increase their profits but also improve their image and thus ensure their survival? Explanation is difficult, but probably includes the psychology of self-made men. Most of them took pride in their achievements, thought they knew all the answers, and preferred loyal managers to professionals. Their unfamiliarity with transport theory, and to some extent their judging demand by its symptoms rather than its reality, contributed to their failures.
11. These failures can be illustrated by a few examples:-
 - (a) One company operated short routes in the city with about 100 buses. Four of those converged at Borella, an inner suburban nodal point. The running time of these routes was only 10 minutes, and the headway on each 10 minutes. Under the pre-monopoly practice of keeping a bus at each terminus until the next one arrived, there were always 8 buses idling at the termini and 8 buses on the run, hence 16 buses deployed. The company was induced to link the 4 routes into 2 services, each needing 20 minute running time, and 8 buses to maintain the 10-minute headway. Granting 5 minutes terminal layover would increase the requirement to 10 buses. This

would obviously save cost while retaining the same patronage and income. After considerable persuasion the company did implement this, however retaining the 10 minute layover, but using 12 buses instead of the original 16. Yet after 2 weeks of crew and passenger resistance, the company reverted to the old system because it could not last out the necessary gestation period.

- (b) One company, anxious to control fare leakage, established expensive off-bus ticket booths at main bus-stops, the cost of which exceeded the estimated leaked revenue.
 - (c) Another company needed a substantial fleet to transport homebound riders from the CBD at a concentrated evening peak. The passenger queue sometimes extended for 200 yards containing up to 400 passengers or 5 bus-loads. But 10 buses were often seen queuing to reach the head of the passenger queue. Since it took 4 minutes to load each bus, the 8th bus in the queue idled for over half an hour. If simultaneous loading had been adopted the crowd would have been quickly shifted and less buses needed. But the company did not realise this, or were unwilling to train its stand managers and accelerate the schedules so that each bus could perform one more trip.
 - (d) Most bus companies refused to offer late services after 9 PM on the grounds that there was no visible demand, ignoring the fact that passengers do not stand visibly at the roadside for buses that are not known to run. The companies were not willing to take risks.
 - (e) There was only a single case where two companies with monopolies on opposite sides of Colombo agreed to apply for permission to provide a joint service across the city.
12. Interestingly, the one company $\frac{3}{4}$ Madhyama Lanka $\frac{3}{4}$ which recorded good performance and profit and increases in fleet size and public satisfaction, was owned equally by five former district-based owners none of whom could dominate the others, and so left it to a professional manager who sought outside advice, introduced training for staff and obtained a copy of the 1947 text book "Bus Operation" by Kitchin for every depot manager.
13. However, public resentment arose from long waiting lines, overloading, discourtesy of crews and roadside staff and general lack of customer care. A particular complaint was issuing tickets outside the bus even on rainy days. This practice not only inconvenienced passengers but also impaired bus utilisation.

1958 nationalisation: the Ceylon Transport Board

14. In 1958, following intense consumer and media pressure, and in conformity with post-war British practice, bus services were nationalised and placed under one organisation, the newly formed Ceylon Transport Board (CTB). The CTB quickly improved transport services, but later their quality declined as inflation forced costs up and politics kept fares down and denied funds for fleet replacement and expansion.
15. The Government's decision to take over the bus services was based on public, worker and media agitation, on the carefully considered report of a Commission of Inquiry, and on its awareness that public transport was run by the public sector in most parts of the world. The GOSL created the CTB to absorb all the operating companies and to change the primary mission of bus operation from profit to public service.
16. The CTB commenced operation on 1st January 1958 with several advantages including:
 - (a) public goodwill and worker enthusiasm;
 - (b) good advice from a particularly able London Transport team;
 - (c) six months of intensive preparation;
 - (d) a fine mix of seconded senior civil servants and the best of managers from the erstwhile companies;
 - (e) a Chairman with flair (a former senior civil servant of high repute who had established the first radio-taxi company in Lanka).
17. Among the management and operation matters taken up by the CTB from the start were:-
 - (a) scientific scheduling;
 - (b) linking bus routes across towns;
 - (c) route replanning;
 - (d) minimising terminal stand time;
 - (e) optimising bus utilisation;
 - (f) recording relevant statistics;
 - (g) training schemes for all levels;
 - (h) research (mechanical and operational).

18. For appraising depot performance, two of the most important statistical measures were AVU (average vehicle utilisation) being average miles per operated bus per day, and TURNOUT, being run-out as a percentage of Time Table Requirement.
19. The achievements of the CTB included:-
- (a) improving AVU from 96 miles/bus/day of pre CTB companies, to 157;
 - (b) creating a coherent network of routes in Colombo, thereby relieving the central terminals and nodal hubs of excessive bus layover, and reducing the need for passengers to interchange;
 - (c) penetrating city cores from which buses were hitherto excluded;
 - (d) organising on-the-road inspectors to assist loading at busy points at busy times, and to protect revenue;
 - (e) issuing comprehensive performances and accounting information;
 - (f) publishing a route map of Greater Colombo;
 - (g) penetrating remote rural areas hitherto unserved by buses;
 - (h) obtaining an overall system network that was considered on of the best in South and South-East Asia, equal or superior to that of Singapore at the time, and superior to Bombay or Madras;
 - (i) treating the route or the network as a cost center.
20. This success was marred by several defects, some self-imposed and some imposed by the political environment and other external factors. Most serious was government restriction of fare increases without adequate and willing compensation for the difference between rising costs and revenue at the permitted fare levels.
21. Apart from fares, there was no regulatory control over bus operation. Hence the CTB did not have to apply to Commissioners or to other authorities in regard to new routes, bus-stop location, terminal development, bus-size and layout etc. This enabled the CTB to innovate. Indeed innovation was a hallmark of the CTB. It was willing to take risks in bus design, route development etc., calling off those experiments which did not achieve success over an appropriate trial period.
22. In particular it inaugurated late night services and noted the phenomenon (see para. 50 below) that, as later and later buses were added, the last bus invariably obtained a poor load, whereas the penultimate bus enjoyed a more than break-even load and the pre-penultimate and prior buses were prosperous enough to pay for the last bus. This provided a lesson to the non-systems-oriented conservative minority of CTB managers who would have successively cancelled the last unprofitable trip in the belief that they would thereby cut losses.

23. However the CTB ran into great difficulty and disfavour of public and media after 1975 due to the following, among other factors:-
- (a) some precipitate trade union actions
 - (b) growing complacency of management
 - (c) political intervention of non-policy variety
 - (d) an upsurge in demand (17% in 1978/79) with which it could not cope without funds to increase the fleet.
 - (e) reluctant government support.

Regional transport boards

24. In 1978 services were decentralised by the formation of nine Regional Transport Boards (RTBs), with the central agency, re-named the Sri Lanka Central Transport Board (SLCTB), having a coordinating role. It was also responsible for procurement and for major equipment overhaul. The Chairmen of the RTBs (all appointed by the GOSL) constituted the majority on the SLCTB governing board. However the style and spirit of the CTB management and operations did not undergo significant change, nor did service deficiency and public discontent.
25. The regional boards, with rising costs, aging overstretched fleets and pegged fares, had great difficulty in maintaining their equipment to meet public demand. For this reason, and because of its ideological leanings, instead of injecting funds to increase the RTB fleets and meet the fare level deficiency, in 1979 the government broke the regional monopolies by allowing private operators to enter the field and provide service, initially to complement and later to compete with the RTBs.
26. Within a 60-year period, Sri Lanka's bus services thus went through a cycle of unregulated competition, radial private route monopolies, nationalisation and revived competition. This process has been described diagrammatically by Diandas, as shown in **Figure 1**. The costs to the people of Sri Lanka, in terms of poor accessibility and wasted resources, have been substantial.

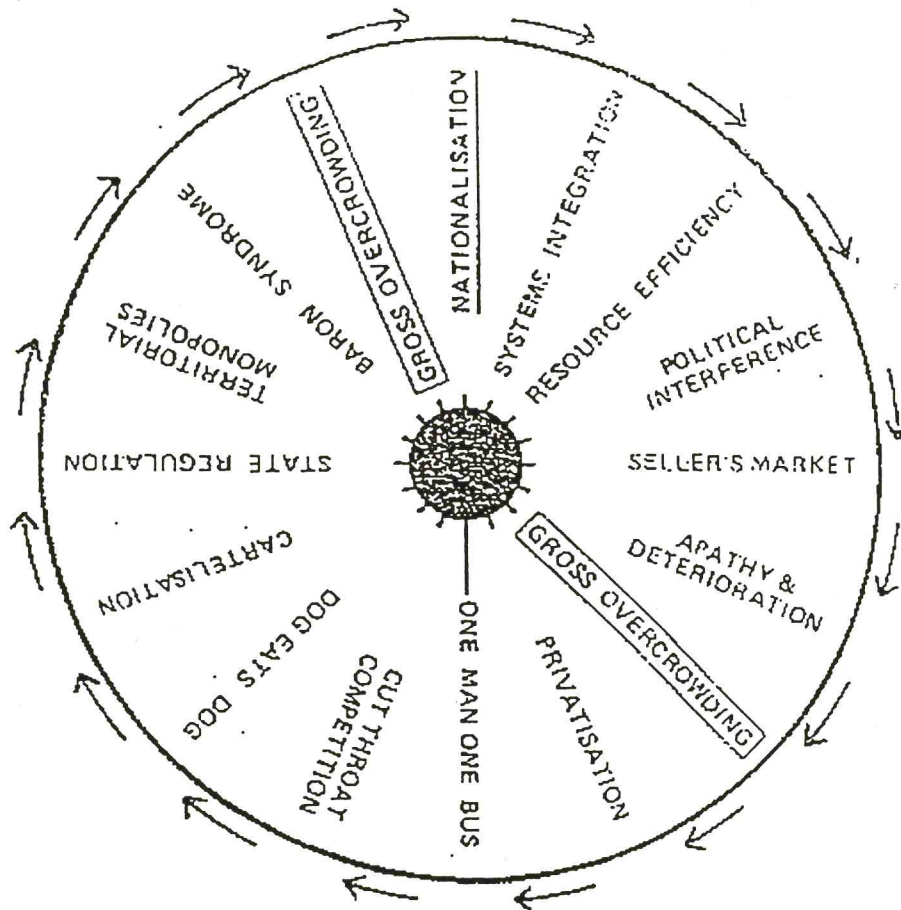


Fig. 1 - Bus history cycle

Source: Diandas (1989)

THE CURRENT SITUATION

The new private bus operators

27. The overwhelming majority of those responding to the government invitation were individual entrepreneurs who acquired one bus each. The availability of reconditioned Japanese 29-seaters encouraged this trend. The importers of these vehicles, and later second-hand dealers and brokers, reaped substantial harvests. Just a few tour bus operators joined in with modest fleets. Only one reputable mercantile company entered the field but retired after a month.

28. The resultant fleet grew from an initial 2,000 vehicles to a now stabilised fleet of approx 12,000, of which 95% of the owners have only one bus. This multi-ownership feature dictates the operating practices because for such owners the cost center is a single bus and the trip which it plies. This cost-center factor leads to the following practices:-

- (a) not departing the terminus until the bus is full;
- (b) buses wait their turn at the terminus;
- (c) racing during peaks to reach key demand points ahead of rivals;
- (d) hanging back at key points during off-peaks to entice passengers who would otherwise take a following bus;
- (e) stopping between authorised stops, sometimes in mid-road to pick-up passengers who hail;
- (f) starting a few minutes ahead of a government bus;
- (g) conniving with government bus crews to divert passengers;
- (h) shouting out their destinations at bus-stops;
- (i) congregating on popular routes and popular times where the symptoms of demand are seen, thereby enlarging the catchment area of such routes and diminishing the demand on parallel routes.

29. Many of these practices can be seen in other cities which encourage one-bus owners, and are recorded in researched and other histories of early days in Europe. Similarities can be observed in deregulated Britain today.

30. Although a Sri Lanka research study (Ranasinghe 1985) showed an average entrepreneur durability of just 3 1/2 years, there is no lack of aspiring operators, many of whom are returnees from employment in West Asia who bring home a useful termination bonus and wish to be their own boss. Thus the predominance of one-bus owners continues, and in general so does an over-supply of buses on popular routes. This over-supply is evidenced by queues of buses waiting their turn at the termini, which causes local authorities to look for "overflow" bus parks. It also induces self-appointed brokers (called "runners") to control departures for a fee. Thus informal regulation substitutes for official control.

31. Bus owners obtain individual operating permits for their buses. Unlike small operators in other countries, Sri Lanka operators do not generally work in route associations. This tendency was strengthened by a 1991 announcement by the National Transport Commission abolishing many of the associations that then existed, owing to irregularities found in some of them. Fares were theoretically self-set by the operators, but largely based on RTB (and later Peoplised) fares, and increases were restrained by threats of permit cancellation. Services within provinces are regulated by provincial transport authorities, and inter-provincial

services by the National Transport Commission. The regulatory authorities recommend routes and often despatch buses from terminals. Thus many of the private bus operations are effectively directed by public sector officials. A system of district private bus associations regulated by Government broke down because of alleged corruption by elected and employed association officials.

The "peoplised" bus companies

32. The systems-oriented RTBs could not compete on equal terms with symptom-oriented private operators. They could not, for example, stop at unauthorised places and could not advance their timings ahead of the private operator. Hence their deficits increased and government decided to transfer all depots to the workforce. Following the advice of consultants, it decided to wind down the Sri Lanka Central Transport Board and the Regional Transport Boards and to replace them by independent bus companies based on depots. As the GOSL was also interested to encourage worker shareholding, it adopted the unique Sri Lanka solution of giving half of the shares of each new bus company to its workers. The rest of the shares were retained by the GOSL for subsequent sale to private interests. As the process was not exactly privatisation, it was decided to call this transformation "Peoplisation". The Peoplisation process started in 1989, and by 1994 all the depots (except those in the northern conflict areas) have been transformed into 93 operating companies at a cost of Rs 4.8 billion. However, land and buildings were excluded from the process and remain in the hands of the Government.
33. These new companies have continued many of the best CTB practices, but have also tried to copy the private operators. For example:-
- (a) splitting the CTB-innovated cross town linked routes;
 - (b) withdrawing late services;
 - (c) catering to profitable routes at the expense of others;
 - (d) treating bus runs as cost centers and paying incentives accordingly.

Some current problems

34. Despite the statistics indicating a steady increase in bus passenger traffic in Sri Lanka (Table 1), there is a widespread perception that passengers carried on its 3,000 bus routes do not obtain good service, especially outside peak periods. This perception is supported by observation of Colombo's crowded buses.

Table 1. ESTIMATED BUS PASSENGER TRAFFIC IN SRI LANKA

Millions of passenger-km

Bus ownership	1980	1983	1986	1989	1992
Publicly-owned	22,700	16,884	15,149	12,980	16,098
Privately-owned	2,600	13,300	15,669	21,515	26,668
	—	—	—	—	—
Total	25,300	30,184	30,818	34,495	42,780

Source: *Sri Lanka Transport Statistics: 1992*

35. Table 1 also indicates that the recent increase in bus passenger-km is the net result of a decline in traffic carried by the publicly owned and peoplised buses, which was more than off-set by the substantial increase in the traffic carried by private buses. This change has significant consequences, because the privately-owned buses tend to be smaller than the full-sized buses used by the peoplised bus companies, and the private companies are much smaller.
36. On the positive side, users of the smaller buses on busy routes benefit from less waiting time due to the higher frequencies associated with the smaller vehicles.
37. On the negative side, the private buses operate only one daily shift, and do not offer service outside busy periods nor in remote areas. The reasons for this are not entirely clear. It is evident that private operators will choose to operate in the hours that maximise their profits. They do not like double-crewing on the grounds that one driver wedded to a bus will look after it more carefully, so they do not like to reduce the fixed crew from 12 to 8 hours and employing a second crew to cover the least rewarding hours.
38. Another negative consequence is that standing in a small bus is even less comfortable than standing in a large one.

39. One of the most common complaints is that buses do not move from their route starting points until they are full, and that they then have only crowded standing room for passengers at intermediate points. Examples have been reported of buses waiting up to one hour in terminals before moving off. While this practice may be rational from the point of view of individual bus owners, it can lead to queues of empty buses at the starting points while passengers are being packed sardine-style at the intermediate points. This contrast is not acceptable to those who use and regulate bus services. There are also numerous complaints relating to speeding and other unsafe operations, and to insufficient boarding and alighting time being allowed to passengers.

Summary of the current situation

40. The end result is a shabby inadequate system and substantial growth in two wheelers and chartered van service. These divert a large articulate middle class segment of the travel market from buses. There is no innovation because only a group can establish a new route at a frequency and regularity likely to attract demand.

REFLECTIONS ON THE SEARCH FOR A REMEDY

41. The above discussion is based on empirical observations and common knowledge, yet these observations provide evidence that illustrate relevant theoretical concepts.

Inability of private operators to provide route service

42. One-bus operators have important advantages. Their owners are strongly motivated to care for their equipment and to control their cash flow. Where crews (drivers and conductors) are employed, pilfering can be obviated by letting the crews keep all takings above an agreed minimum. Additionally, buses, especially minibuses, require relatively small capital investment and therefore offer a relatively affordable starting point for aspiring entrepreneurs.
43. But one-bus operators cannot serve a route without an appropriate organisation. Bus-users need services that operate at a reliable and predictable frequency. Additionally, users expect some service at unpopular hours, such as late at night. Individual operators acting on their own cannot provide these desirable characteristics. The demand for bus service in urban areas is not that of identified groups wanting a trip from point A to point B. An individual bus trip does not match the substance of the demand which is for a flow of buses along a route at attractive, regular, reliable frequency. However, demand is for even more than this: it is for a service which assumes a flow of return trips later in the day and a flow of connecting services. In other words, demand requires a system or a network of known services.

44. This is especially so in cities where the majority of demand is by occasional visitors to the city who have multiple objectives. Their demand is not just for a trip to the city and a trip back, but for a network which will enable them to perform several tasks. Where the network does not supply their real needs, demand will be diverted to where supply is apparent, thus distorting catchments and making demand appear to be on a substantially served route. It is impossible for individual operators to diagnose the diversity of demand, let alone supply it.
45. Rural services are quite different. A concentrated predominant demand exists for services to and from the nearest market town. Such service can probably best be supplied by an entrepreneur in the rural origin. He will have close ties to the patronage and keep his bus at home overnight.

Meanings of "healthy competition"

46. It is often considered that free markets are inconsistent with governmental provision of goods and services. This is not so, as long as the government allows competition against its own services on equal terms. Freidrich Hayek put the matter as follows:
- So long as government uses any of its coercive powers, and particularly the powers of taxation, in order to assist its enterprises, it can always turn their position into one of actual monopoly. To prevent this, it would be necessary that any special advantages, including subsidies, which government gives to its own enterprises in any field, should also be made available to competing private agencies ... [What is objectionable here is not state enterprise but state monopoly]. (Hayek, 1960).*
47. The GOSL took the same approach when it established the National Transport Commission. The Commission is required "to ensure healthy competition between providers of [omnibus] services" (Preamble to the National Transport Commission Act).
48. Unfortunately, "healthy competition" in the context of bus services is a difficult and controversial concept on which there is plenty of room for disagreement. Two views are commonly held:
- (a) One view equates "healthy competition" with "contestability", the freedom to enter the market at will. According to this view, society benefits when all its members, including those who provide bus transport, are free to offer their products without restraint, except in the case of items (such as drugs or pollution) that are excluded from economic markets for societal reasons.

- (b) The second view holds that provision of bus service entails public obligations which have to be accepted by all the competitors if the competition is to be "healthy".
49. Both these approaches command wide support, and either may be applicable in the transport sector, depending on the circumstances. But we believe that the second view is more relevant to bus services, because travellers require access to a reliable and extensive transport *network* which takes time and effort to build, and that it is destructive of the network to allow it to be exploited by suppliers who have done nothing to build it up, and who do not have a stake in its long-term development.
50. Diandas (1989) illustrated this point with the example of the "last bus" added to the schedule of the route linking Borella to Kotte which, though loss-making in itself, increases the business of the preceding buses (Figure 2 overleaf and para. 22 above).
51. Where networks are irrelevant or where they can be created spontaneously $\frac{3}{4}$ in the taxi business for example $\frac{3}{4}$ it is difficult to justify restrictions on the entry of individuals into the market. But in the case of route service there can be a case, in order to promote "healthy competition", to exclude individuals who, for technical reasons, could not possibly provide route service on their own.
52. Consider the analogy of a shopping center set up by a building owner who rents space to stores. In addition to the individual stores, the center contains common facilities such as a bus terminus, lighting, waste collection, washrooms. All these are paid for, either by the landowner or by the rents of the individual store operators. Under these circumstances, would it be "healthy competition" to allow other traders, who pay nothing towards the common facilities, to set up stands on the walkways to carry on business there? Such activities, which would probably violate the property rights of the building owner, could not possibly be considered "healthy competition", and the owner of the shopping center would generally be justified in prohibiting them.
53. But what if another shopping center was established across the road? A second center might hurt the first as much as the activities of itinerant traders, but would generally be accepted as an unavoidable risk of doing business in a commercial society.
54. To put the point differently, it seems to us that public transport users can be compared not to consumers seeking disparate services, but more to members of a club, sharing a common interest $\frac{3}{4}$ the availability of reliable and predictable public transport. Some travellers do literally form transport clubs: Houston, New Delhi, and Seoul, are cities in which employees pay monthly subscriptions to participate in clubs that hire buses to take them to and from their work-places at pre-set times.

56. But a club to ensure the provision of route service would be much more difficult to set up than a club offering journey-to-work facilities. How, then, can travellers obtain public transport services responsive to their needs? Does public transport exhibit the characteristics of "market failure" which requires the intervention of government? Or can services responsive to public demand be provided privately by suitably-organised markets?
57. The remainder of this paper will explore alternative solutions to this problem. We offer alternative approaches to setting up suitable arrangements in the real world: a "governmental" approach and a "free market" one.

A GOVERNMENTAL APPROACH

58. Any solution which could take Sri Lanka on the road to a dignified, efficient, user-friendly bus service, similar or better than what it had earlier, would need to address two fundamental issues:
- (a) the form of undertakings responsible for planning and operating bus services, and the corresponding authority to regulate such services.
 - (b) the financing of bus services through fares policy and financial support policy.
59. The foregoing discussion has not included the financing issue, but it should be assumed that any government, (central, provincial or local) which restrains fares should fully compensate the difference between pegged fares and reasonably computed operating cost. This compensation can be derived from general or dedicated taxes, the latter supported if necessary by American-style local referenda.
60. So far as organisation is concerned, the empirical evidence shows that a systems or network approach to bus supply can only emanate from service integration. This could be arranged through one of the following configurations of ownership, operation and regulation:-
- (a) Government-owned metropolitan provincial or district undertakings backed by private operation of rural and suburban feeder services, or
 - (b) Large private sector organisations, like SBS in Singapore or KBC in Kowloon with similar scope to that of government-owned bodies, or
 - (c) A system of franchising, similar to that in London today, whereby routes in a network planned and devised by a controlling government body, are franchised to competent operating companies.

61. Since public transport is in effect an infrastructural service upon which industry (private or government owned), business and society as a whole are vitally dependent, it is probable that publicly-owned bodies would be more successful, more flexible, more innovative and more socially responsive. However such government bodies need entrenched constraints to prevent earlier perceived and real ills, such as political intervention at less than policy level, and non-professional appointment to boards and top management, and to promote appropriate management/employee harmony. Some degree of political responsibility can be achieved by having governing boards nominated by more than one local government, or by opposition as well as government legislators.
62. Publicly-owned bodies do not need regulation of details which would inhibit innovation, but private bodies or persons who are primarily profit-motivated do need more supervision. Franchised operators can be controlled by their franchise agreements, yet cannot easily respond, as can public or private monopolies, to sudden cross-franchise demand needs.
63. On the whole, Sri Lanka would appear to need the following organisational hierarchy:-
- (a) A Metropolitan-wide undertaking to run bus services over the whole of each city and its suburbs.
 - (b) A District-wide undertaking to operate networks in non-metropolitan districts.
 - (c) Private operation of isolated rural and suburban feeder services.
 - (d) Provincial regulating authorities with minimum rather than maximum powers.
 - (e) Municipal and/or local government ownership, financing and control of bus terminals and bus-stops, with suitable advice from road, police, and passenger representatives.
 - (f) A statutory role for consumer (passenger) representation.

A FREE MARKET APPROACH

64. Those inclined to free market solutions would be concerned to avoid the anarchic conditions prevailing in Sri Lanka's bus sector under the guise of "free enterprise". Essential components of market solutions are suppliers' property rights, giving them long-term interests in the services being supplied. As shown above, such rights are entirely absent in Sri Lanka's privately-provided bus route services, because of the unfocussed participation of one-man operators who are unable to provide individually the service quality desired by their customers.

65. To establish such property rights, a free market approach to the provision of route service in Sri Lanka could include the following elements:

- (a) Service requirements are laid down by travellers' representatives;
- (b) Potential service providers register their capabilities;
- (c) Qualified providers offer service;
- (d) Competition between qualified providers is encouraged;
- (e) Fares are determined freely and competitively;
- (f) Safety inspections are the responsibility of insurance companies.

Laying down service requirements

66. The first step in the process is for the travellers' representatives $\frac{3}{4}$ assumed to be the relevant local governments $\frac{3}{4}$ to specify the kind of service needed, including a description of the route, the times of service and the frequency at different periods of the day, and other requirements such as the size and/or age of vehicles, maintenance facilities, etc.

Registering qualified providers

67. Meanwhile, a central agency $\frac{3}{4}$ in Sri Lanka the National Transport Commission $\frac{3}{4}$ maintains a register of entities able and willing to provide route service. These entities should be bus companies, ("Peoplised" and others) and approved "route associations", ie. associations of bus owners meeting approved standards such as being able to offer regular schedules and late night service. The Empress' of Buenos Aires, the Jeepneys of Manila, the Por Puesto in Caracas and the Dolmus in Istanbul are well-documented examples of associations of vehicle-owners formed to serve routes in common (Roth, 1987). Such associations existed in Sri Lanka during the early 1980s, but they were disbanded after some were found to have had corrupt managements. Their restoration $\frac{3}{4}$ without the corruption that led to schedules being influenced by bribery $\frac{3}{4}$ might have a role in the free market approach to improving route bus service in Sri Lanka.

Selecting providers and encouraging competition

68. The travellers' representatives $\frac{3}{4}$ still assumed to be the relevant local governments $\frac{3}{4}$ would then invite all the appropriate qualified entities (ie. bus companies or route associations big enough to meet their needs) to bid for a service contract, the bid to be on the basis of the lowest acceptable standard fare. To ensure variety, separate bidding could be invited for different classes of service, for example, bids could be invited for (a) the provision of guaranteed "all-seated" service and (b) for a service that permitted standing. In any event, a minimum of two competing services would be selected and appointed for initial service.

Posted fares freely determined

69. Fares would be protected from inflation and would be determined initially by the bidding process described above. After a suitable period $\frac{3}{4}$ say one or two years $\frac{3}{4}$ route specifications and fares could be changed and new entrants allowed to operate competitively in all areas. Areas over-served would be likely to offer below-normal profits, which would induce some of the suppliers to take their business $\frac{3}{4}$ and their vehicles $\frac{3}{4}$ elsewhere.

Safety the responsibility of concerned insurance companies

70. Safety is generally regarded as an important concern of licensing authorities which, are therefore responsible for vehicle and driver testing. Not all licensing authorities perform this function well. John Semmens (1995) has recently suggested that this responsibility might be more appropriately placed with the insurance companies that competitively insure the relevant vehicles and drivers. These companies, which would have to meet legal claims for compensation, would have strong commercial incentives to establish reliable testing procedures, and could either refuse insurance or raise premiums to high-risk service providers. Competition among insurance companies would be necessary to prevent abuse by them.

Competition could provide for system flexibility

71. These proposals are designed to enable a new system of bus regulation to be launched in a country such as Sri Lanka. After an initial period, arrangements would have to be made more flexible, to enable existing contracts to be terminated where appropriate, and to allow newly-qualified public transport providers to enter the market. The simplest way to do this might be to allow any qualified provider to enter any public transport market. The forces of competition would then force out suppliers who fail to satisfy public transport users.
72. At that point, the bus services would operate in accordance with the principles governing competitive markets. These apply to such services as restaurants which, when qualified by government inspection, can serve whom they please and charge what they will. The government would still have the task of certifying the qualifications of those wishing to provide route service.

REFERENCES

- DIANDAS, J. (1989), "Bus managers and users viz a viz ownership, regulation, competition and systems". PTRC 17th Summer Annual Meeting, *European Transport and Planning*, Proceedings of Seminar D.
- HAYEK, Freidrich (1960), *The Constitution of Liberty*, p. 224, University of Chicago Press.
- RANASINGHE, Dr Mrs. P C H (1988), *Private bus transport in Sri Lanka*, Friedrich-Ebert-Stiftung, Colombo.
- ROTH, Gabriel (1987), *The Private Provision of Public Services in Developing Countries*. Oxford University Press (New York), for the World Bank.
- SEMMENS, John (1995), "Combining the Issuance of Vehicle Registrations, Drivers' Licenses & Auto Insurance". In *Reinventing Government* (Editor Mary Gifford), The Goldwater Institute, Phoenix, Arizona.
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NOTE

The contribution of John Diandas has been developed and published in journals and conference proceedings over many years before he was recently appointed as Chairman of Sri Lanka's National Transport Commission and Acting Chairman of its Urban Development Authority. Hence none of the opinions expressed in this paper can be attributed to those institutions.